

Light efficiency:



Light quality:



Color temperature:



Output: 1383 lm

Peak: 2021 cd

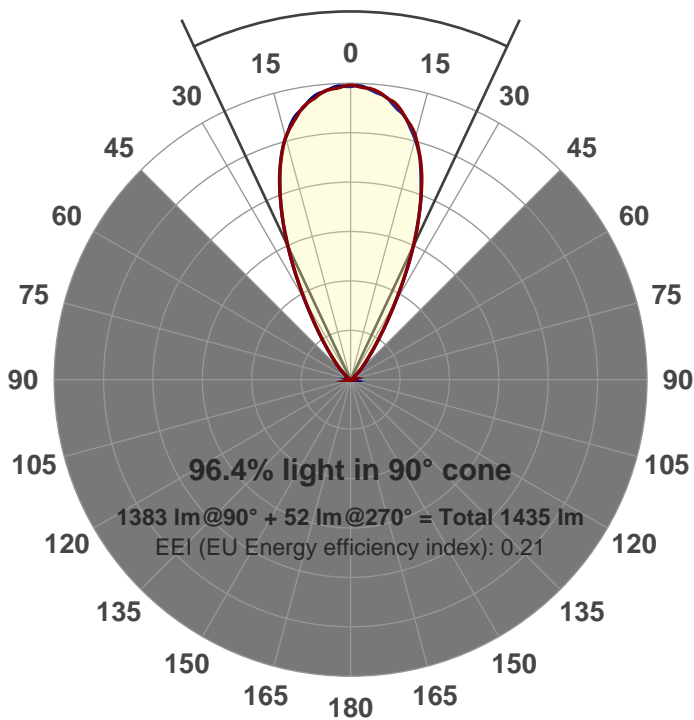
Power: 21.1 W

PF: 0.99



Beam angle

50.3°



Product name:
GR-CZ20-WF-RD-91A

Item number:
GR-CZ20-WF-RD-91A

Date and time:
6/14/2017 2:15:31 PM

Description:
V6

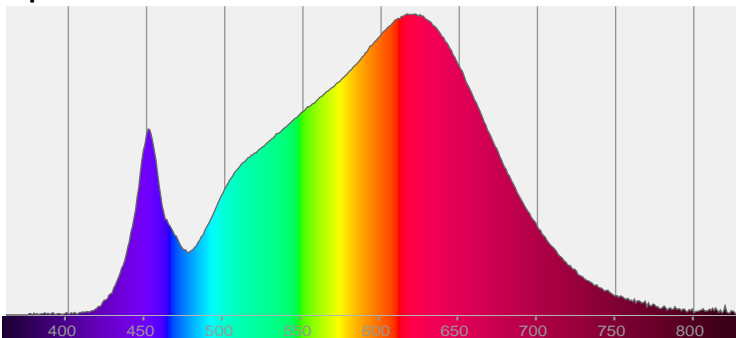
LUM: 1383

PPF: 23.2

