

Light efficiency:



Light quality:



Color temperature:



Output: 1106 lm

Peak: 5006 cd

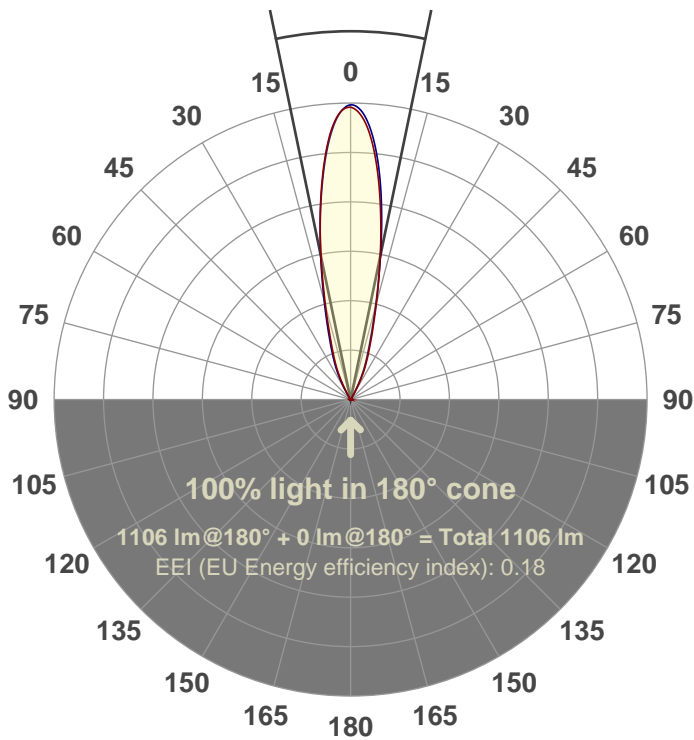
Power: 14.6 W

PF: 0.97



Beam angle

23.4°



Test number:

GR-CZ14-NF-RD

Luminaire Model:

GR-CZ14-NF-RD

Date and time:

7/5/2017 11:25:22 AM

Description:

14 WATT

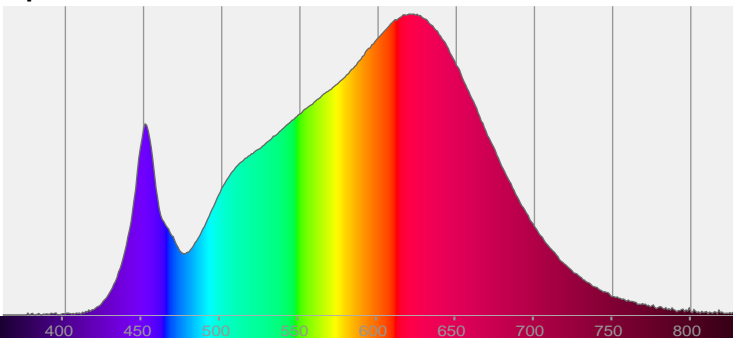
LUM: 1106

PPF: 18.8

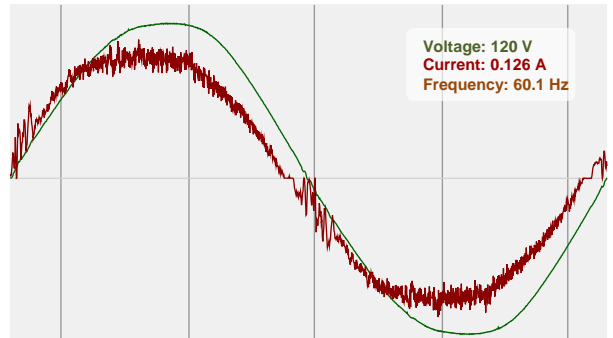


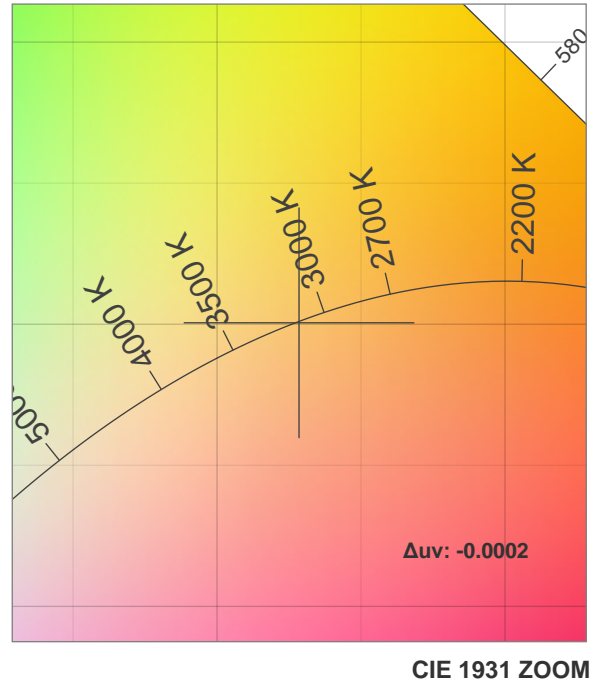
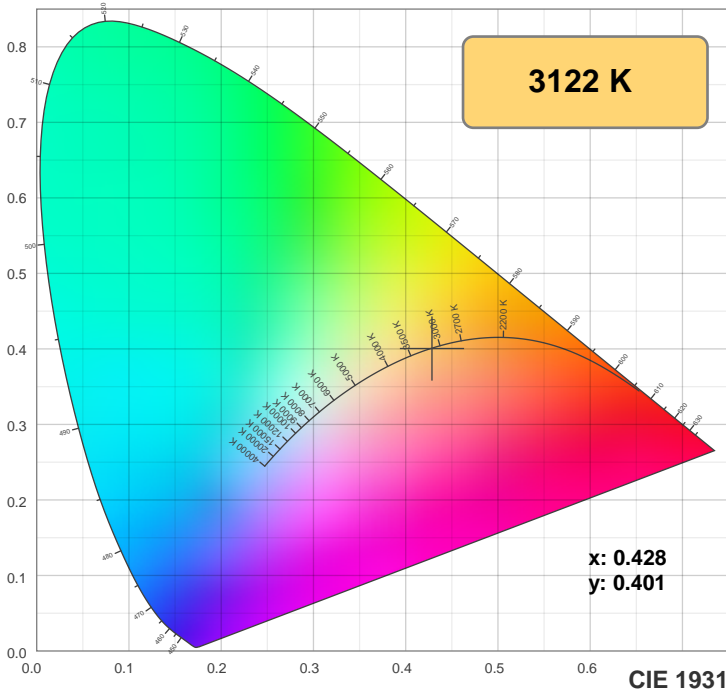
CIE 1931  
x: 0.428  
y: 0.401

Spectra

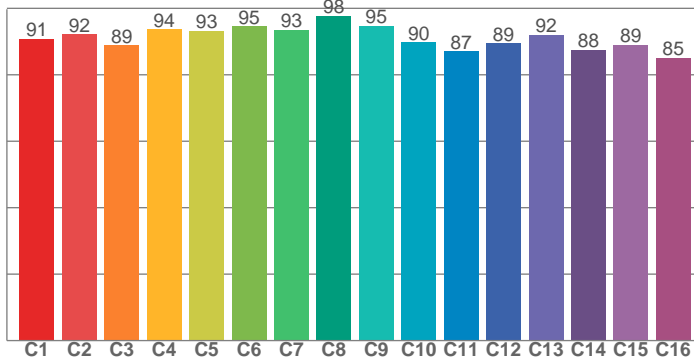


Power

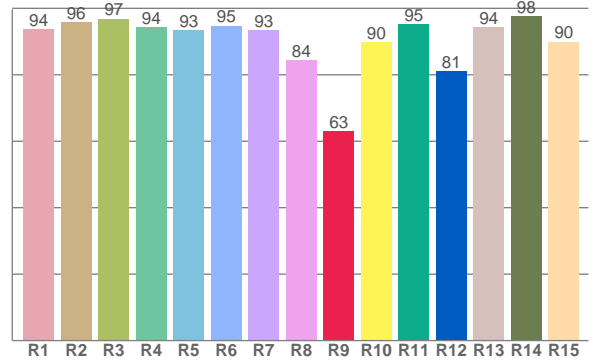




**TM30: 91.3**



**CRI: 93.3 (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
93.7	95.9	96.8	94.2	93.3	94.7	93.4	84.3	63.1	89.7	95.1	81.0	94.3	97.6	90.0

