

Light efficiency:



Light quality:



Color temperature:

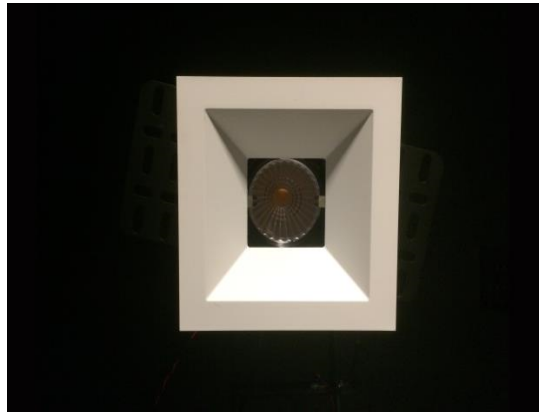


Output: 944 lm

Peak: 1351 cd

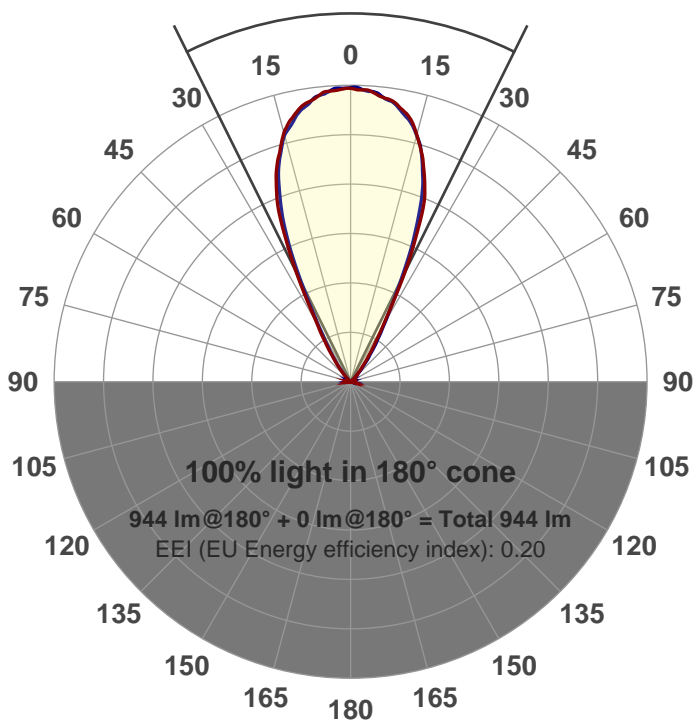
Power: 14.7 W

PF: 0.97



Beam angle

52.8°



Product name:

GR-CZ14-WF-SQ

Item number:

GR-CZ14-WF-SQ

Date and time:

3/31/2017 3:20:15 PM

Description:

