

Light efficiency:



Light quality:



Color temperature:



Output: 1467 lm

Peak: 1991 cd

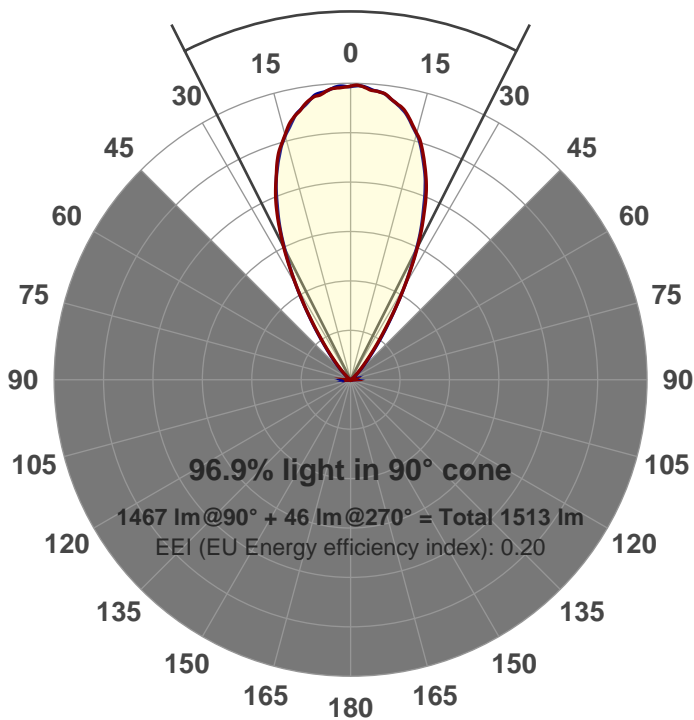
Power: 21.1 W

PF: 0.99



Beam angle

53.5°



Product name:

GRO-CZ20-WF-RD-91A

Item number:

GRO-CZ20-WF-RD-91A

Date and time:

6/14/2017 2:25:28 PM

Description:

V6

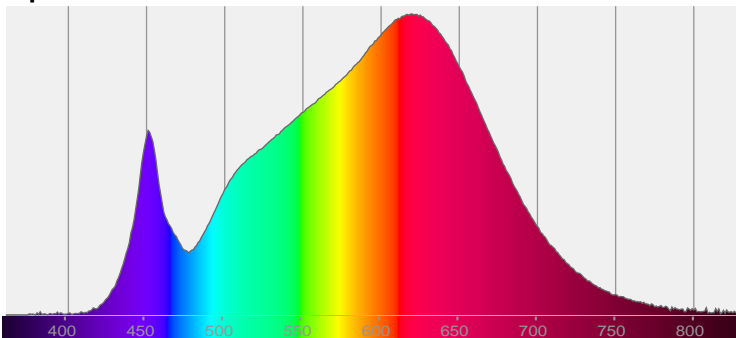
LUM: 1467

PPF: 24.6

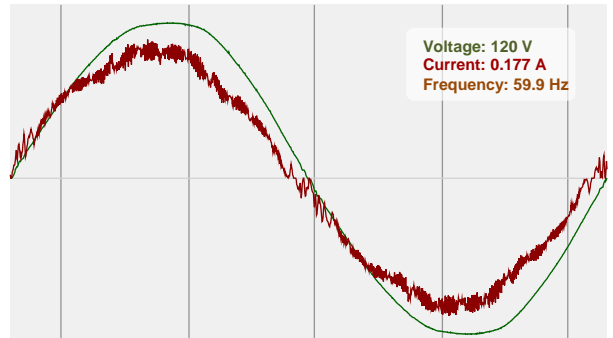


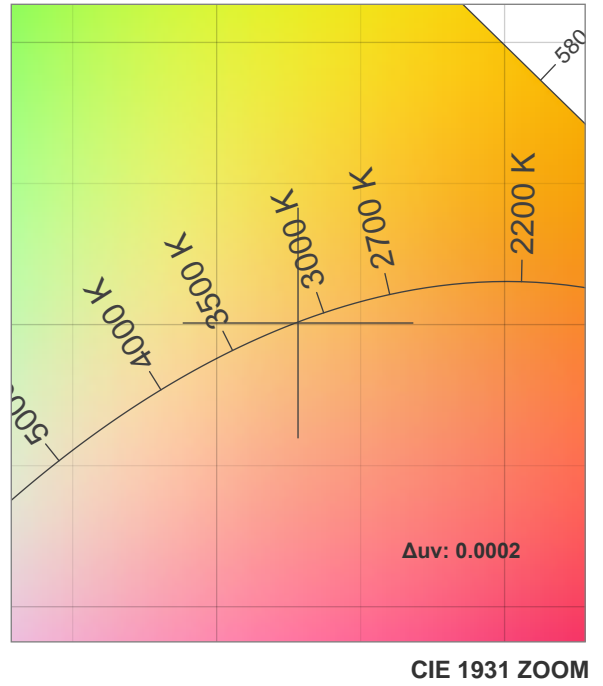
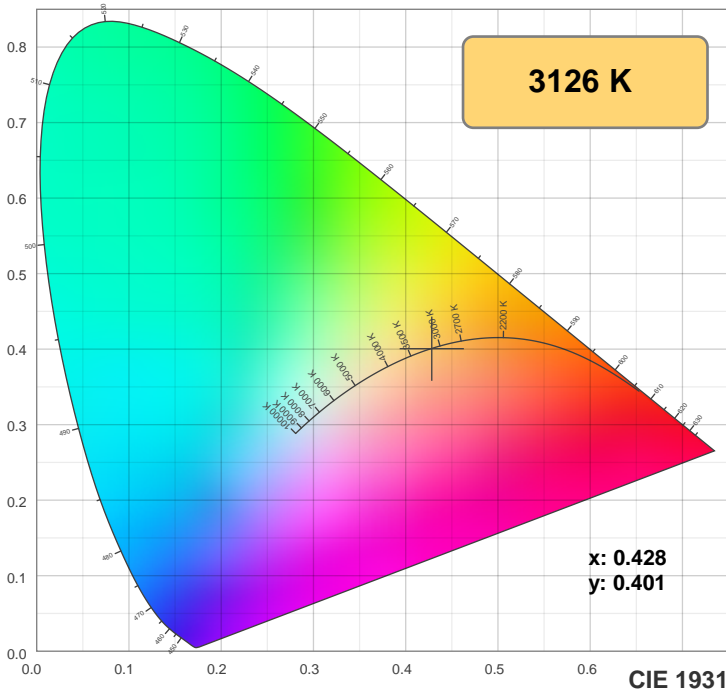
CIE 1931
x: 0.428
y: 0.401

Spectra

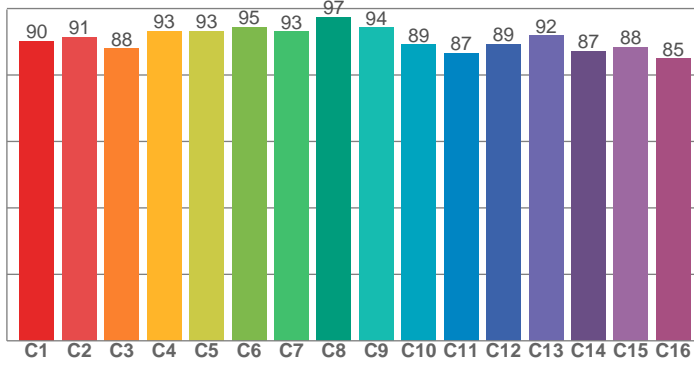


Power

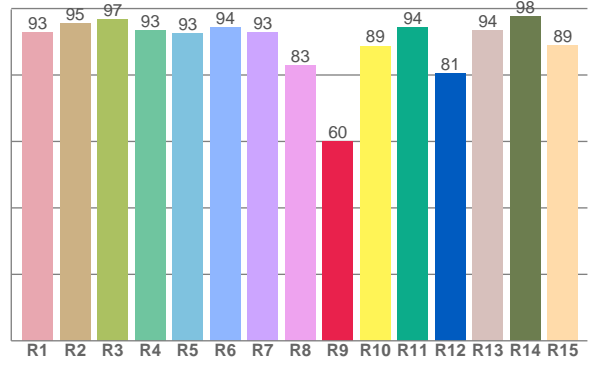




TM30: 90.9



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	92.5	94.2	92.9	83.0	60.0	88.8	94.3	80.6	93.5	97.7	89.0

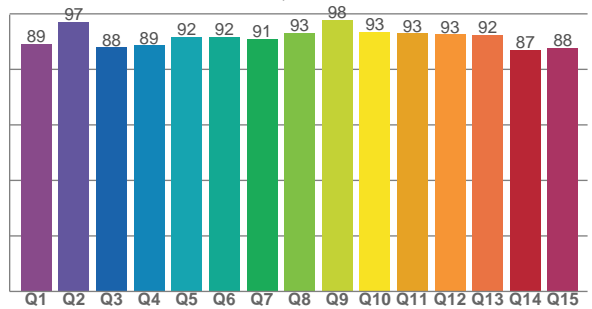
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.2	91.4	88.1	93.3	93.3	94.5	93.1	97.4	94.4	89.2	86.6	89.4	92.0	87.3	88.4	84.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89.1	96.9	87.9	88.6	91.7	91.6	91.1	93.0	97.7	93.4	92.9	92.6	92.5	87.0	87.6

