

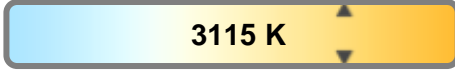
Light efficiency:



Light quality:



Color temperature:

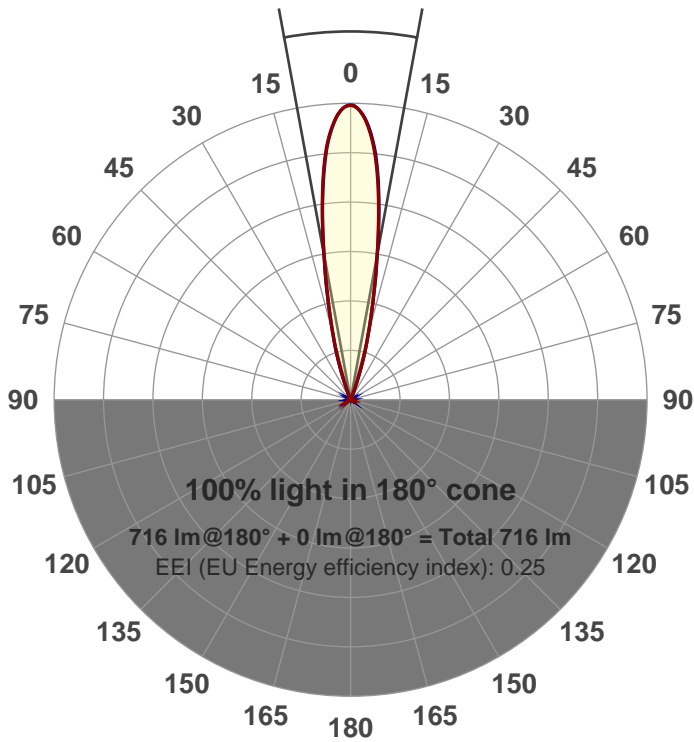


Output: 716 lm
Peak: 4887 cd
Power: 14.7 W
PF: 0.97



Beam angle

20.8°



Product name:
GRF-CZ14-NF-RD
Item number:
GRF-CZ14-NF-RD
Date and time:
6/6/2017 10:48:20 AM
Description:

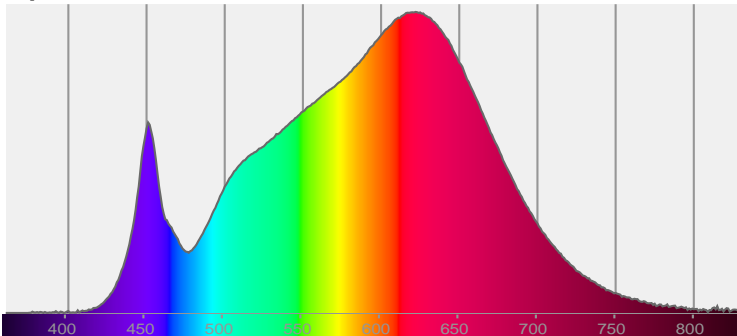
LUM: 716

PPF: 11.3

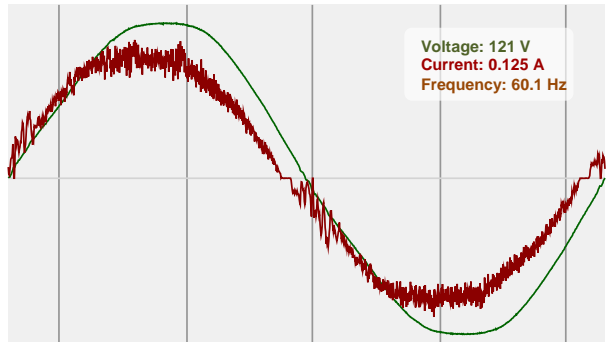


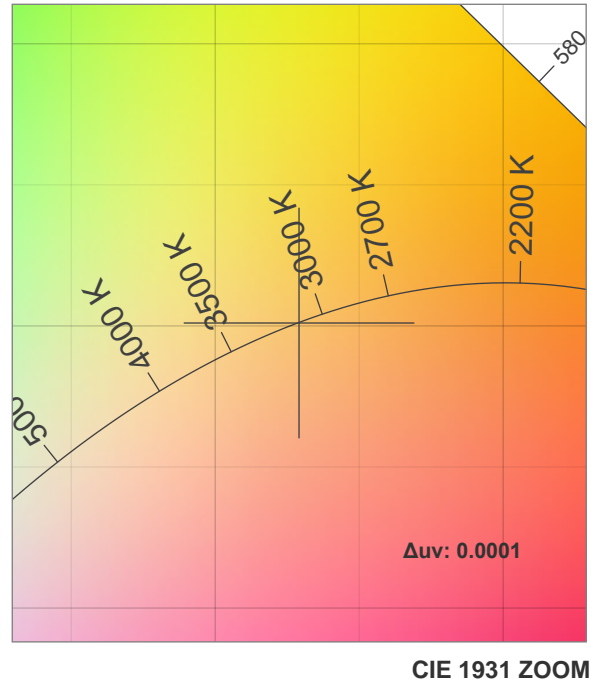
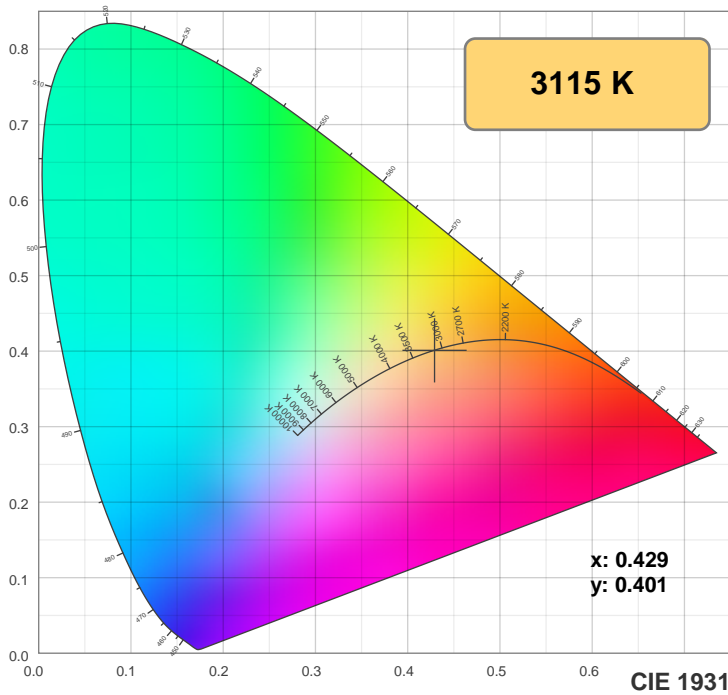
CIE 1931
x: 0.429
y: 0.401

Spectra

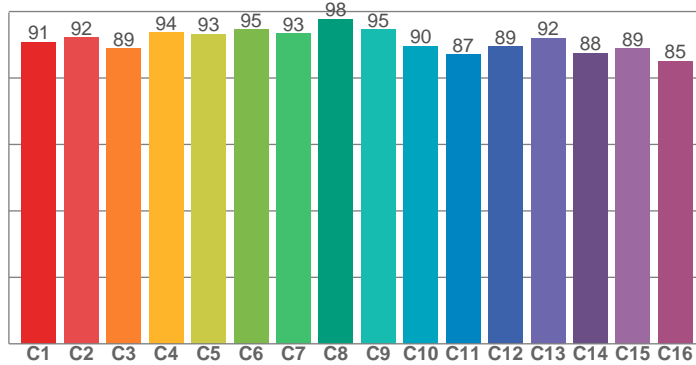


Power

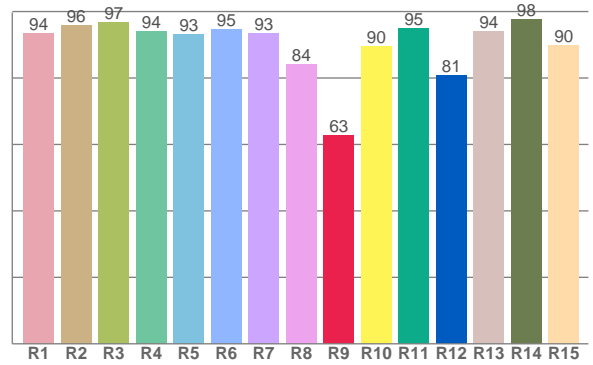




TM30: 91.2



CRI: 93.2 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93.6	95.8	96.8	94.2	93.2	94.6	93.4	84.2	62.7	89.5	95.0	80.9	94.1	97.6	89.8