LUM: 944

PPF: 15.2

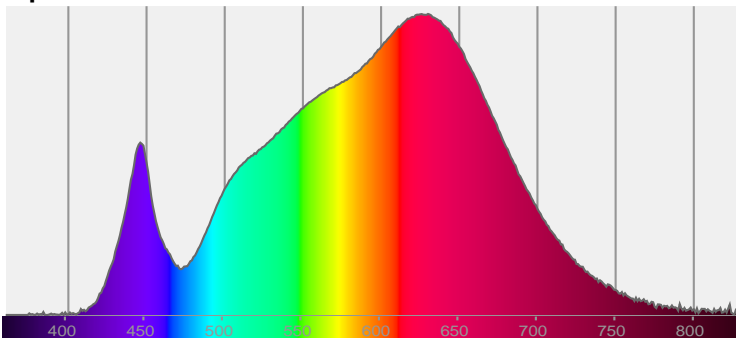


CIE 1931

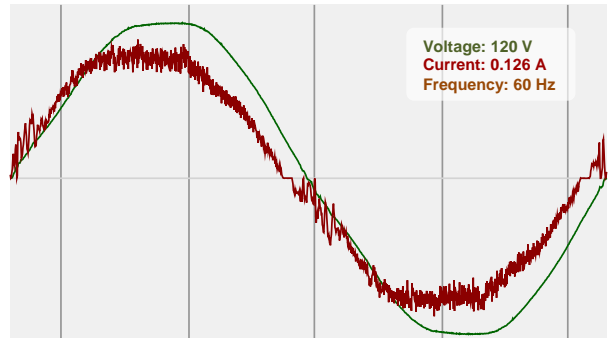
x: 0.429

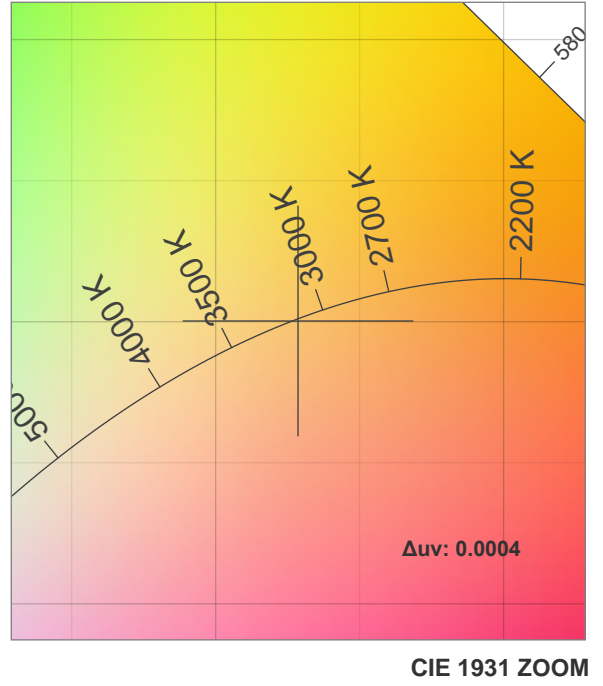
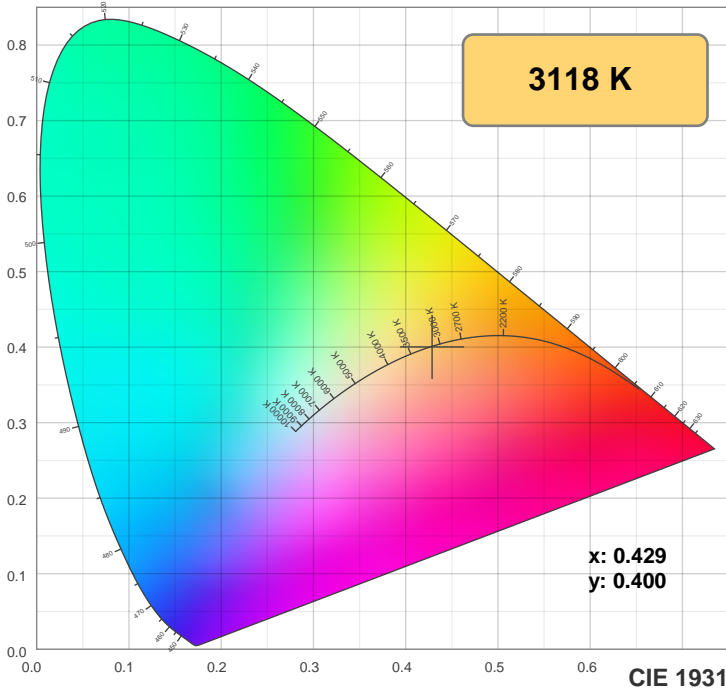
y: 0.400

Spectra



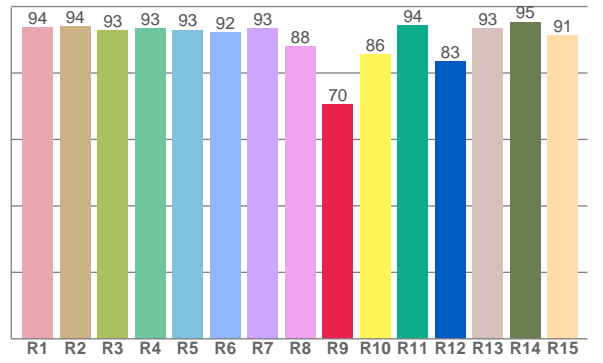
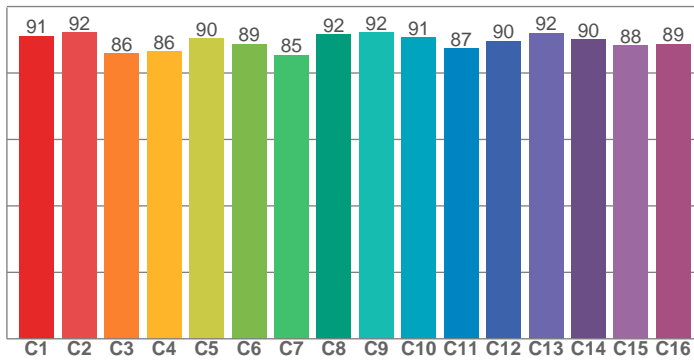
Power





