

Light efficiency:

49 Lumen/Watt

Output: 716 lm

Light quality:

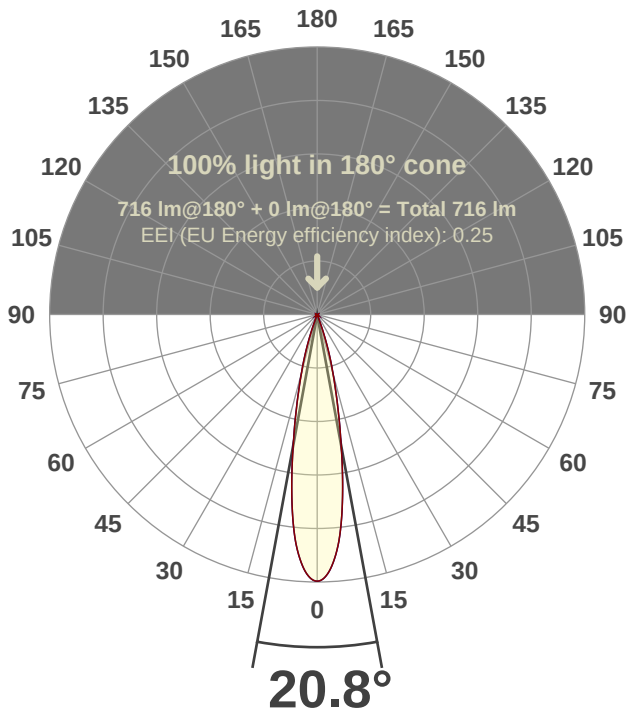
CRI: 93.2

Peak: 4884 cd

Power: 14.7 W



Beam angle



Test number:

CR4D-R-FL-C14-30k-24 (GRF-CZ14-NF-RD)

Luminaire Model:

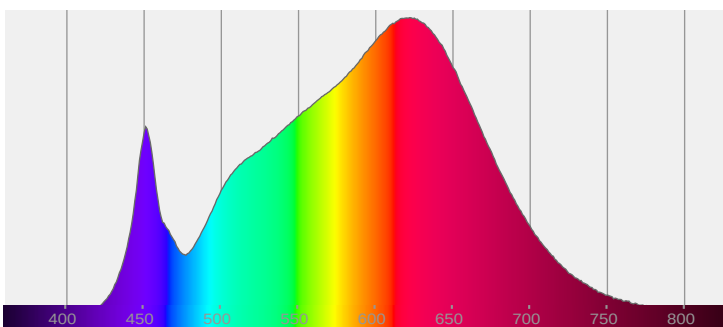
Core 4" Round Flat C14-30K 24°

Date and time:

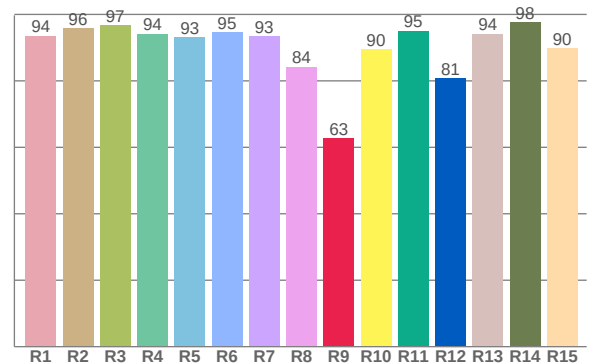
6/6/2017 10:48:20 AM

LUM: 716

Spectra



CRI: 93.2 (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
	93.2	62.7	92.2	100.3	91.4	0.429	0.401	0.247	0.346	-0.0001

