

Light efficiency:

48 Lumen/Watt

Output: 700 lm

Light quality:

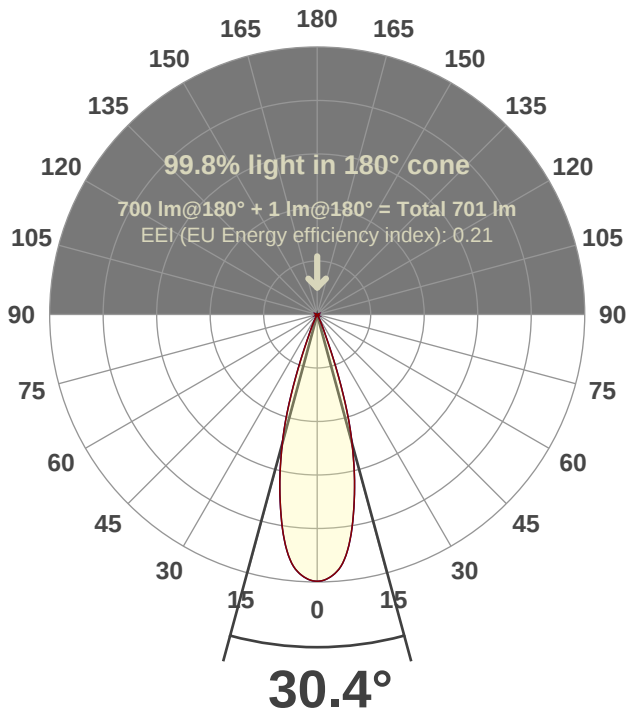
CRI: 92.7

Peak: 2801 cd

Power: 14.7 W



Beam angle



Test number:

CR4D-R-FL-C14-30k-40 (GRF-CZ20-FL-RD)

Luminaire Model:

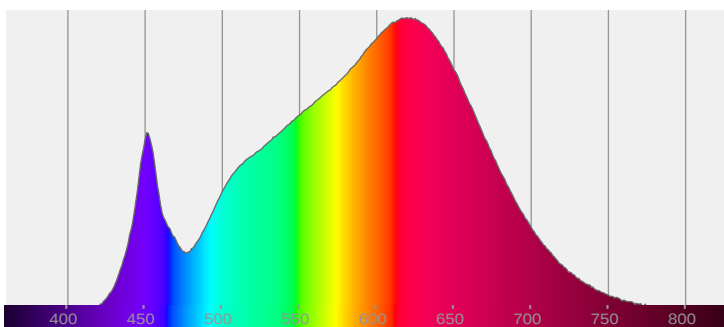
Core 4" Round Flat C14 30K 40°

Date and time:

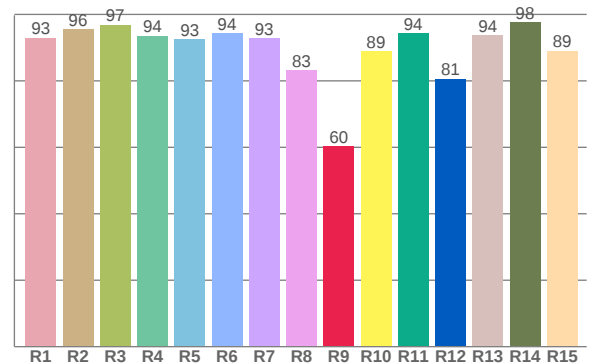
6/14/2017 5:32:31 PM

LUM: 700

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	60.3	91.9	100.2	91.0	0.428	0.401	0.247	0.346	-0.0002