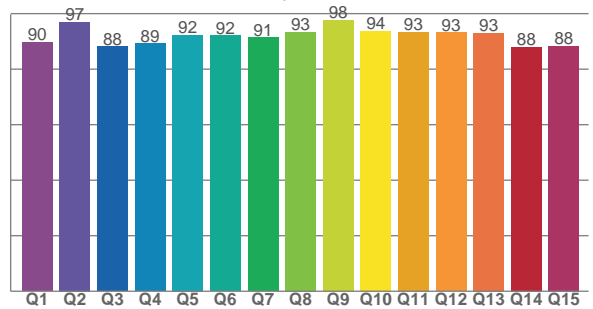
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.9	92.2	88.9	93.7	93.3	94.6	93.5	97.7	94.7	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
89.7	96.9	88.2	89.2	92.4	92.1	91.4	93.4	97.8	93.8	93.4	93.2	93.1	88.0	88.4

**CQS: 91.5**



## Color parameters

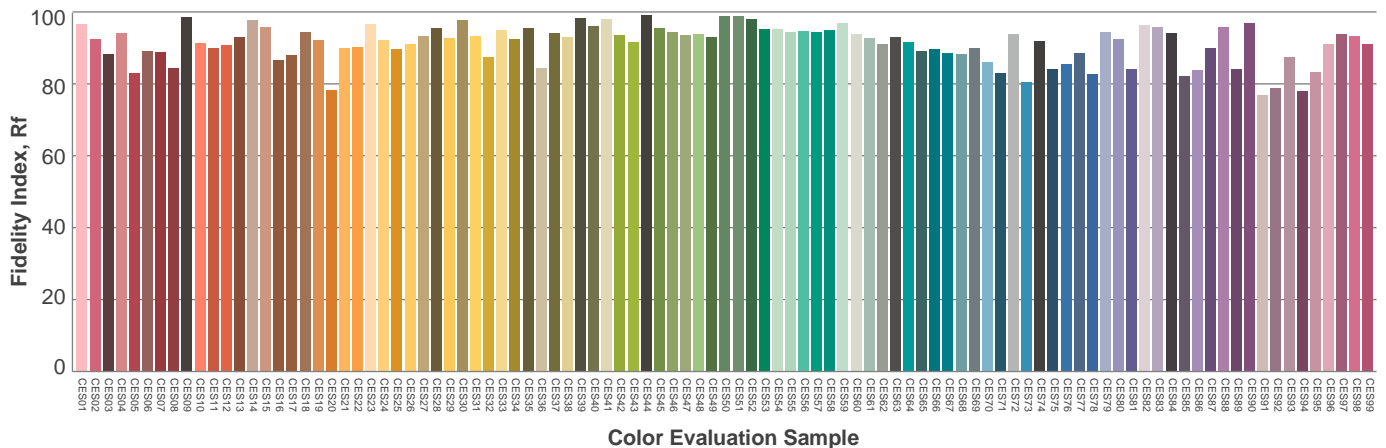
