

Light efficiency:

42 Lumen/Watt

Output: 881 lm

Light quality:

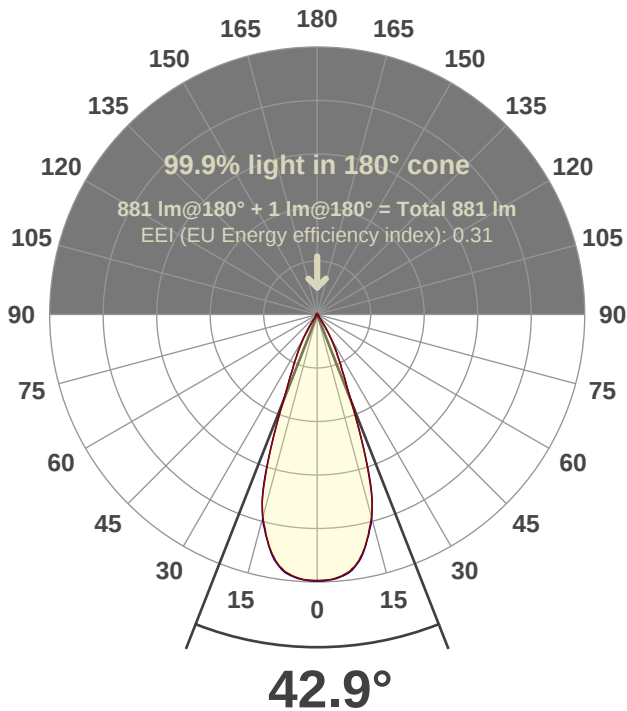
CRI: 92.4

Peak: 1808 cd

Power: 21.2 W



Beam angle



Test number:

CR4D-S-FL-C20-30k-55 (GRF-CZ20-WF-SQ)

Luminaire Model:

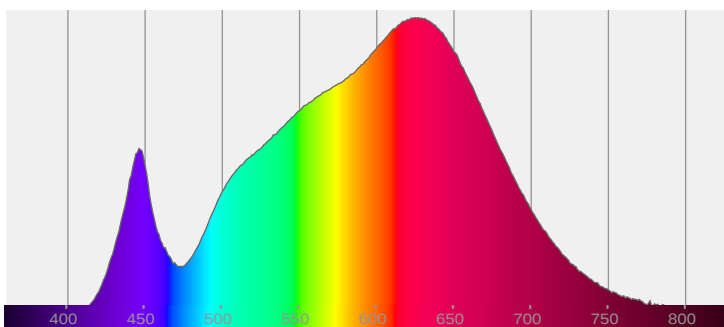
Core 4" Square Flat C20 30K 55°

Date and time:

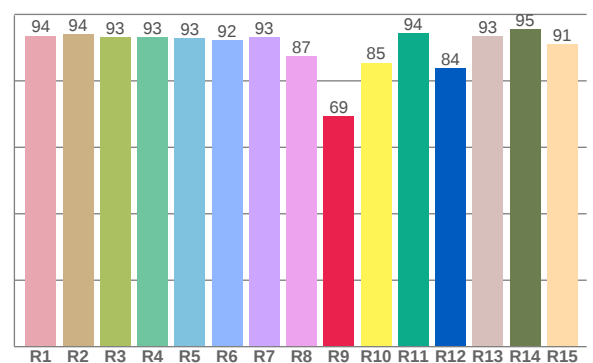
3/31/2017 2:29:38 PM

LUM: 881

Spectra



CRI: 92.4 (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
	92.4	69.2	90.3	103.1	90.2	0.428	0.399	0.247	0.345	-0.0007