R_f 92.2

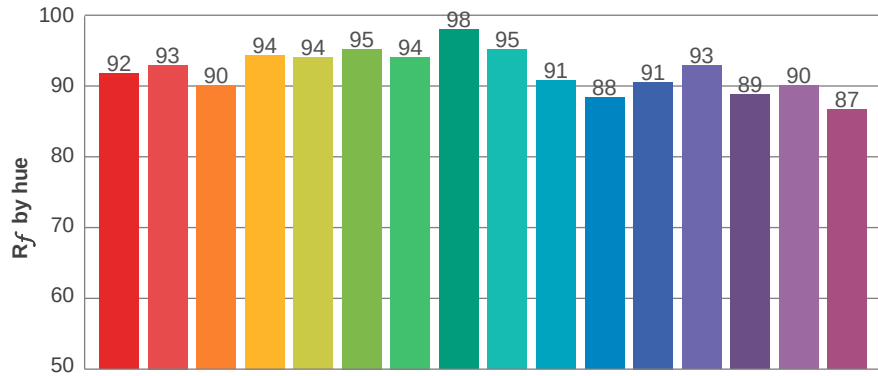
Fidelity index R_f

R_g 100.3

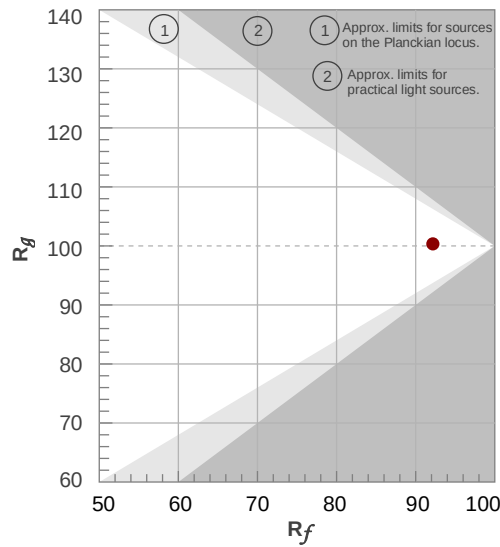
Gammut index R_g

TM30: 92.2

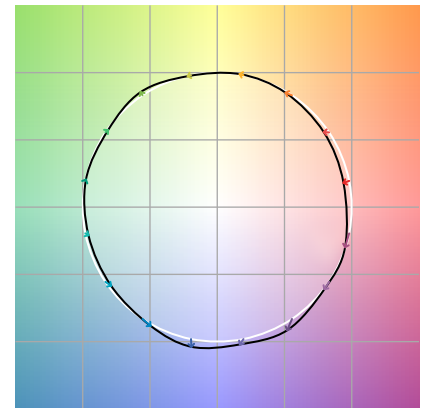
TM-30Color



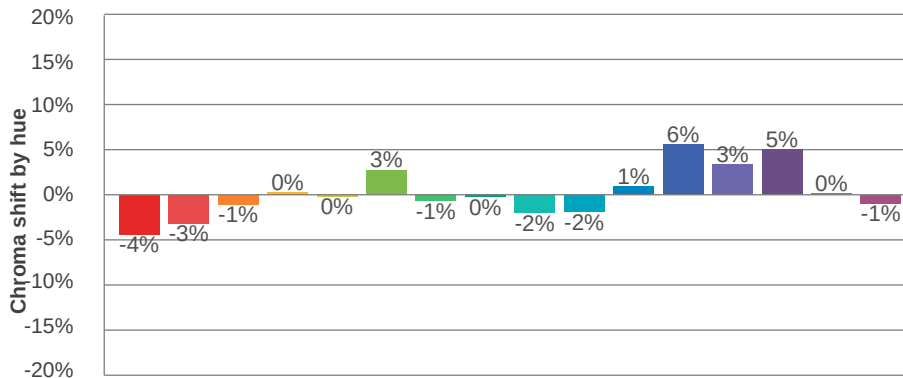
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	-1%
2	93	-3%	2%
3	90	-1%	5%
4	94	0%	3%
5	94	0%	3%
6	95	3%	0%
7	94	-1%	-3%
8	98	0%	-1%
9	95	-2%	2%
10	91	-2%	5%
11	88	1%	8%
12	91	6%	1%
13	93	3%	-3%
14	89	5%	-8%
15	90	0%	-6%
16	87	-1%	-11%