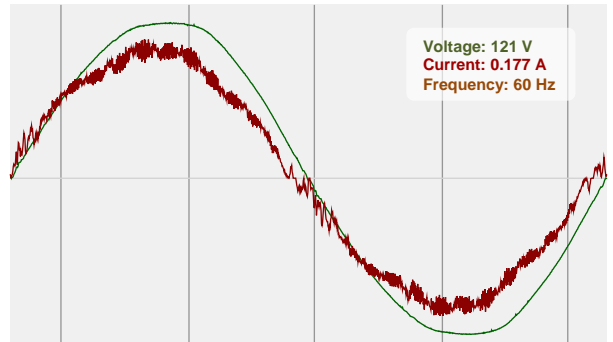


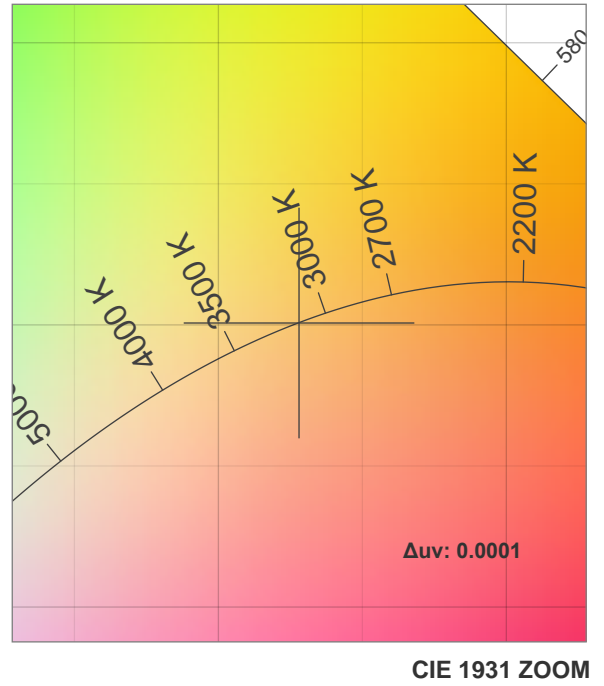
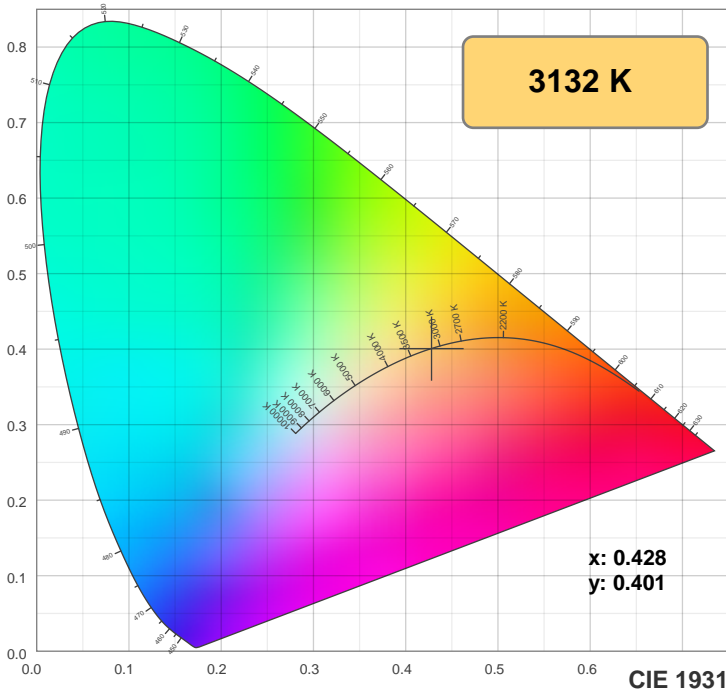
CIE 1931
x: 0.428
y: 0.401

Spectra

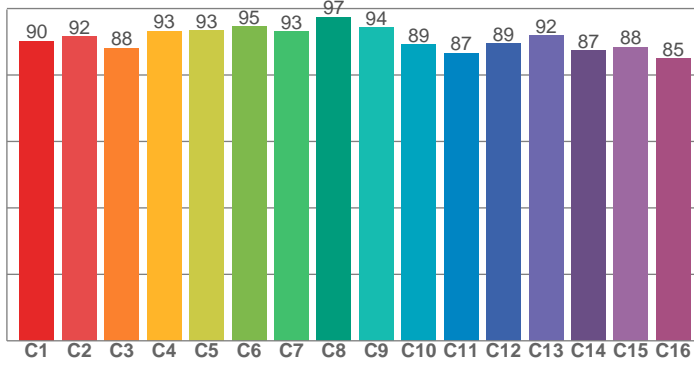


Power

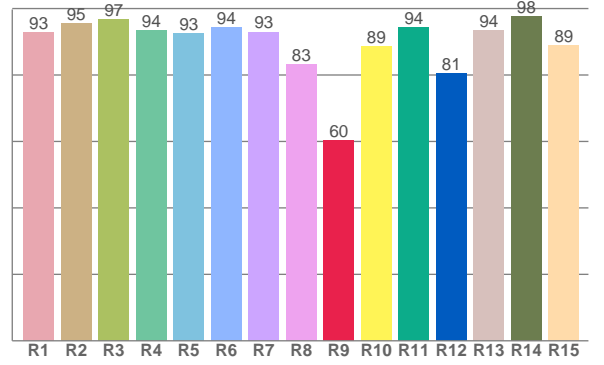




TM30: 90.9



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
92.9	95.5	96.8	93.5	92.6	94.2	93.0	83.2	60.2	88.7	94.4	80.5	93.6	97.6	89.0