R_f 90.3

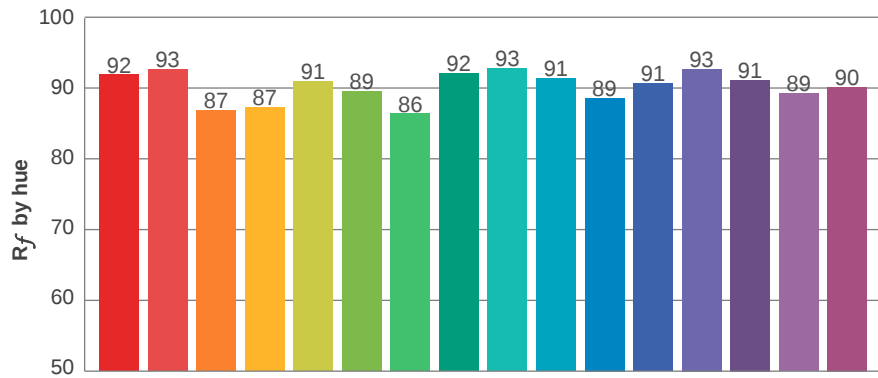
Fidelity index R_f

R_g 103.1

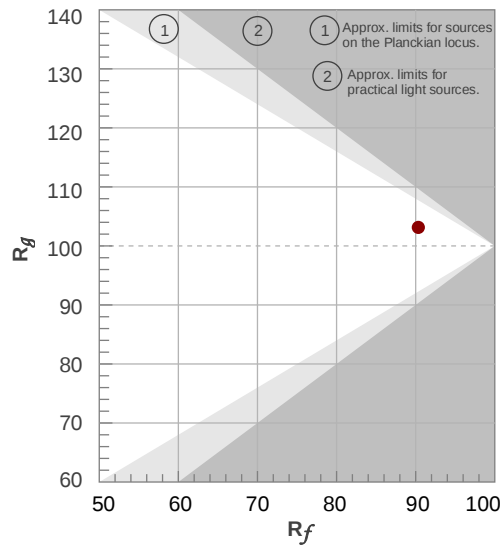
Gammut index R_g

TM30: 90.3

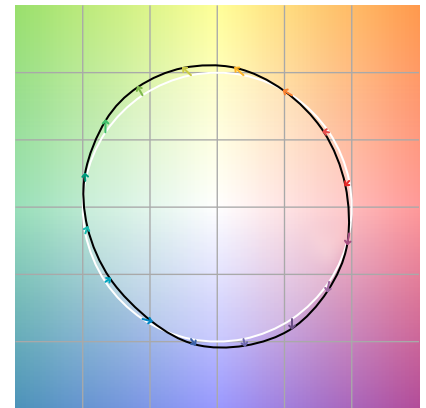
TM-30Color



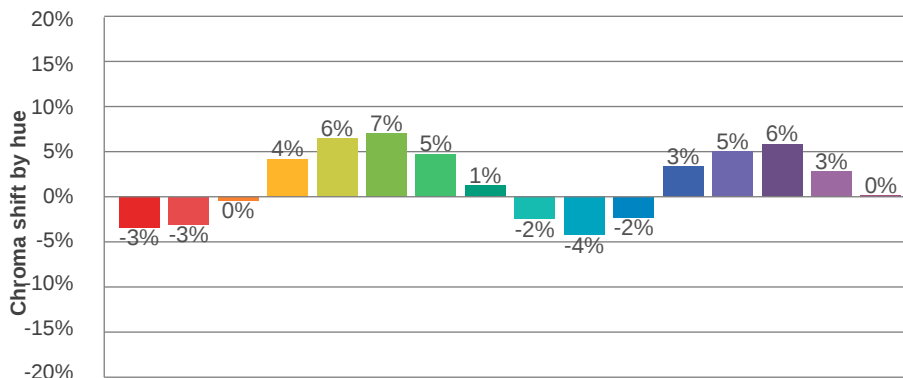
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	92	-3%	-3%
2	93	-3%	3%
3	87	0%	7%
4	87	4%	7%
5	91	6%	5%
6	89	7%	-1%
7	86	5%	-7%
8	92	1%	-5%
9	93	-2%	-4%
10	91	-4%	0%
11	89	-2%	7%
12	91	3%	4%
13	93	5%	0%
14	91	6%	-4%
15	89	3%	-6%
16	90	0%	-8%