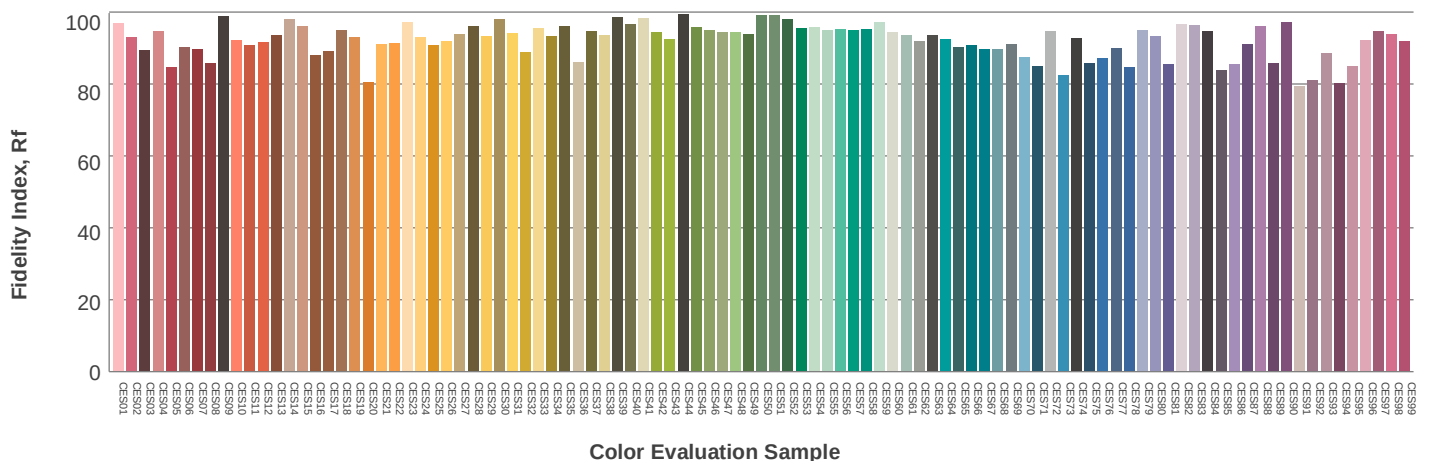
Color vector graphics



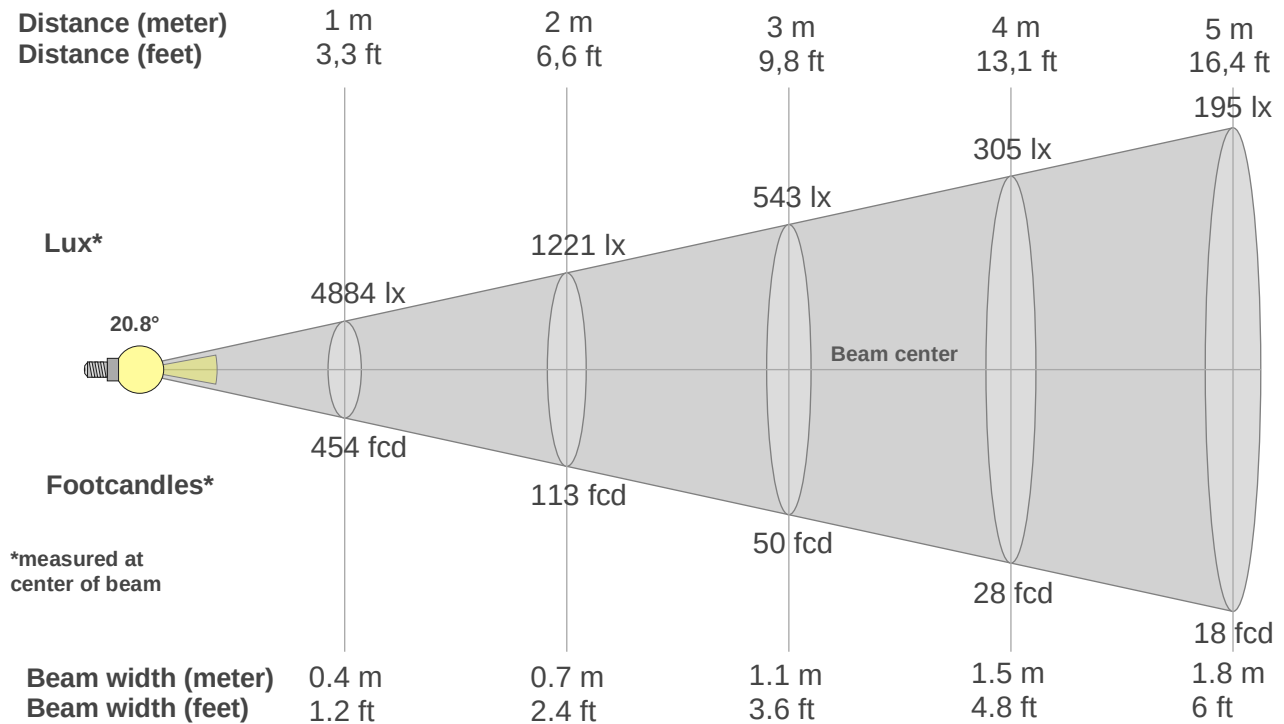
Color distortion



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
4884lx	1221lx	543lx	305lx	195lx	136lx	100lx	76lx	60lx	49lx	40lx	34lx	29lx	25lx	22lx	19lx	17lx	15lx	14lx	12lx
453.7fc	113.4fc	50.4fc	28.4fc	18.1fc	12.6fc	9.3fc	7.1fc	5.6fc	4.5fc	3.7fc	3.2fc	2.7fc	2.3fc	2fc	1.8fc	1.6fc	1.4fc	1.3fc	1.1fc

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°
4884	4860	4786	4665	4496	4287	4023	3704	3348	2972	2593	2235	1917	1627	1364	1135	943	752	565	393
100%	100%	98%	96%	92%	88%	82%	76%	69%	61%	53%	46%	39%	33%	28%	23%	19%	15%	12%	8%

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°