R_f 91.9

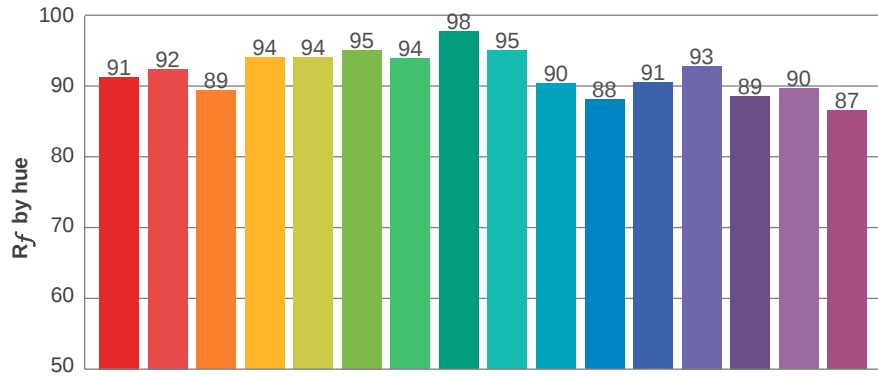
Fidelity index R_f

R_g 100.2

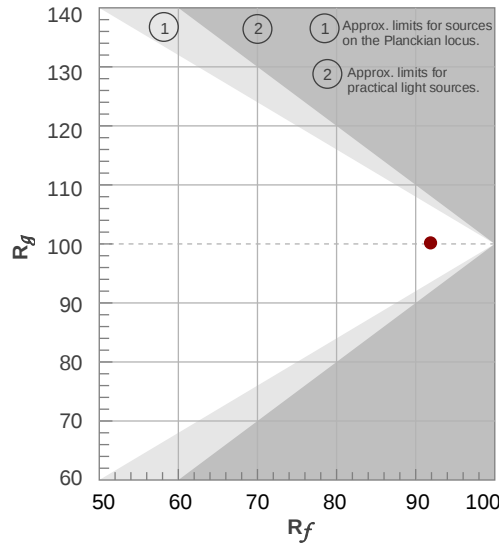
Gammut index R_g

TM30: 91.9

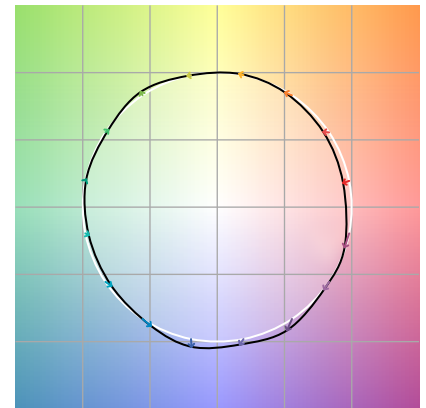
TM-30Color



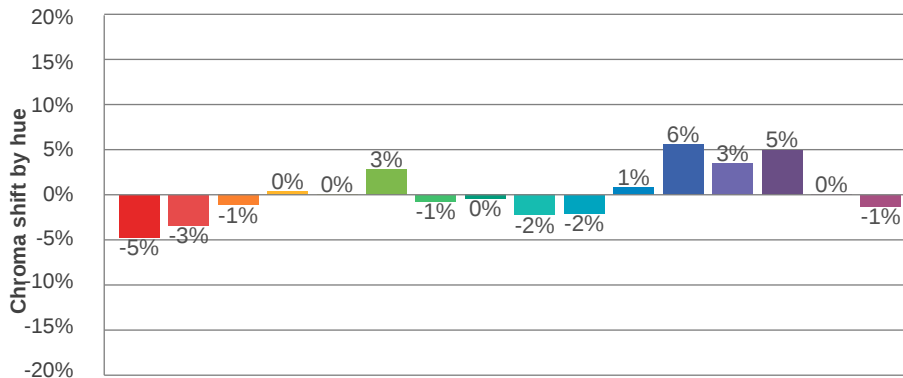
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	-1%
2	92	-3%	3%
3	89	-1%	5%
4	94	0%	3%
5	94	0%	3%
6	95	3%	0%
7	94	-1%	-3%
8	98	0%	-1%
9	95	-2%	2%
10	90	-2%	5%
11	88	1%	8%
12	91	6%	2%
13	93	3%	-3%
14	89	5%	-8%
15	90	0%	-7%
16	87	-1%	-11%