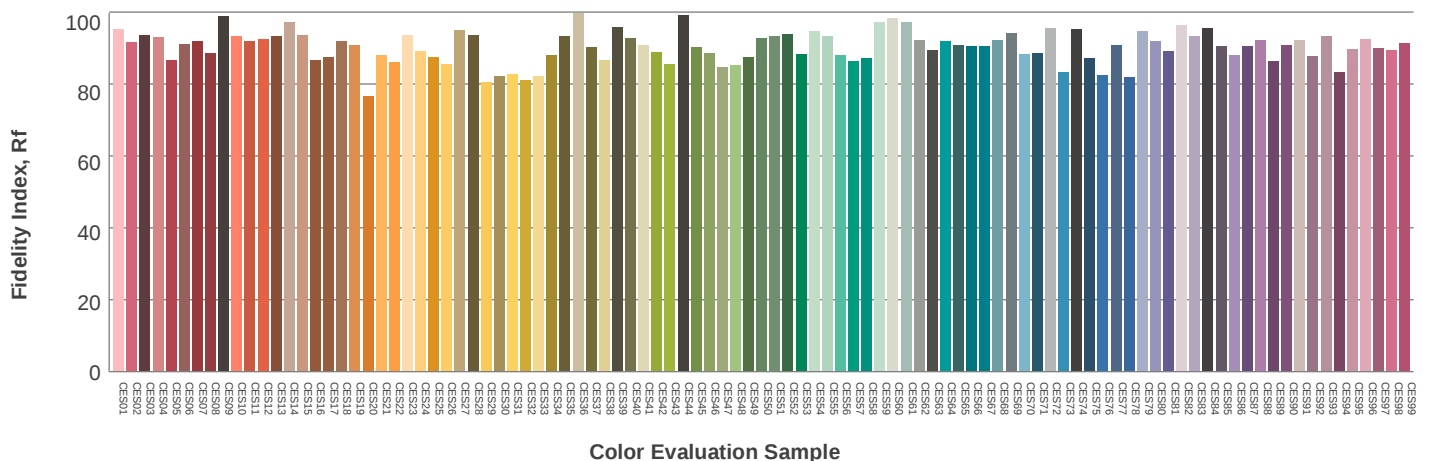
Color vector graphics



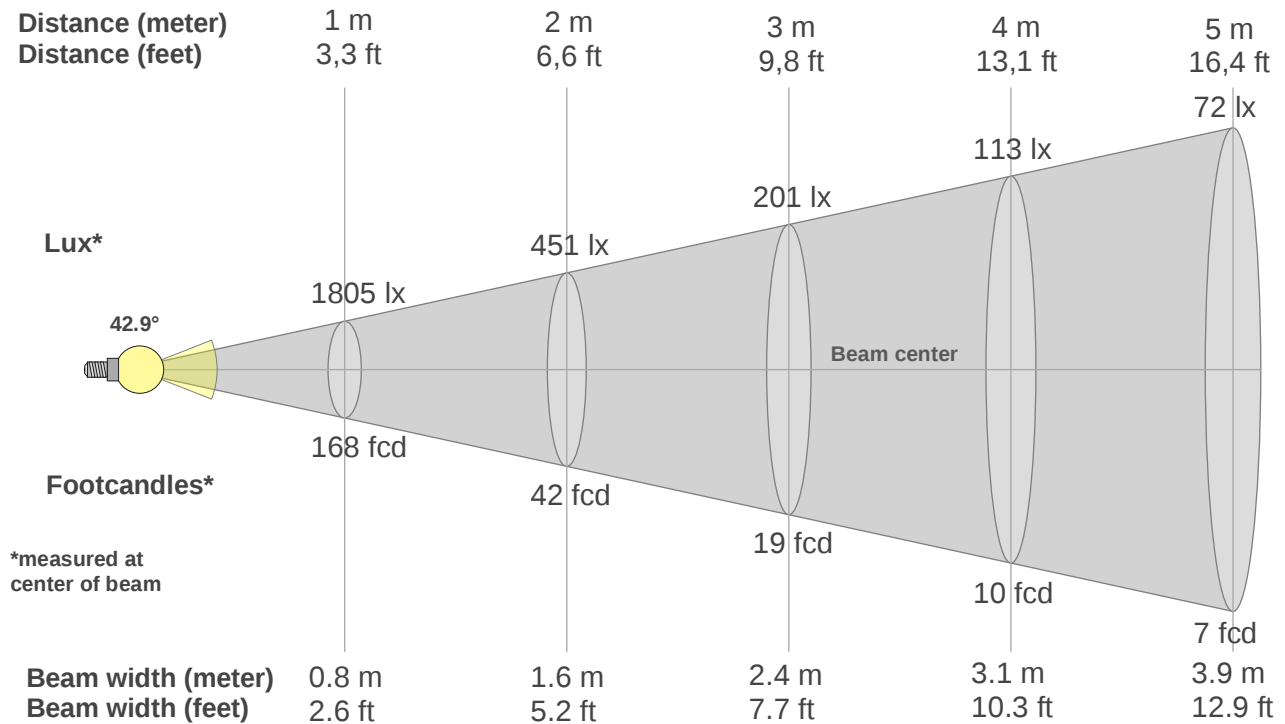
Color distortion



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
1805lx	451lx	201lx	113lx	72lx	50lx	37lx	28lx	22lx	18lx	15lx	13lx	11lx	9lx	8lx	7lx	6lx	6lx	5lx	5lx
167.7fcd	41.9fcd	18.6fcd	10.5fcd	6.7fcd	4.7fcd	3.4fcd	2.6fcd	2.1fcd	1.7fcd	1.4fcd	1.2fcd	1fcd	0.9fcd	0.7fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	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°
1805	1799	1789	1769	1734	1675	1587	1478	1353	1123	837	576	429	334	263	196	135	89	50	27
100%	100%	99%	98%	96%	93%	88%	82%	75%	62%	46%	32%	24%	19%	15%	11%	7%	5%	3%	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°
1805	1803	1794	1775	1742	1684	1594	1487	1352	1142	837	572	432	335	263	198	137	87	51	26
100%	100%	99%	98%	97%	93%	88%	82%	75%	63%	46%	32%	24%	19%	15%	11%	8%	5%	3%	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°
1805	1799	1789	1769	1734	1675	1587	1478	1353	1123	837	576	429	334	263	196	135	89	50	27