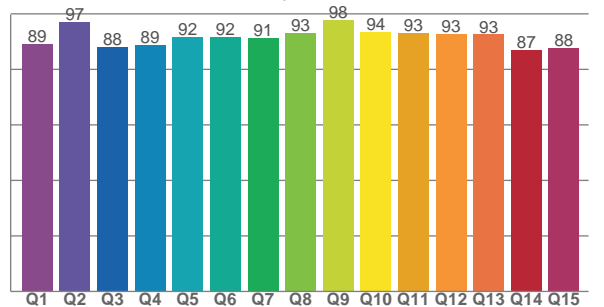
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.3	91.5	88.2	93.2	93.4	94.5	93.2	97.5	94.4	89.2	86.6	89.4	92.0	87.3	88.5	85.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89.1	96.9	87.9	88.7	91.8	91.7	91.2	93.1	97.7	93.5	93.0	92.7	92.6	87.1	87.6

CQS: 91.0



Color parameters

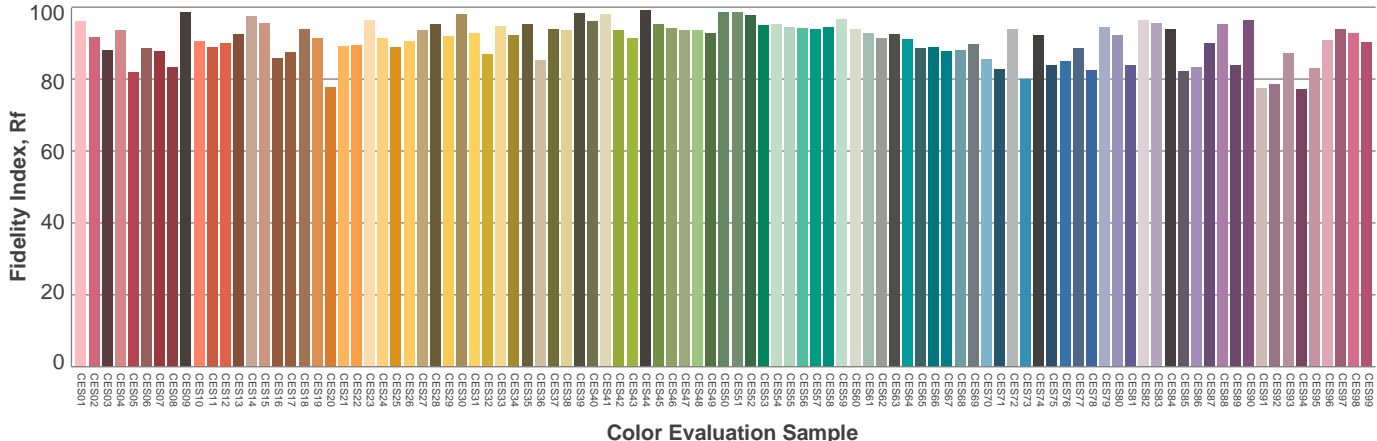
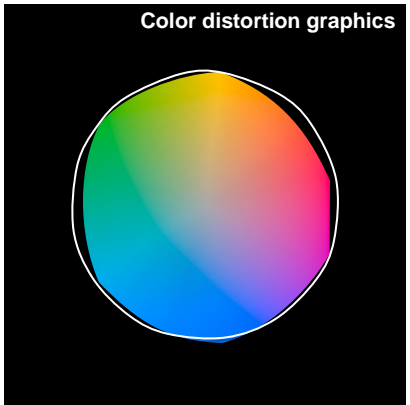
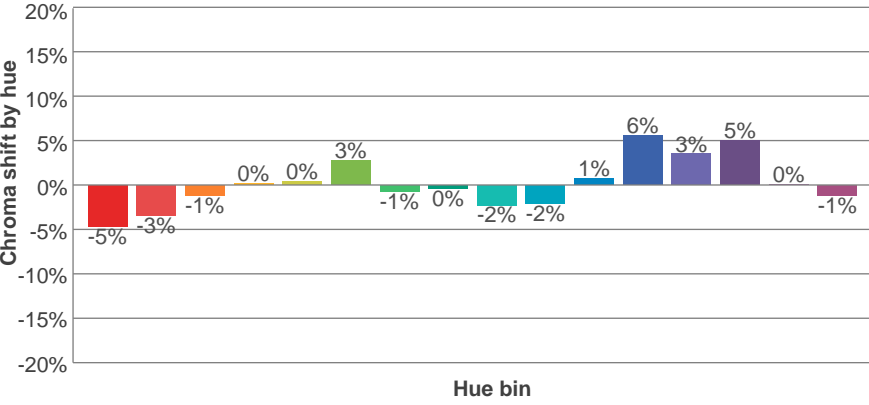
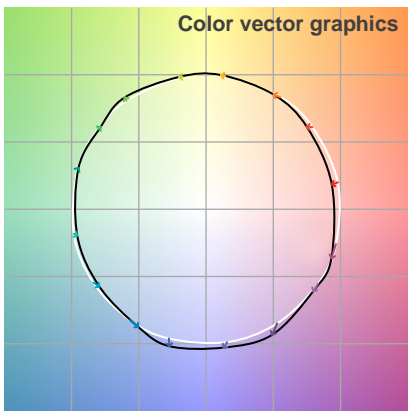
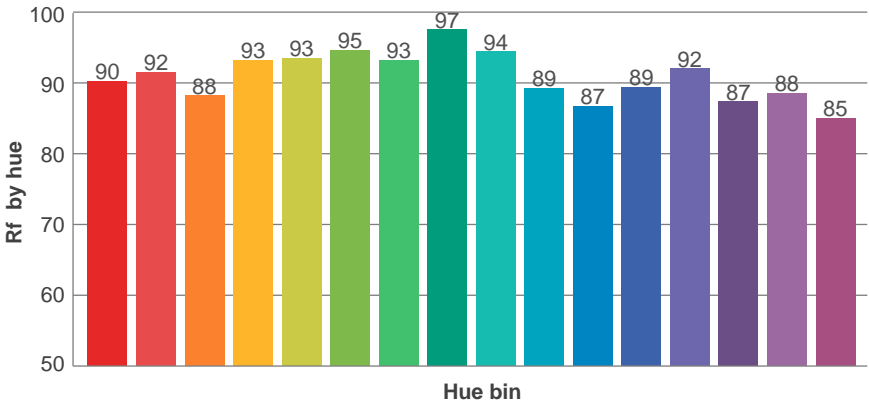
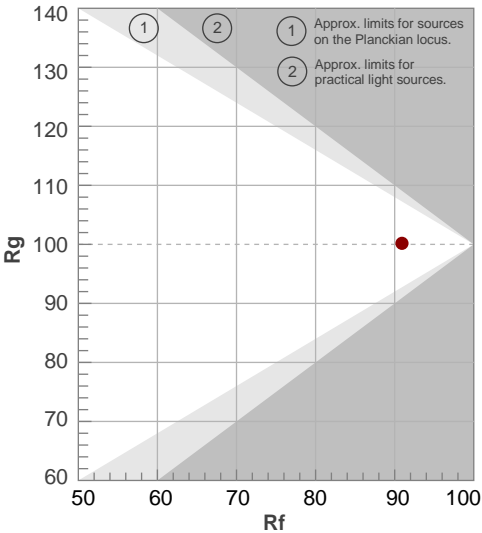
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3132 K	92.7	60.2	90.9	100.2	91.0	0.428	0.401	0.246	0.346	0.0001

