

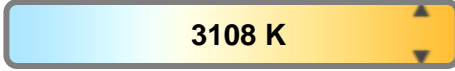
Light efficiency:



Light quality:



Color temperature:

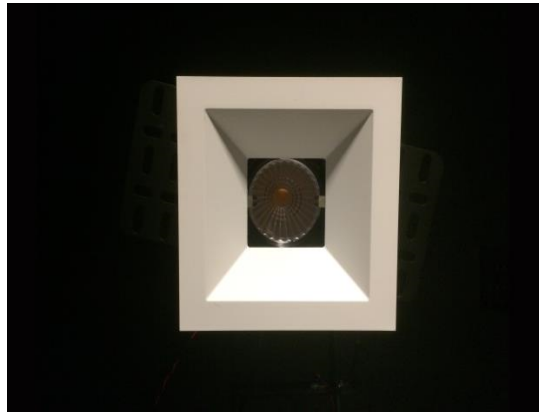


Output: 885 lm

Peak: 2382 cd

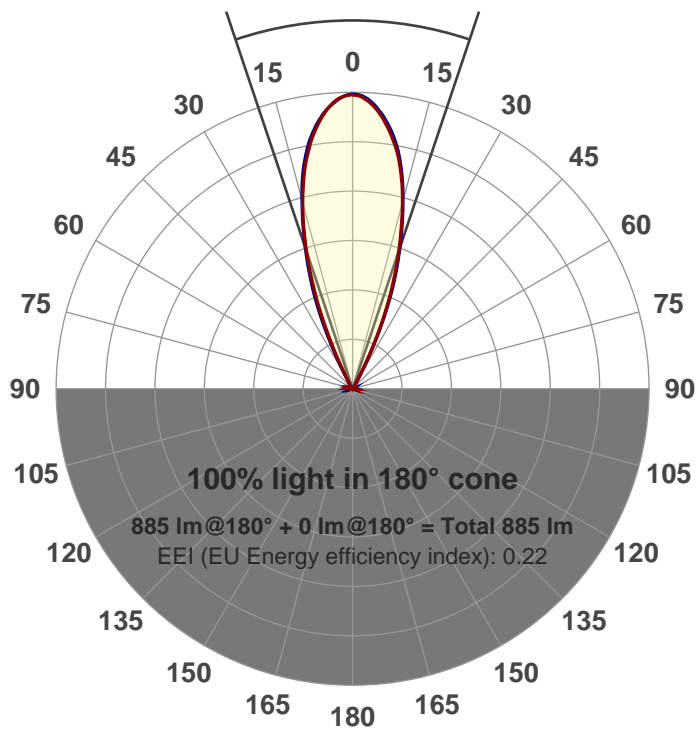
Power: 14.8 W

PF: 0.97



Beam angle

37.1°



Product name:  
**GR-CZ14-FL-SQ**

Item number:  
**GR-CZ14-FL-SQ**

Date and time:  
**5/12/2017 1:34:01 PM**

Description:

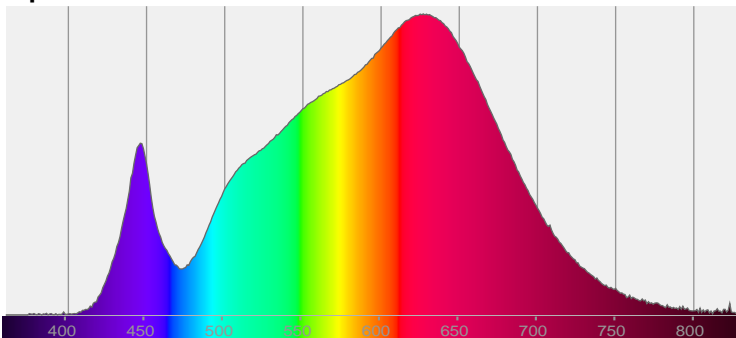
**LUM: 885**

**PPF: 15.8**

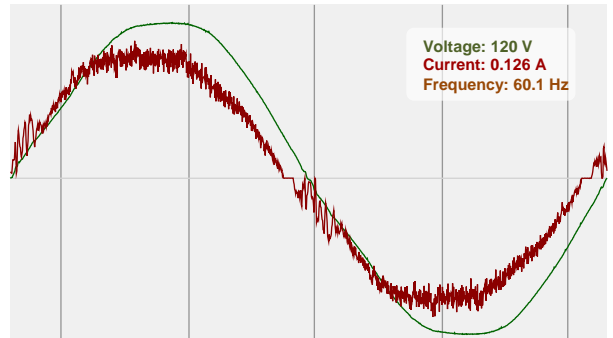


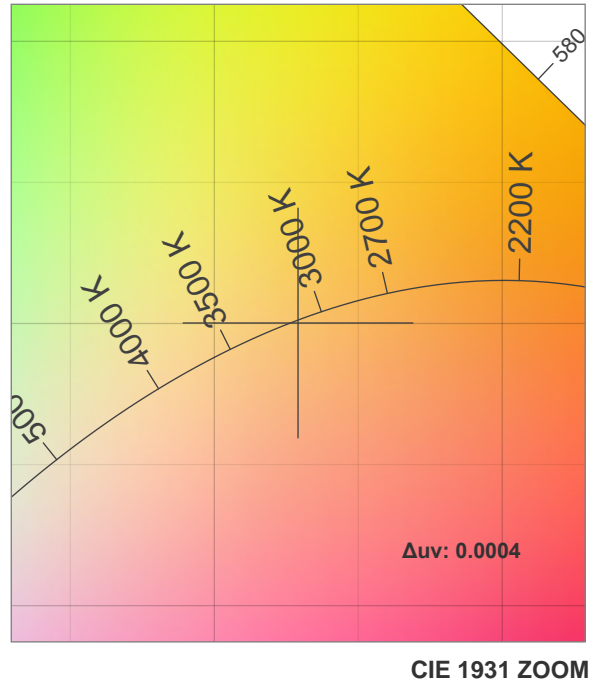
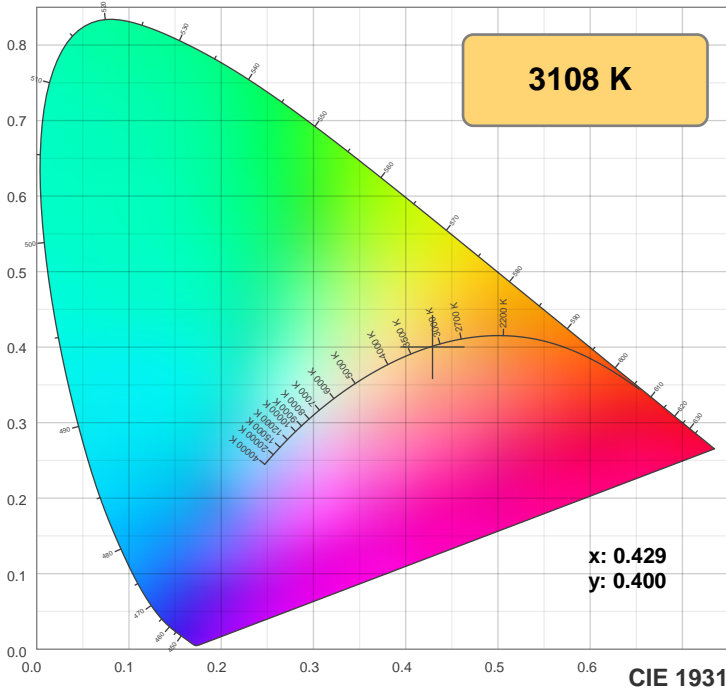
CIE 1931  
x: 0.429  
y: 0.400

Spectra



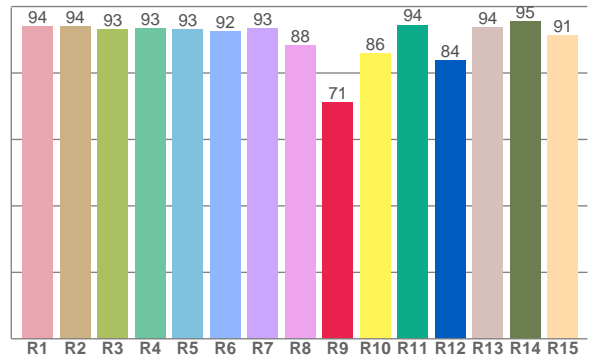
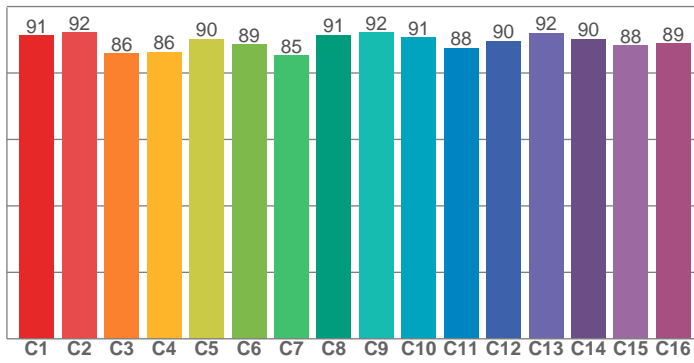
Power