100%	100%	99%	98%	96%	93%	88%	82%	75%	62%	46%	32%	24%	19%	15%	11%	7%	5%	3%	1%

Intensities in 270° c-plane

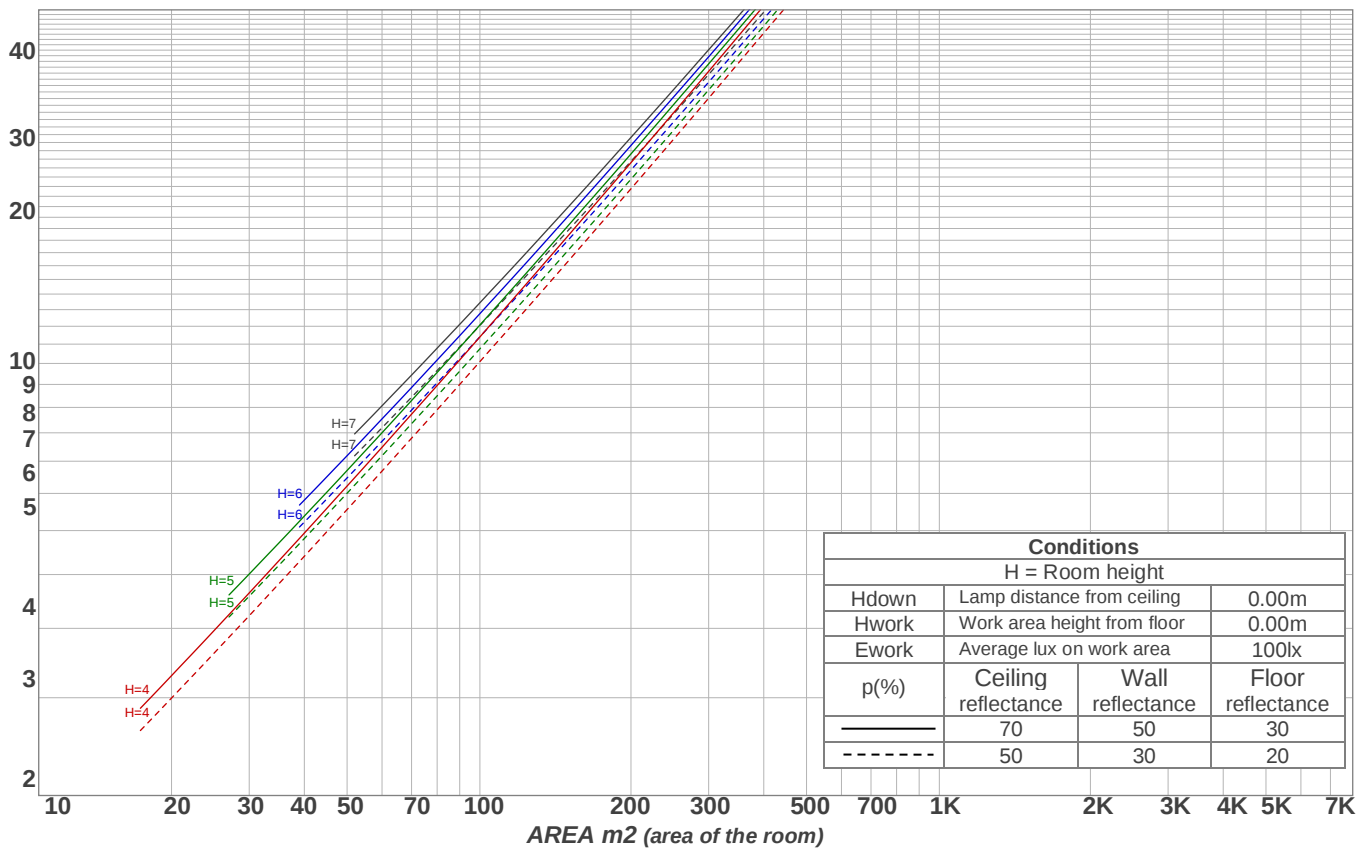
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1805	1803	1794	1775	1742	1684	1594	1487	1352	1142	837	572	432	335	263	198	137	87	51	26
100%	100%	99%	98%	97%	93%	88%	82%	75%	63%	46%	32%	24%	19%	15%	11%	8%	5%	3%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
42.9°	61.5°	74°	98.6%	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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	105	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90
3	105	100	96	92	103	99	95	92	96	93	90	94	91	89	92	89	87	86
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82
5	97	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	78
6	94	87	82	78	93	86	81	78	84	80	77	83	80	77	82	79	76	75
7	90	83	78	74	89	82	78	74	81	77	74	80	76	73	79	76	73	72
8	87	79	74	71	86	79	74	71	78	74	71	77	73	70	76	73	70	69
9	84	76	71	68	83	76	71	68	75	71	68	74	70	68	73	70	67	66
10	81	73	69	65	80	73	68	65	72	68	65	71	68	65	71	67	65	64