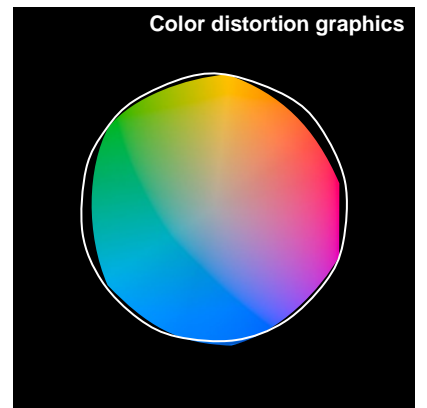
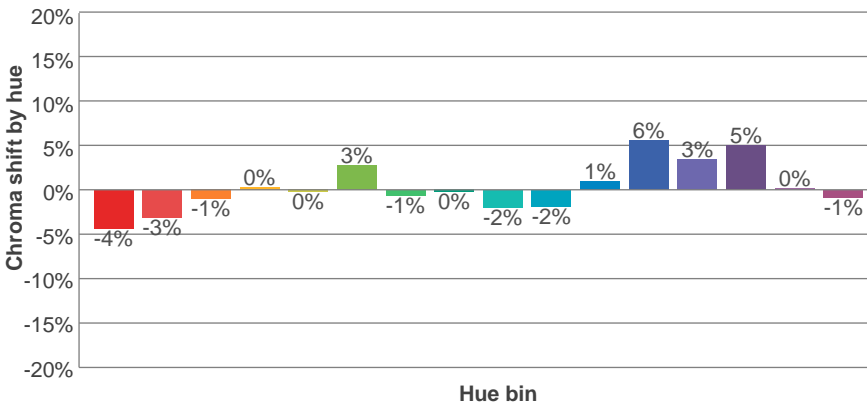
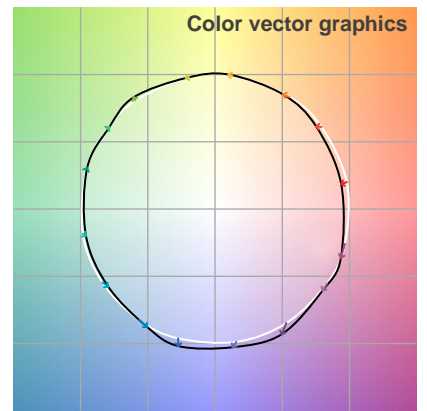
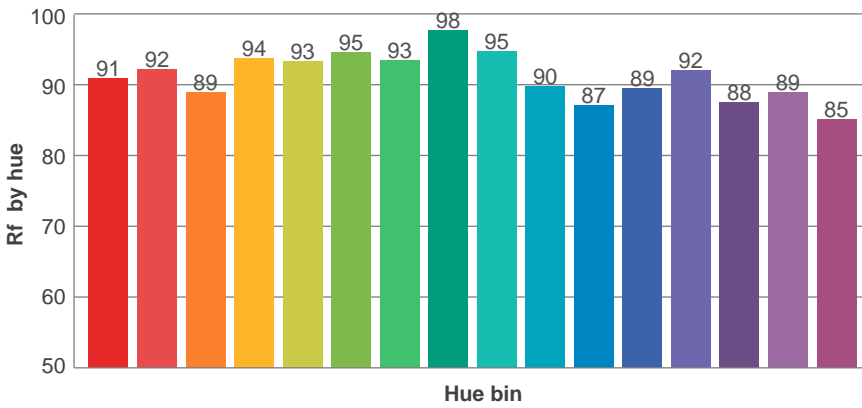
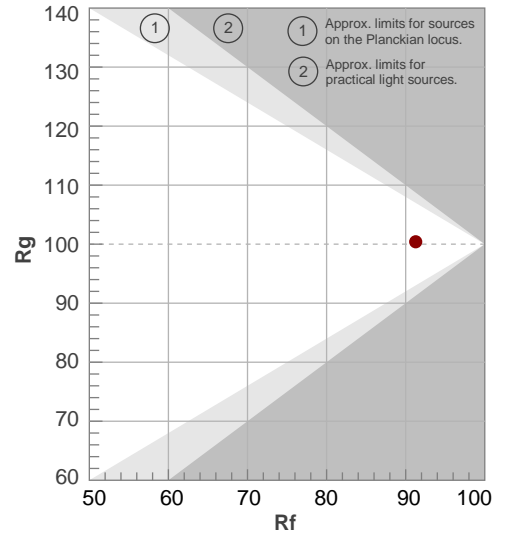
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3122 K	93.3	63.1	91.3	100.4	91.5	0.428	0.401	0.247	0.346	-0.0002