4884	4860	4786	4665	4496	4287	4023	3704	3348	2972	2593	2235	1917	1627	1364	1135	943	752	565	393
100%	100%	98%	96%	92%	88%	82%	76%	69%	61%	53%	46%	39%	33%	28%	23%	19%	15%	12%	8%

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°
4884	4860	4786	4665	4496	4287	4023	3704	3348	2972	2593	2235	1917	1627	1364	1135	943	752	565	393
100%	100%	98%	96%	92%	88%	82%	76%	69%	61%	53%	46%	39%	33%	28%	23%	19%	15%	12%	8%

Intensities in 270° c-plane

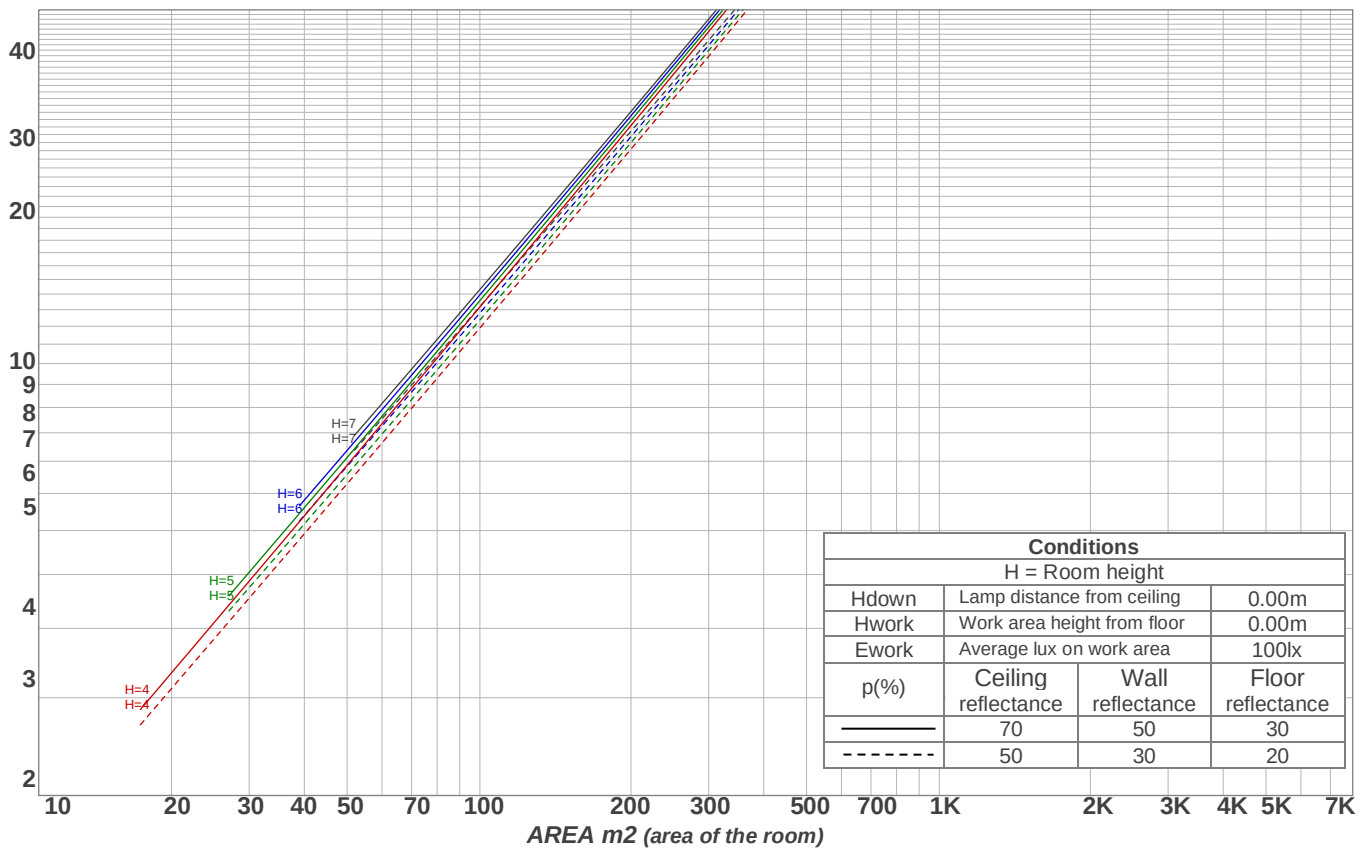
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4884	4860	4786	4665	4496	4287	4023	3704	3348	2972	2593	2235	1917	1627	1364	1135	943	752	565	393
100%	100%	98%	96%	92%	88%	82%	76%	69%	61%	53%	46%	39%	33%	28%	23%	19%	15%	12%	8%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
20.8°	36.9°	42.2°	98.4%	98.0%