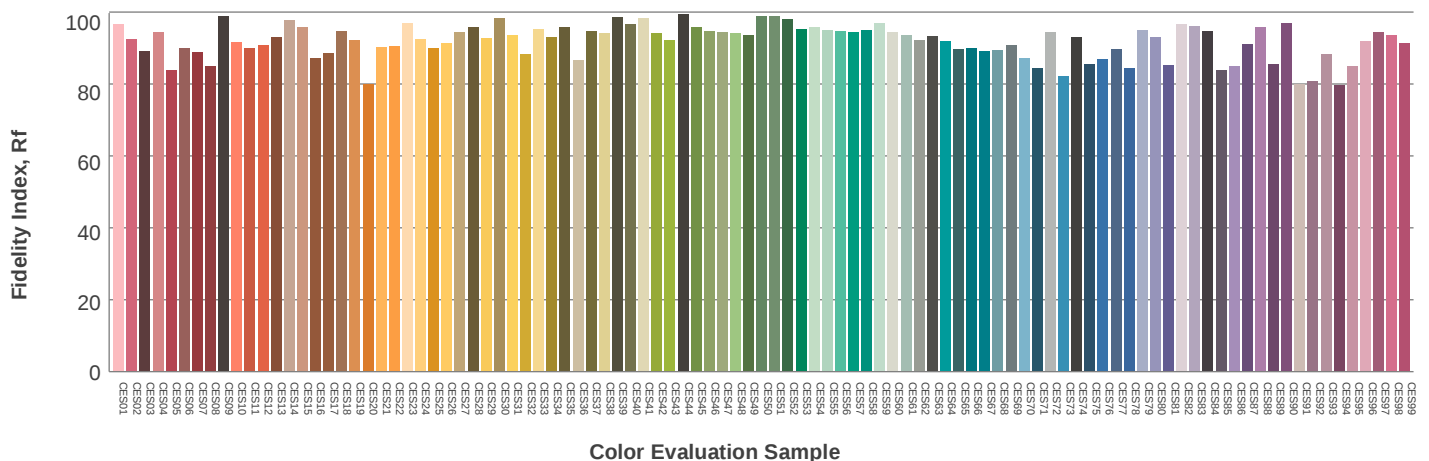
Color vector graphics



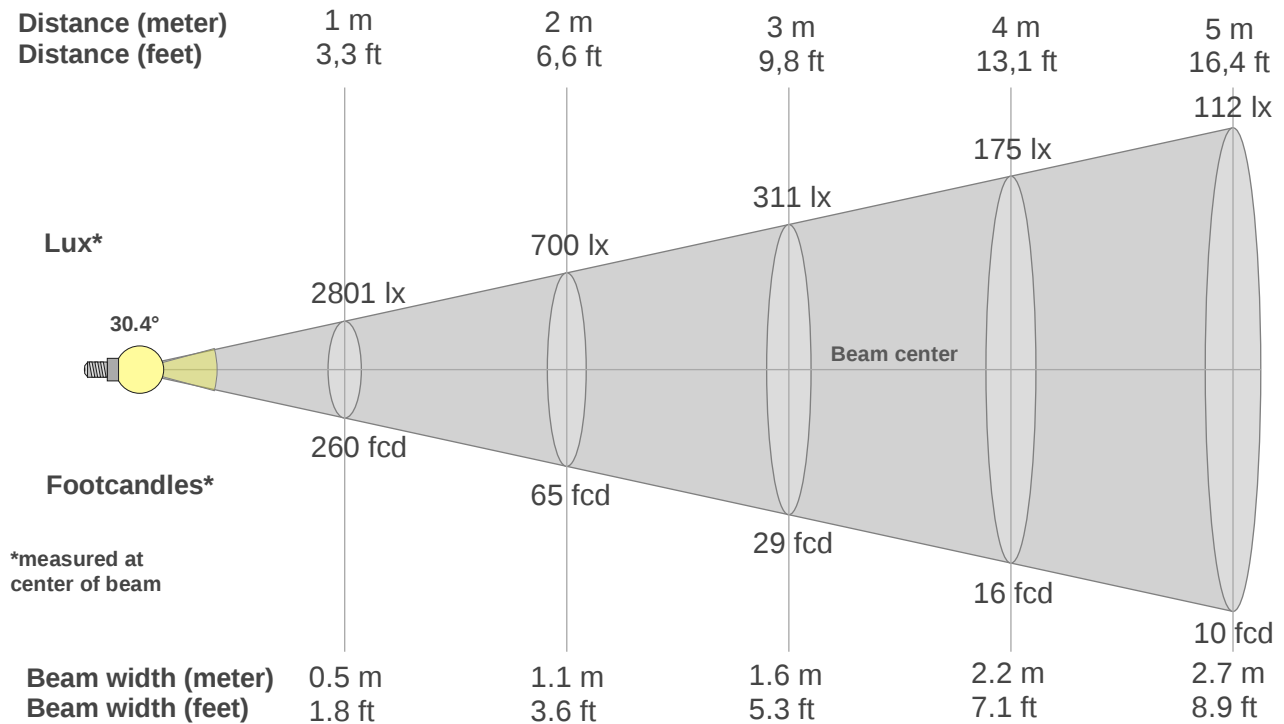
Color distortion



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
2801lx	700lx	311lx	175lx	112lx	78lx	57lx	44lx	35lx	28lx	23lx	19lx	17lx	14lx	12lx	11lx	10lx	9lx	8lx	7lx
260.2fcd	65.1fcd	28.9fcd	16.3fcd	10.4fcd	7.2fcd	5.3fcd	4.1fcd	3.2fcd	2.6fcd	2.2fcd	1.8fcd	1.5fcd	1.3fcd	1.2fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.7fcd