**TM30: 89.5**

**CRI: 92.6 (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
93.8	94.0	93.0	93.4	93.0	92.2	93.5	88.0	70.4	85.5	94.4	83.5	93.4	95.4	91.2

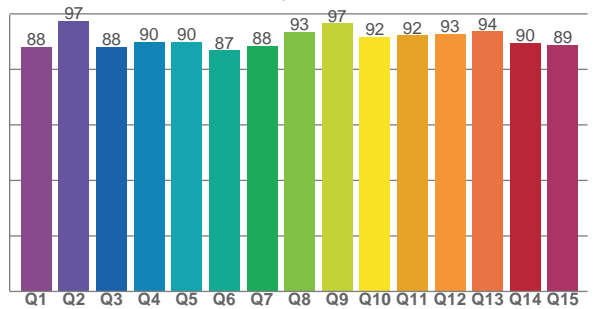
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.2	92.2	85.9	86.4	90.3	88.7	85.5	91.7	92.3	90.6	87.4	89.6	92.0	90.1	88.2	88.8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.0	97.4	88.0	89.9	89.8	86.8	88.4	93.4	96.5	91.7	92.2	92.9	93.7	89.6	88.8

**CQS: 90.5**



## Color parameters

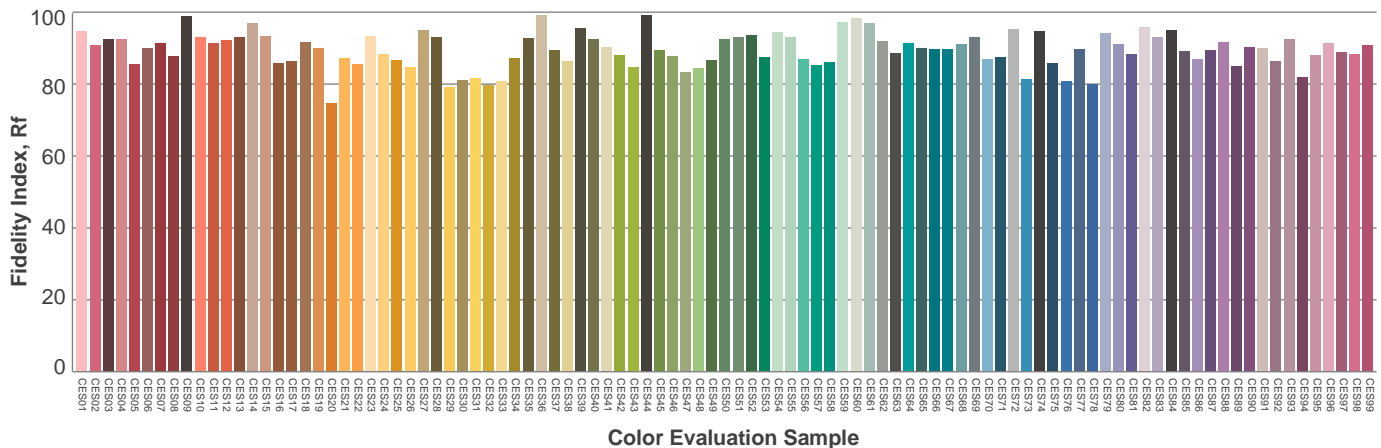
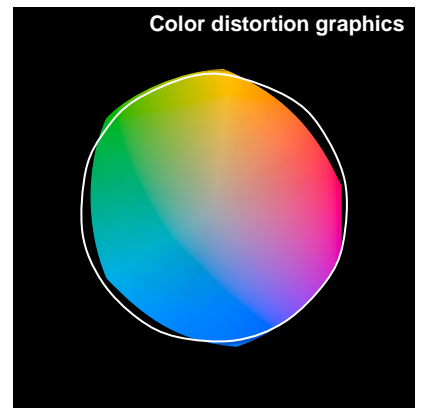
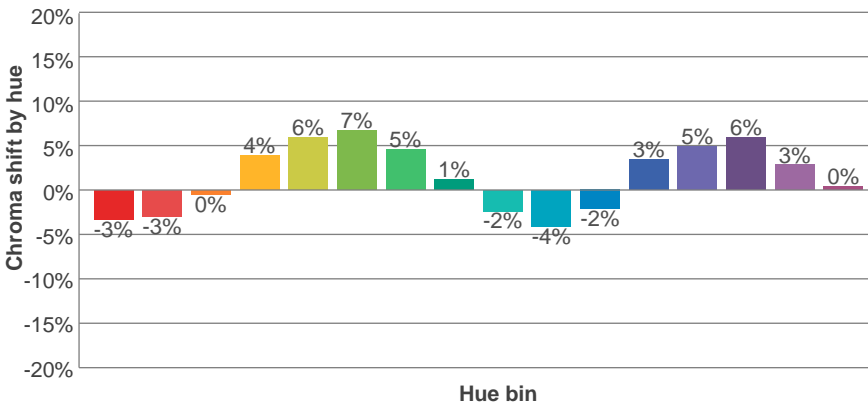
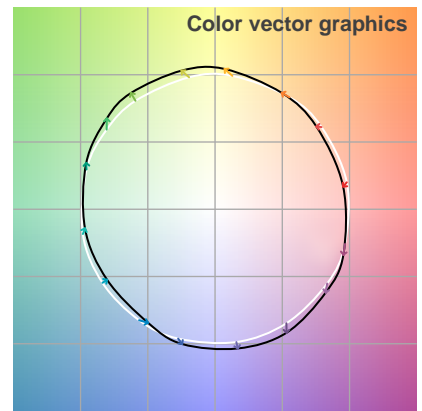
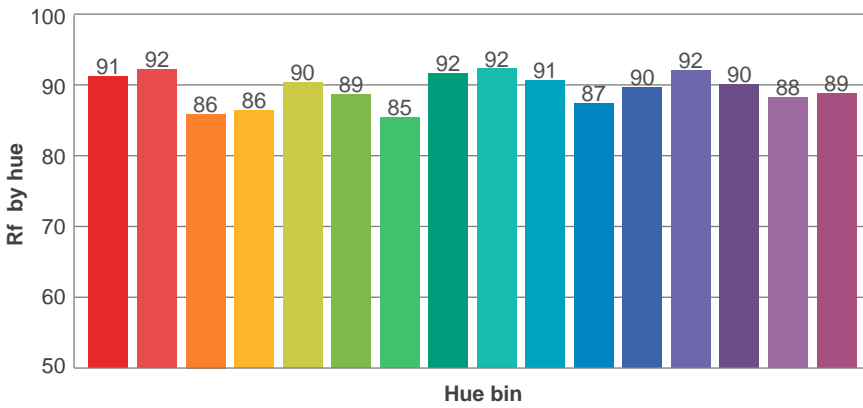
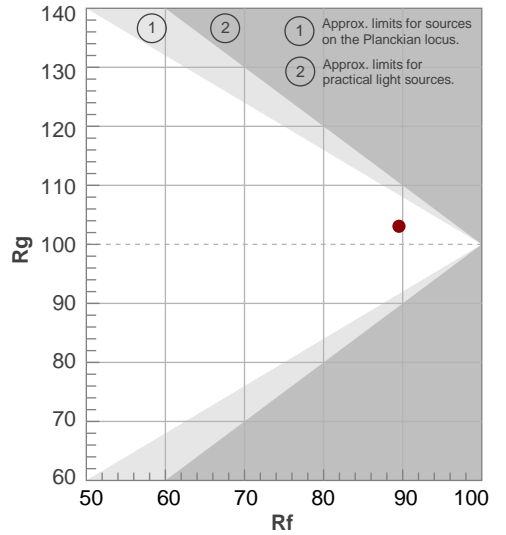
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3118 K	92.6	70.4	89.5	103.1	90.5	0.429	0.400	0.247	0.346	0.0004