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

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
353 lm	314 lm	24.5 lm	8.19 lm	2.94 lm	1.81 lm	3.09 lm	4.27 lm	4.20 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	13.9	14.2	14.0	14.4	14.6	13.9	14.2	14.0	14.4	14.6
	3H	17.7	18.2	18.1	18.4	18.6	17.7	18.2	18.1	18.4	18.6
	4H	20.0	20.5	20.4	20.8	21.0	20.0	20.5	20.4	20.8	21.0
	6H	23.0	23.4	23.3	23.7	24.1	23.0	23.4	23.3	23.7	24.1
	8H	24.6	25.0	24.9	25.3	25.7	24.6	25.0	24.9	25.3	25.7
	12H	26.4	26.7	26.7	27.1	27.5	26.4	26.7	26.7	27.1	27.5
4H	2H	14.9	15.4	15.3	15.7	15.9	14.9	15.4	15.3	15.7	15.9
	3H	19.2	19.6	19.6	20.0	20.4	19.2	19.6	19.6	20.0	20.4
	4H	21.7	22.0	22.1	22.5	23.0	21.7	22.0	22.1	22.5	23.0
	6H	24.7	25.2	25.2	25.5	25.8	24.7	25.2	25.2	25.5	25.8
	8H	26.4	26.8	26.9	27.1	27.5	26.4	26.8	26.9	27.1	27.5
	12H	28.2	28.5	28.7	28.9	29.3	28.2	28.5	28.7	28.9	29.3
8H	4H	22.7	23.1	23.2	23.5	23.8	22.7	23.1	23.2	23.5	23.8
	6H	26.0	26.3	26.5	26.7	27.3	26.0	26.3	26.5	26.7	27.3
	8H	27.9	28.1	28.4	28.6	29.2	27.9	28.1	28.4	28.6	29.2
	12H	29.9	30.0	30.5	30.6	31.2	29.9	30.0	30.5	30.6	31.2
12H	4H	23.1	23.4	23.6	23.8	24.3	23.1	23.4	23.6	23.8	24.3
	6H	26.6	26.7	27.1	27.3	27.9	26.6	26.7	27.1	27.3	27.9
	8H	28.5	28.6	29.1	29.1	29.7	28.5	28.6	29.1	29.1	29.7
Corrected glare indices referring to 716 lm total luminous flux											