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°
2801	2781	2723	2614	2427	2174	1891	1588	1271	898	521	251	142	84	46	26	17	13	10	8
100%	99%	97%	93%	87%	78%	67%	57%	45%	32%	19%	9%	5%	3%	2%	1%	1%	0%	0%	0%

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°
2801	2781	2723	2614	2427	2174	1891	1588	1271	898	521	251	142	84	46	26	17	13	10	8
100%	99%	97%	93%	87%	78%	67%	57%	45%	32%	19%	9%	5%	3%	2%	1%	1%	0%	0%	0%

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°
2801	2781	2723	2614	2427	2174	1891	1588	1271	898	521	251	142	84	46	26	17	13	10	8
100%	99%	97%	93%	87%	78%	67%	57%	45%	32%	19%	9%	5%	3%	2%	1%	1%	0%	0%	0%

Intensities in 270° c-plane

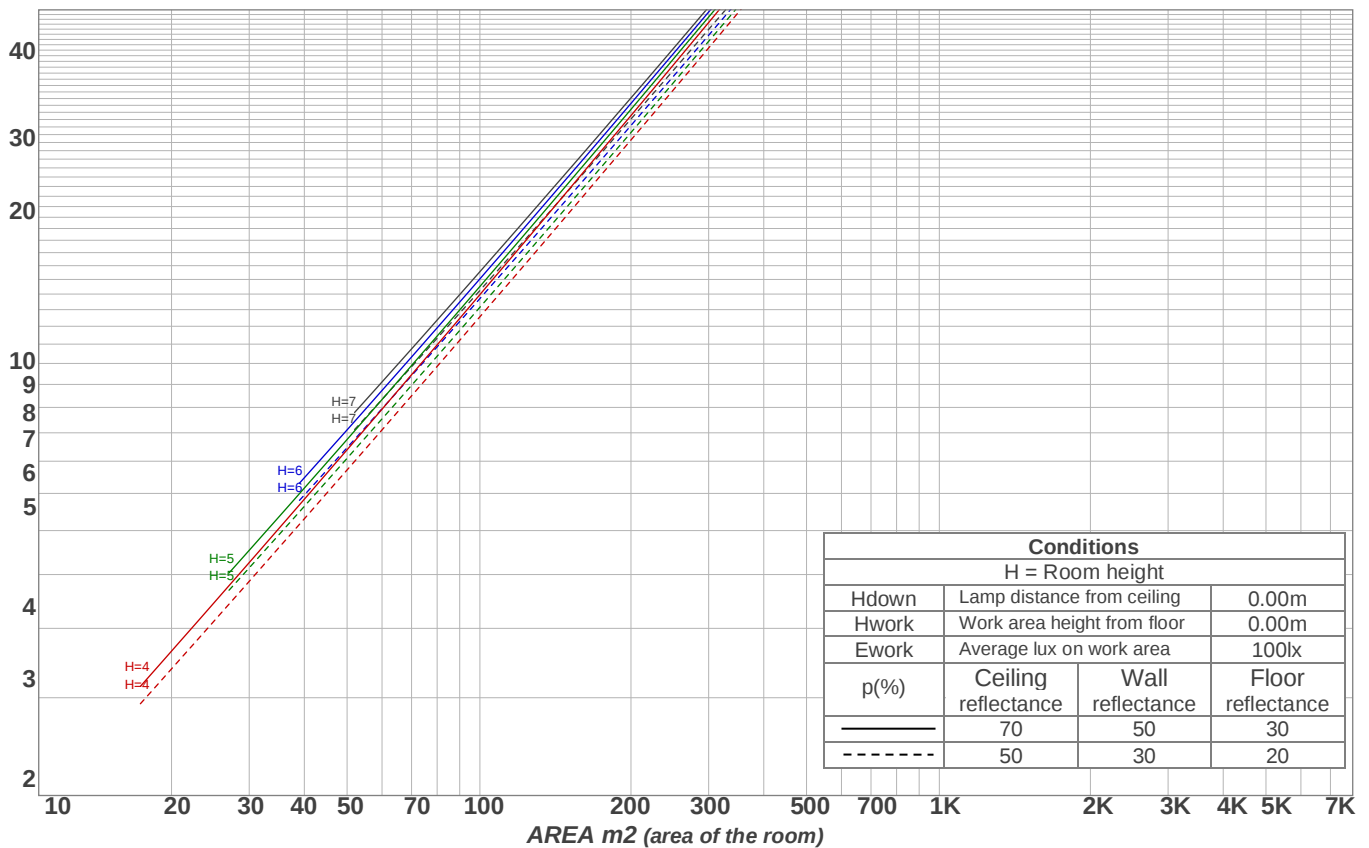
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
2801	2781	2723	2614	2427	2174	1891	1588	1271	898	521	251	142	84	46	26	17	13	10	8
100%	99%	97%	93%	87%	78%	67%	57%	45%	32%	19%	9%	5%	3%	2%	1%	1%	0%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30.4°	43.5°	53.3°	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	115	113	111	109	112	110	109	107	106	105	104	103	102	101	99	99	98	96
2	111	107	104	102	109	106	103	101	103	100	98	100	98	96	97	96	94	93
3	108	103	99	96	106	102	98	96	99	96	94	97	95	93	95	93	91	90
4	104	99	95	92	103	98	94	92	96	93	91	94	92	90	93	90	89	87
5	102	96	92	89	100	95	91	88	93	90	88	92	89	87	90	88	86	85
6	99	93	89	86	98	92	88	85	91	87	85	89	87	84	88	86	84	83
7	96	90	86	83	95	89	85	83	88	85	82	87	84	82	86	84	82	81
8	94	87	83	81	93	87	83	80	86	82	80	85	82	80	84	82	79	79
9	91	85	81	78	91	85	81	78	84	80	78	83	80	78	82	80	77	77
10	89	83	79	76	88	82	79	76	82	78	76	81	78	76	80	78	76	75