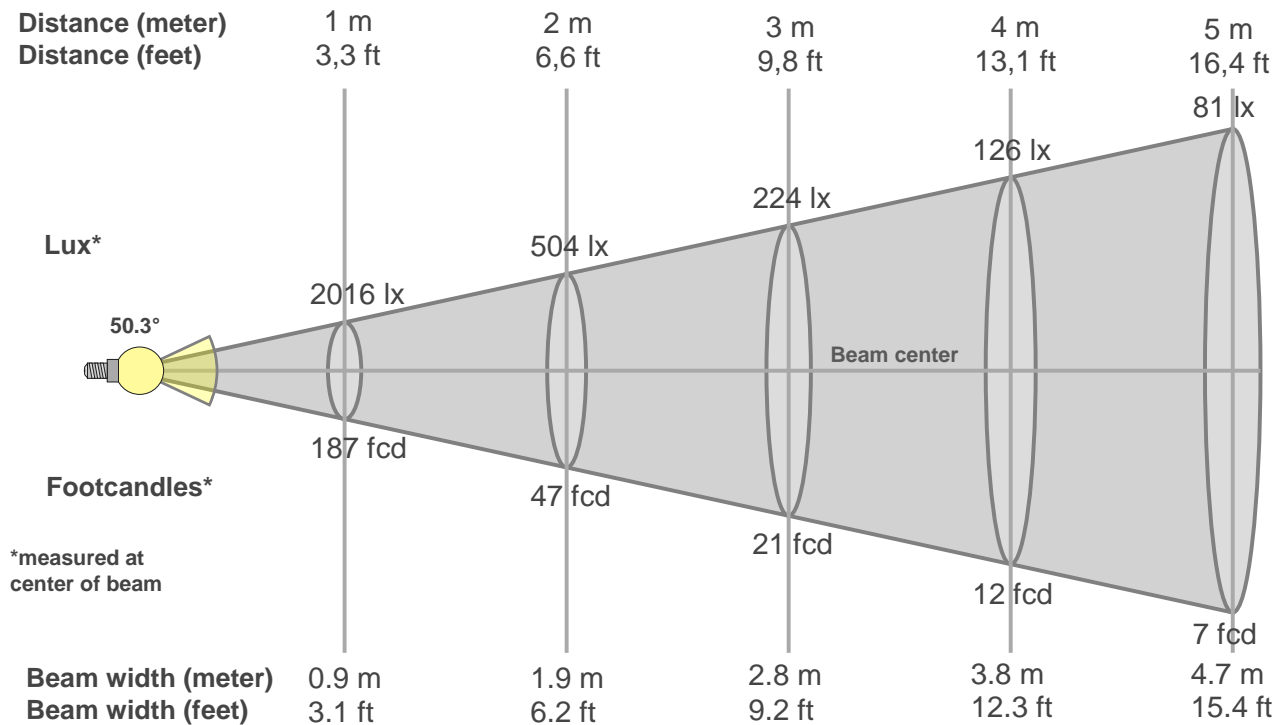
TM30 details

Rf 90.9
Fidelity index Rf

Rg 100.2
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	-1%
2	92	-3%	3%
3	88	-1%	5%
4	93	0%	3%
5	93	0%	3%
6	95	3%	0%
7	93	-1%	-3%
8	97	0%	-1%
9	94	-2%	2%
10	89	-2%	5%
11	87	1%	8%
12	89	6%	2%
13	92	3%	-3%
14	87	5%	-8%
15	88	0%	-7%
16	85	-1%	-11%





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
2016lx	504lx	224lx	126lx	81lx	56lx	41lx	32lx	25lx	20lx	17lx	14lx	12lx	10lx	9lx	8lx	7lx	6lx	6lx	5lx
187.3fcd	46.8fcd	20.8fcd	11.7fcd	7.5fcd	5.2fcd	3.8fcd	2.9fcd	2.3fcd	1.9fcd	1.5fcd	1.3fcd	1.1fcd	1fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd	0.5fcd	0.5fcd

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°
2016	2007	1996	1972	1935	1896	1827	1760	1672	1556	1425	1266	1111	937	770	619	487	382	296	230
100%	100%	99%	98%	96%	94%	91%	87%	83%	77%	71%	63%	55%	46%	38%	31%	24%	19%	15%	11%

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°
2016	2016	2000	1979	1946	1891	1843	1761	1672	1557	1415	1271	1104	942	776	624	496	388	304	235
100%	100%	99%	98%	97%	94%	91%	87%	83%	77%	70%	63%	55%	47%	38%	31%	25%	19%	15%	12%

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°
2016	2008	2001	1977	1939	1900	1832	1769	1672	1561	1426	1269	1111	934	765	604	470	362	276	212
100%	100%	99%	98%	96%	94%	91%	88%	83%	77%	71%	63%	55%	46%	38%	30%	23%	18%	14%	11%

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°
2016	2015	1992	1969	1933	1879	1829	1748	1663	1550	1414	1270	1105	941	769	613	482	371	288	223
100%	100%	99%	98%	96%	93%	91%	87%	82%	77%	70%	63%	55%	47%	38%	30%	24%	18%	14%	11%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
50.3°	77.7°	96.3°	1.0%	1.0%

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