# TM30 details

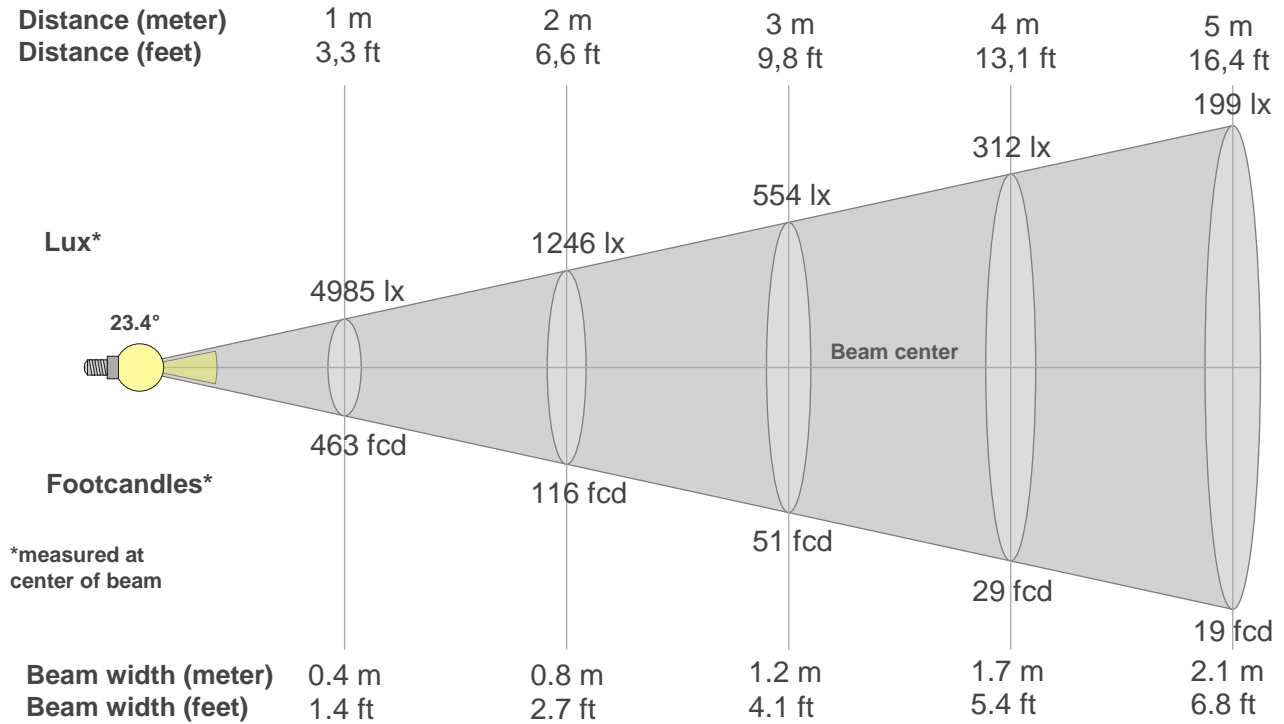
**Rf 91.3**  
Fidelity index Rf

**Rg 100.4**  
Gammut index Rg

Hue Bin	R <sub>f</sub>	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%	-2%
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
4985lx	1246lx	554lx	312lx	199lx	138lx	102lx	78lx	62lx	50lx	41lx	35lx	29lx	25lx	22lx	19lx	17lx	15lx	14lx	12lx
463.1fc	115.8fc	51.5fcd	28.9fcd	18.5fcd	12.9fcd	9.5fcd	7.2fcd	5.7fcd	4.6fcd	3.8fcd	3.2fcd	2.7fcd	2.4fcd	2.1fcd	1.8fcd	1.6fcd	1.4fcd	1.3fcd	1.2fcd

### 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°
4985	4890	4607	4143	3580	2980	2397	1866	1454	1132	903	723	566	392	226	98	43	35	29	25
100%	98%	92%	83%	72%	60%	48%	37%	29%	23%	18%	15%	11%	8%	5%	2%	1%	1%	1%	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°
4985	4887	4573	4107	3549	2974	2429	1942	1544	1231	992	809	649	493	320	166	62	36	30	25
100%	98%	92%	82%	71%	60%	49%	39%	31%	25%	20%	16%	13%	10%	6%	3%	1%	1%	1%	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°
4985	4842	4545	4092	3545	2962	2400	1908	1497	1185	946	762	603	438	266	123	47	35	29	24
100%	97%	91%	82%	71%	59%	48%	38%	30%	24%	19%	15%	12%	9%	5%	2%	1%	1%	1%	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°
4985	4919	4645	4209	3658	3039	2414	1867	1428	1108	869	689	528	350	188	73	40	33	27	23
100%	99%	93%	84%	73%	61%	48%	37%	29%	22%	17%	14%	11%	7%	4%	1%	1%	1%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23.4°	50.2°	59.6°	99.7%	98.9%



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