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
240 lm	371 lm	65.8 lm	7.70 lm	2.92 lm	1.72 lm	2.85 lm	4.04 lm	3.99 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	13.5	13.9	13.6	14.1	14.3	13.5	13.9	13.6	14.1	14.3
	3H	17.2	17.8	17.6	17.9	18.1	17.2	17.8	17.6	17.9	18.1
	4H	19.6	20.2	20.0	20.4	20.6	19.6	20.2	20.0	20.4	20.6
	6H	22.6	23.1	22.9	23.4	23.7	22.6	23.1	22.9	23.4	23.7
	8H	24.3	24.7	24.6	25.1	25.4	24.3	24.7	24.6	25.1	25.4
	12H	26.1	26.5	26.4	26.9	27.3	26.1	26.5	26.4	26.9	27.3
4H	2H	14.5	15.1	14.9	15.3	15.5	14.5	15.1	14.9	15.3	15.5
	3H	18.8	19.2	19.1	19.5	19.9	18.8	19.2	19.1	19.5	19.9
	4H	21.3	21.6	21.7	22.1	22.6	21.3	21.6	21.7	22.1	22.6
	6H	24.3	24.8	24.8	25.1	25.5	24.3	24.8	24.8	25.1	25.5
	8H	26.1	26.5	26.6	26.8	27.2	26.1	26.5	26.6	26.8	27.2
	12H	27.9	28.2	28.4	28.7	29.1	27.9	28.2	28.4	28.7	29.1
8H	4H	22.3	22.8	22.9	23.1	23.5	22.3	22.8	22.9	23.1	23.5
	6H	25.7	26.0	26.2	26.4	26.9	25.7	26.0	26.2	26.4	26.9
	8H	27.6	27.8	28.1	28.4	29.0	27.6	27.8	28.1	28.4	29.0
	12H	29.6	29.8	30.2	30.3	30.9	29.6	29.8	30.2	30.3	30.9
12H	4H	22.7	23.0	23.2	23.4	23.9	22.7	23.0	23.2	23.4	23.9
	6H	26.2	26.4	26.7	26.9	27.6	26.2	26.4	26.7	26.9	27.6
	8H	28.2	28.4	28.8	28.9	29.5	28.2	28.4	28.8	28.9	29.5
Corrected glare indices referring to 700 lm total luminous flux											