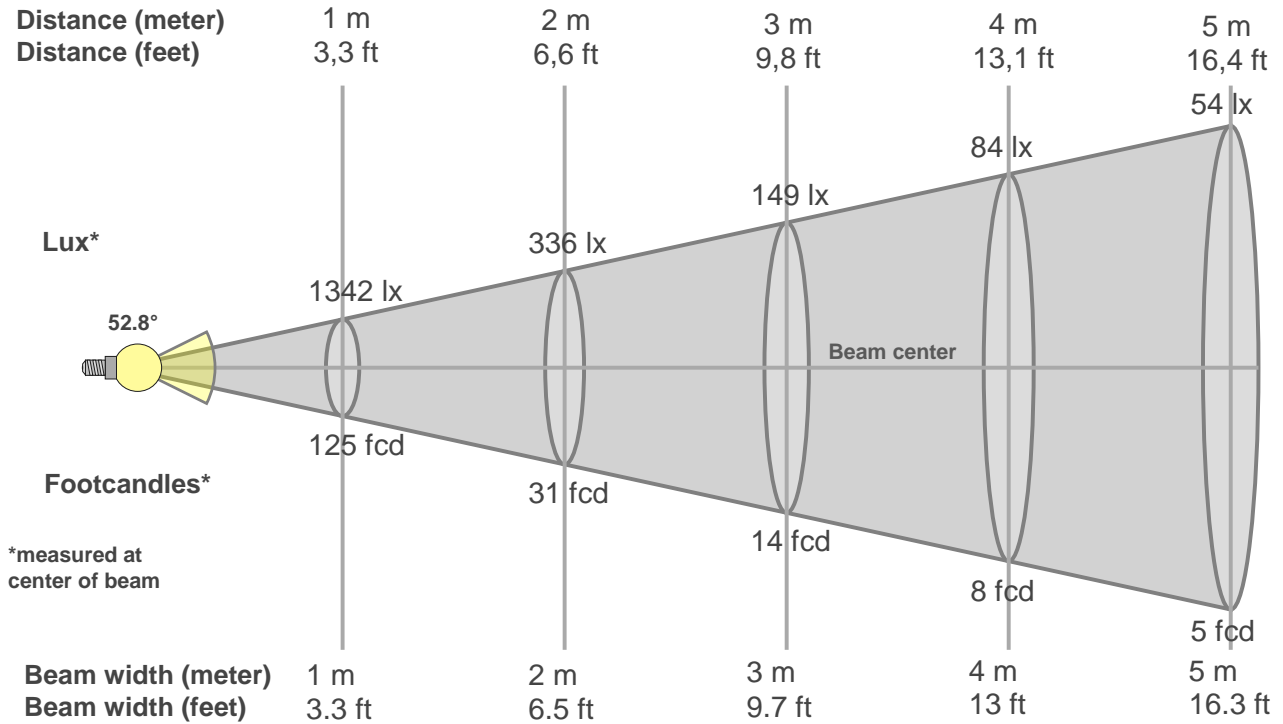
# TM30 details

**Rf 89.5**  
Fidelity index Rf

**Rg 103.1**  
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	92	1%	-5%
9	92	-2%	-4%
10	91	-4%	0%
11	87	-2%	7%
12	90	3%	4%
13	92	5%	0%
14	90	6%	-4%
15	88	3%	-6%
16	89	0%	-8%





### 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
1342lx	336lx	149lx	84lx	54lx	37lx	27lx	21lx	17lx	13lx	11lx	9lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx
124.7fcd	31.2fcd	13.9fcd	7.8fcd	5fcd	3.5fcd	2.5fcd	1.9fcd	1.5fcd	1.2fcd	1fcd	0.9fcd	0.7fcd	0.6fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd

### 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°
1342	1335	1331	1319	1296	1279	1243	1202	1141	1071	994	896	752	590	431	307	237	180	133	101
100%	99%	99%	98%	97%	95%	93%	90%	85%	80%	74%	67%	56%	44%	32%	23%	18%	13%	10%	7%

### 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°
1342	1341	1332	1316	1294	1266	1227	1185	1131	1054	956	840	699	535	387	278	205	154	112	83
100%	100%	99%	98%	96%	94%	91%	88%	84%	79%	71%	63%	52%	40%	29%	21%	15%	12%	8%	6%

### 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°
1342	1333	1329	1309	1300	1275	1247	1199	1134	1068	987	900	749	590	421	300	220	168	124	90
100%	99%	99%	98%	97%	95%	93%	89%	85%	80%	74%	67%	56%	44%	31%	22%	16%	13%	9%	7%

### 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°
1342	1338	1329	1314	1295	1268	1233	1193	1137	1057	965	839	699	542	409	319	249	197	146	111
100%	100%	99%	98%	96%	94%	92%	89%	85%	79%	72%	63%	52%	40%	30%	24%	19%	15%	11%	8%

<b>Beam angle 50%</b>	<b>Field angle 10%</b>	<b>Cutoff angle 2,5%</b>	<b>Intensity ratio in 120° cone</b>	<b>Intensity ratio in 90° cone</b>
<b>52.8°</b>	<b>73.2°</b>	<b>88.1°</b>	<b>1.0%</b>	<b>1.0%</b>