**TM30: 89.5**

**CRI: 92.7 (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
93.9	94.1	93.0	93.4	93.1	92.4	93.5	88.2	71.1	85.8	94.5	83.9	93.6	95.4	91.4

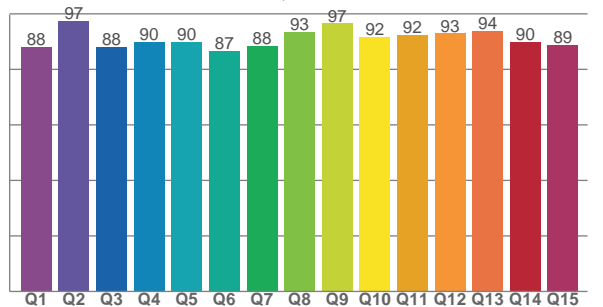
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.3	92.3	85.9	86.3	90.3	88.6	85.3	91.5	92.2	90.7	87.5	89.7	92.0	90.2	88.3	88.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.0	97.4	88.1	90.0	89.7	86.7	88.3	93.4	96.5	91.7	92.3	93.0	93.7	89.8	88.9

**CQS: 90.6**



## Color parameters

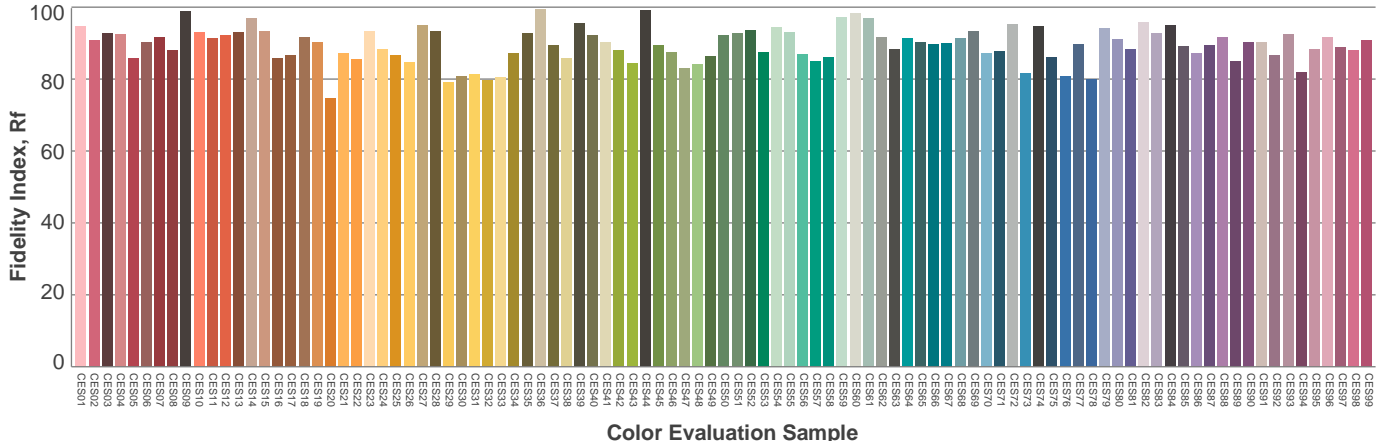
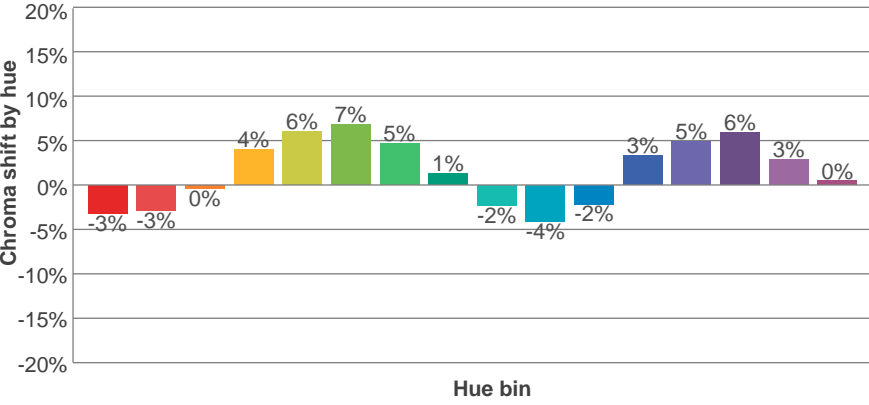
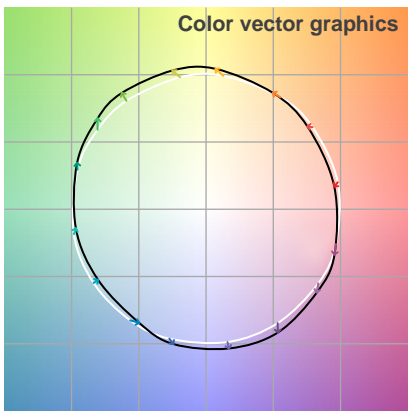
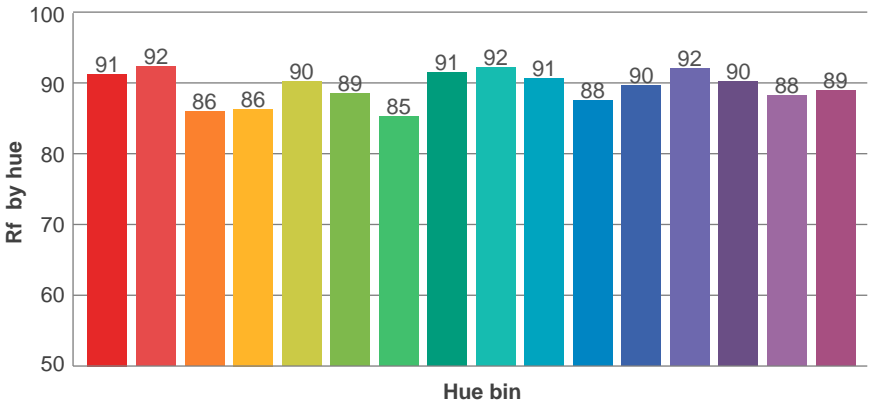
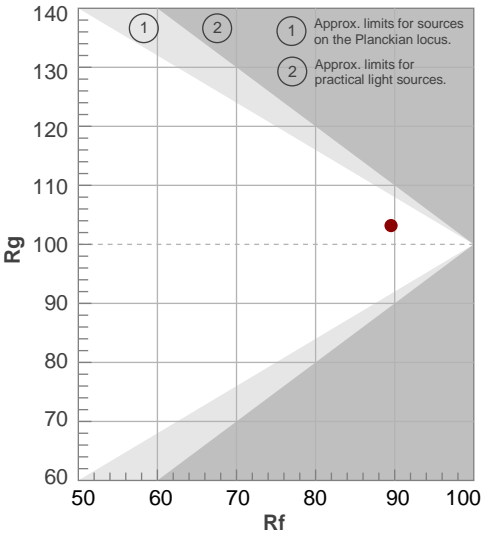
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3108 K	92.7	71.1	89.5	103.2	90.6	0.429	0.400	0.247	0.346	0.0004