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
168 lm	395 lm	244 lm	52.4 lm	6.03 lm	3.80 lm	5.03 lm	3.80 lm	2.76 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	22.8	23.3	22.9	23.5	23.7	23.0	23.5	23.1	23.7	23.9
	3H	23.0	23.7	23.4	23.9	24.1	23.5	24.2	23.9	24.3	24.5
	4H	23.3	23.9	23.7	24.2	24.4	23.9	24.6	24.3	24.8	25.0
	6H	23.9	24.4	24.2	24.7	25.0	24.6	25.1	24.9	25.4	25.7
	8H	24.2	24.7	24.5	25.0	25.4	24.9	25.4	25.2	25.7	26.1
	12H	24.7	25.2	25.1	25.6	26.0	25.5	25.9	25.8	26.3	26.7
4H	2H	22.7	23.3	23.1	23.5	23.8	22.9	23.5	23.3	23.7	24.0
	3H	23.4	23.9	23.7	24.2	24.6	23.8	24.3	24.2	24.7	25.1
	4H	23.8	24.2	24.2	24.7	25.2	24.4	24.8	24.8	25.3	25.8
	6H	24.5	25.0	25.0	25.3	25.7	25.2	25.7	25.7	26.1	26.4
	8H	25.0	25.5	25.5	25.8	26.2	25.7	26.2	26.2	26.5	26.9
	12H	25.7	26.1	26.2	26.5	27.0	26.5	26.8	27.0	27.2	27.7
8H	4H	24.1	24.5	24.6	24.9	25.2	24.6	25.1	25.1	25.4	25.8
	6H	25.1	25.4	25.6	25.9	26.4	25.7	26.0	26.3	26.5	27.0
	8H	25.9	26.1	26.4	26.7	27.3	26.5	26.7	27.0	27.3	27.9
	12H	26.9	27.1	27.5	27.6	28.2	27.5	27.7	28.1	28.2	28.8
12H	4H	24.1	24.5	24.6	24.9	25.4	24.7	25.0	25.2	25.4	25.9
	6H	25.4	25.6	25.9	26.1	26.7	25.9	26.2	26.5	26.7	27.3
	8H	26.2	26.4	26.8	26.9	27.5	26.7	26.9	27.3	27.5	28.0
Corrected glare indices referring to 881 lm total luminous flux											