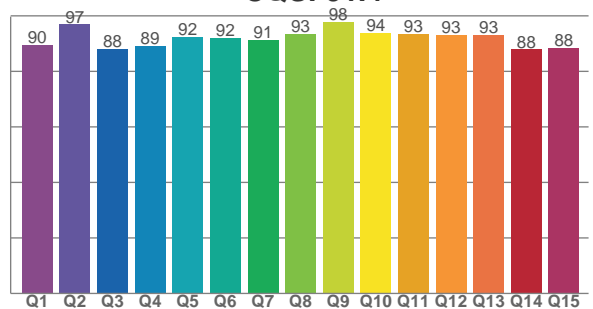
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.8	92.1	88.8	93.7	93.3	94.7	93.4	97.7	94.6	89.7	87.0	89.4	92.1	87.5	88.9	85.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89.6	96.9	88.2	89.2	92.3	92.1	91.5	93.4	97.8	93.8	93.4	93.2	93.1	87.9	88.3

CQS: 91.4



Color parameters

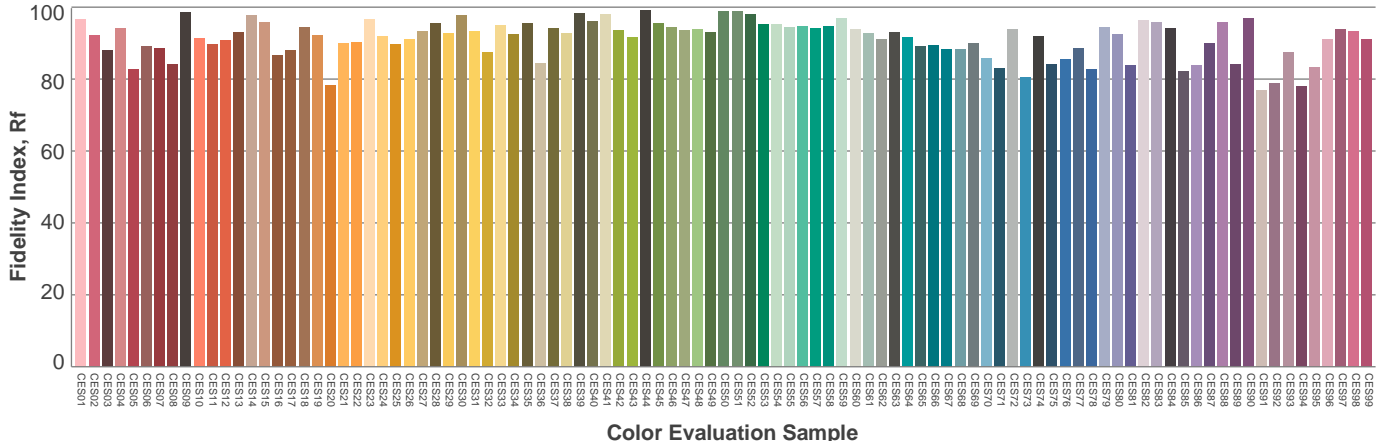
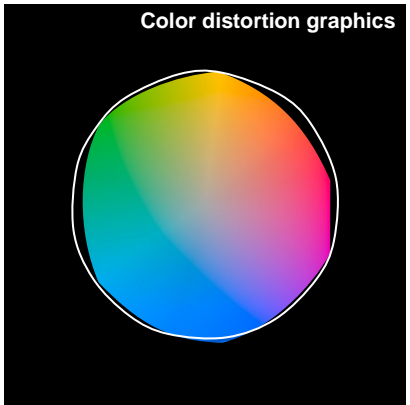
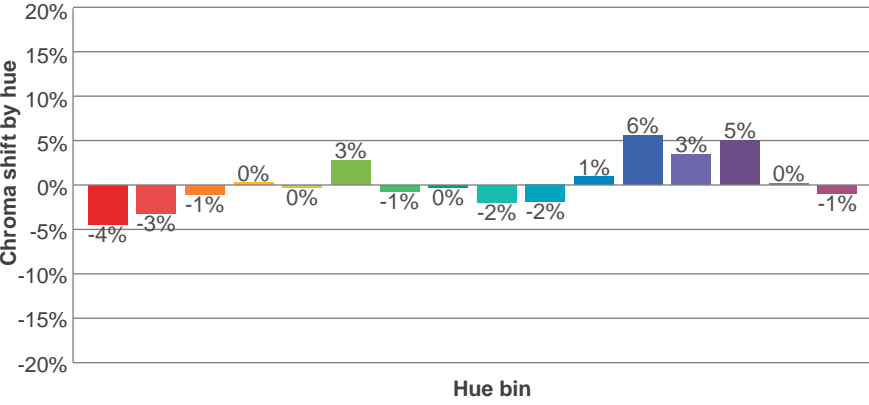
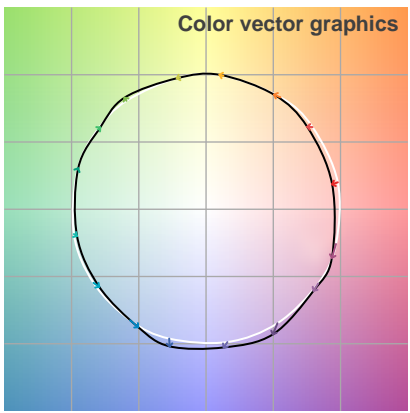
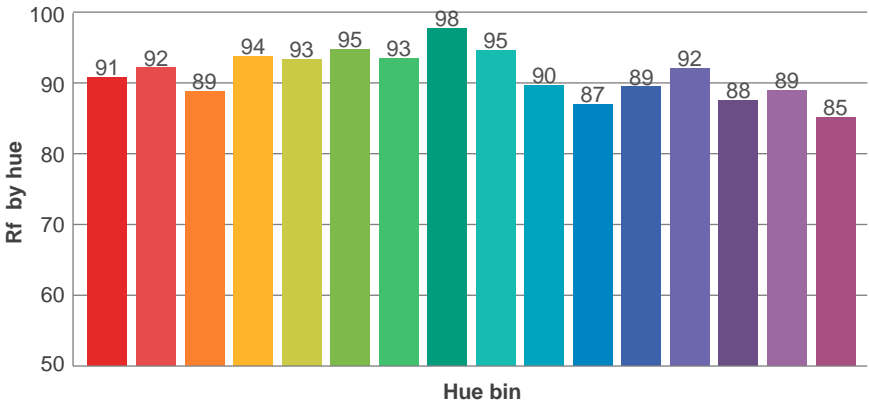
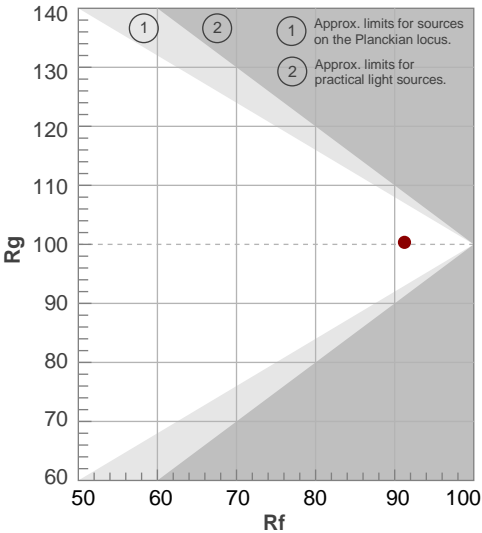
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3115 K	93.2	62.7	91.2	100.3	91.4	0.429	0.401	0.247	0.346	0.0001