# TM30 details

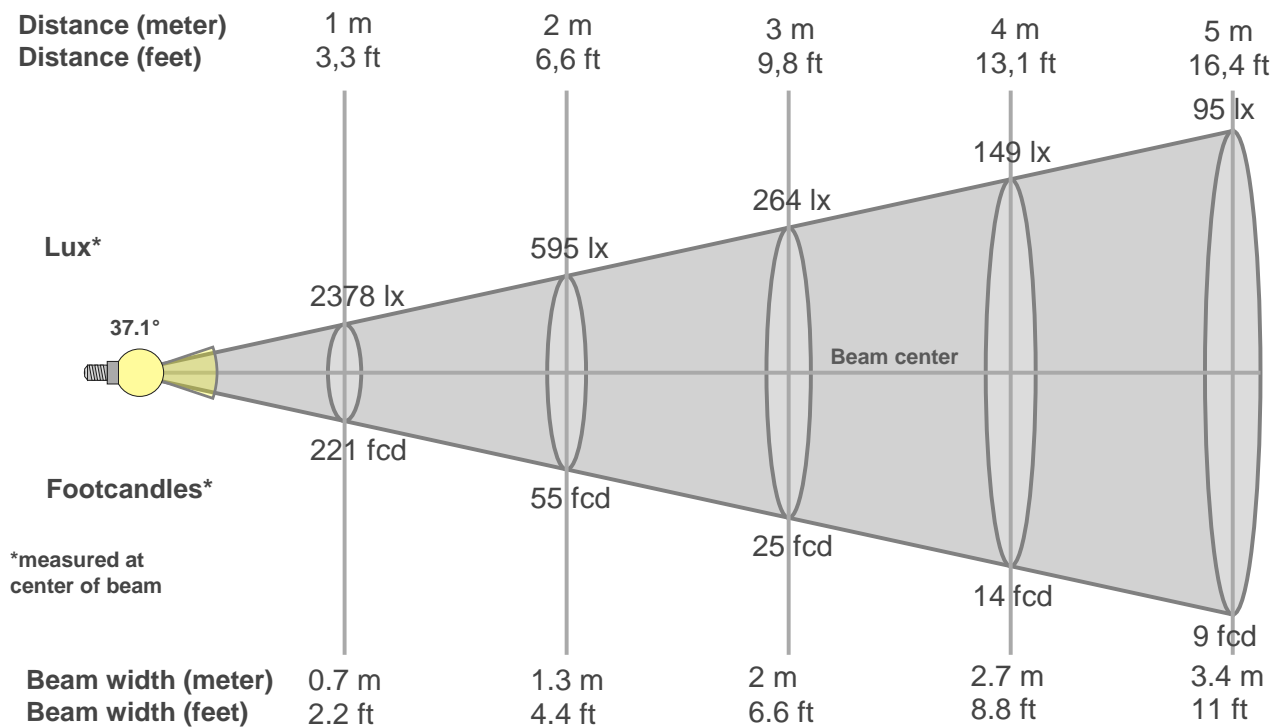
**Rf 89.5**  
Fidelity index Rf

**Rg 103.2**  
Gammut index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	91	-3%	-3%
2	92	-3%	3%
3	86	0%	7%
4	86	4%	7%
5	90	6%	5%
6	89	7%	0%
7	85	5%	-7%
8	91	1%	-5%
9	92	-2%	-4%
10	91	-4%	0%
11	88	-2%	6%
12	90	3%	4%
13	92	5%	0%
14	90	6%	-4%
15	88	3%	-6%
16	89	0%	-8%



## 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
2378lx	595lx	264lx	149lx	95lx	66lx	49lx	37lx	29lx	24lx	20lx	17lx	14lx	12lx	11lx	9lx	8lx	7lx	7lx	6lx
221fcd	55.2fcd	24.6fcd	13.8fcd	8.8fcd	6.1fcd	4.5fcd	3.5fcd	2.7fcd	2.2fcd	1.8fcd	1.5fcd	1.3fcd	1.1fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd

### 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°
2378	2361	2313	2230	2124	1994	1842	1657	1455	1236	1003	764	517	296	141	73	46	34	27	24
100%	99%	97%	94%	89%	84%	77%	70%	61%	52%	42%	32%	22%	12%	6%	3%	2%	1%	1%	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°
2378	2360	2308	2239	2144	2025	1873	1687	1472	1256	1050	841	612	382	191	76	44	34	28	23
100%	99%	97%	94%	90%	85%	79%	71%	62%	53%	44%	35%	26%	16%	8%	3%	2%	1%	1%	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°
2378	2355	2299	2217	2112	1990	1840	1660	1452	1235	1016	796	568	350	169	71	43	33	28	24
100%	99%	97%	93%	89%	84%	77%	70%	61%	52%	43%	33%	24%	15%	7%	3%	2%	1%	1%	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°
2378	2367	2315	2237	2137	2015	1860	1676	1468	1259	1048	833	594	363	173	71	44	33	27	23
100%	100%	97%	94%	90%	85%	78%	70%	62%	53%	44%	35%	25%	15%	7%	3%	2%	1%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37.1°	54.2°	61.3°	99.5%	98.4%



THIS PAGE INTENTIONALLY LEFT BLANK