TM30 details

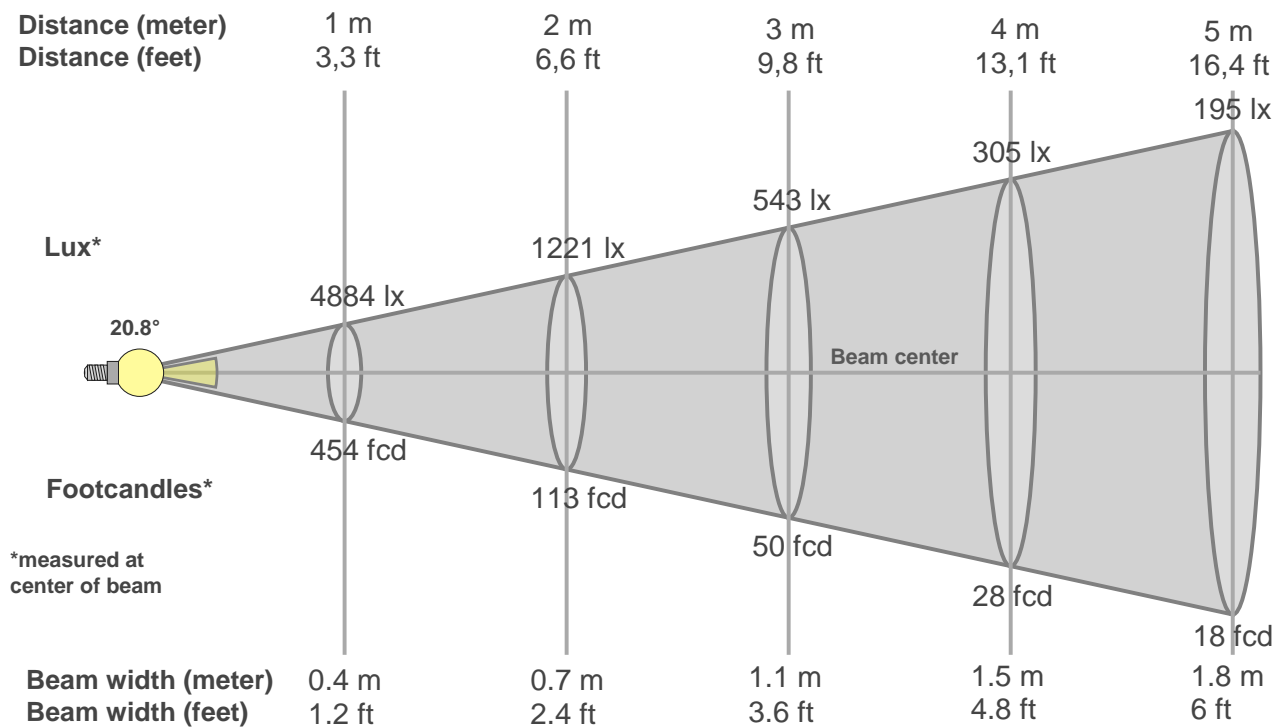
Rf 91.2
Fidelity index Rf

Rg 100.3
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	91	-4%	-1%
2	92	-3%	2%
3	89	-1%	5%
4	94	0%	3%
5	93	0%	3%
6	95	3%	0%
7	93	-1%	-3%
8	98	0%	-1%
9	95	-2%	2%
10	90	-2%	5%
11	87	1%	8%
12	89	6%	1%
13	92	3%	-3%
14	88	5%	-7%
15	89	0%	-6%
16	85	-1%	-11%



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
453.8fcd	113.4fcd	50.4fcd	28.4fcd	18.2fcd	12.6fcd	9.3fcd	7.1fcd	5.6fcd	4.5fcd	3.8fcd	3.2fcd	2.7fcd	2.3fcd	2fcd	1.8fcd	1.6fcd	1.4fcd	1.3fcd	1.1fcd

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	4862	4795	4675	4515	4311	4049	3725	3361	2982	2590	2230	1912	1623	1358	1127	938	746	554	382
100%	100%	98%	96%	92%	88%	83%	76%	69%	61%	53%	46%	39%	33%	28%	23%	19%	15%	11%	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	4864	4793	4673	4499	4286	4010	3687	3337	2966	2592	2238	1930	1634	1368	1146	955	768	582	410
100%	100%	98%	96%	92%	88%	82%	75%	68%	61%	53%	46%	40%	33%	28%	23%	20%	16%	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	4854	4776	4652	4475	4260	3995	3682	3326	2953	2587	2230	1909	1628	1369	1139	947	761	575	399
100%	99%	98%	95%	92%	87%	82%	75%	68%	60%	53%	46%	39%	33%	28%	23%	19%	16%	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	4779	4661	4496	4289	4038	3723	3368	2984	2602	2242	1916	1623	1359	1127	932	735	547	380
100%	100%	98%	95%	92%	88%	83%	76%	69%	61%	53%	46%	39%	33%	28%	23%	19%	15%	11%	8%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
20.8°	36.8°	42.2°	1.0%	1.0%