CQS: 90.9



Color parameters

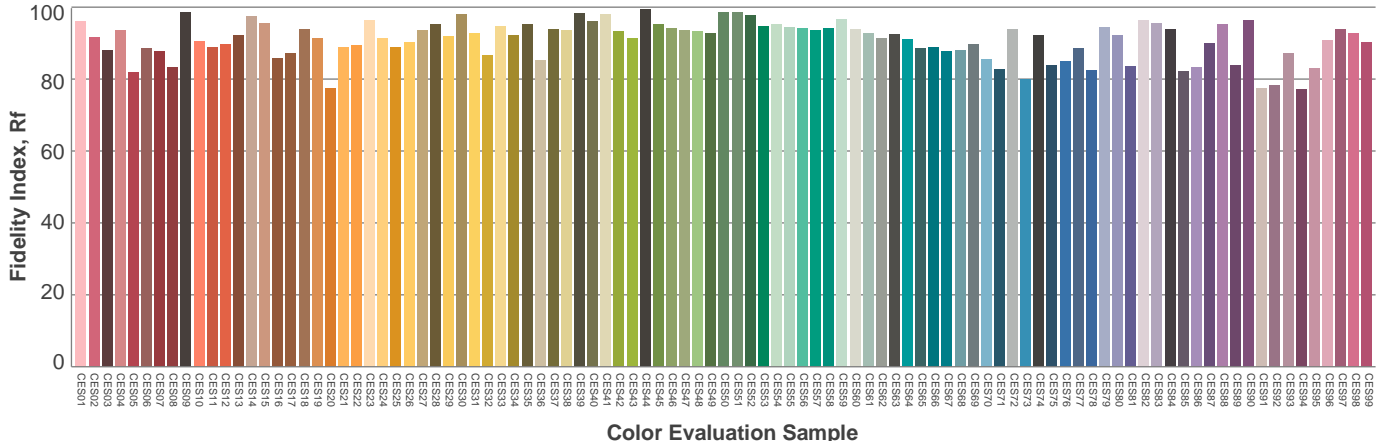
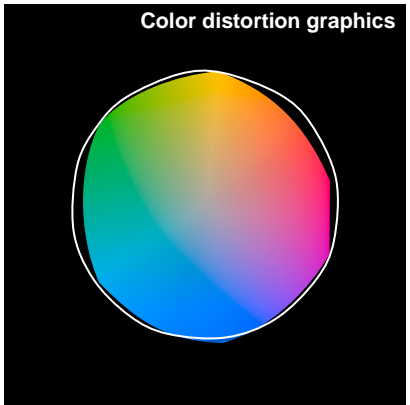
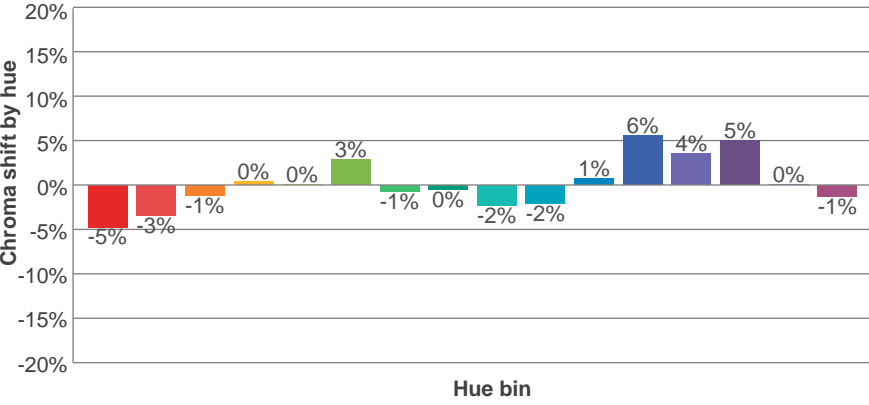
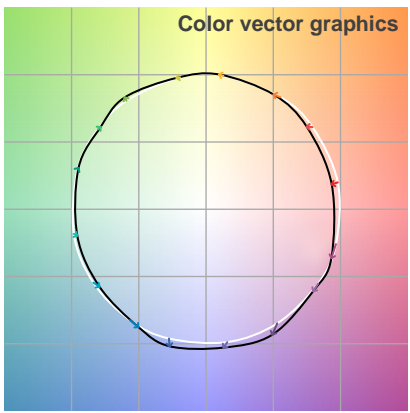
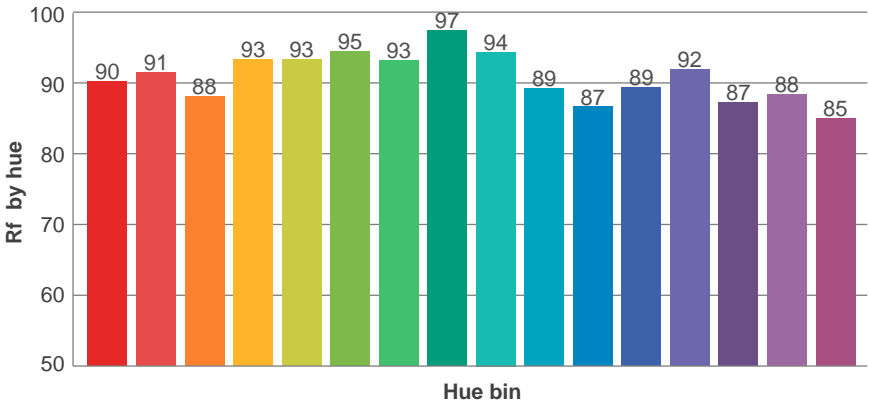
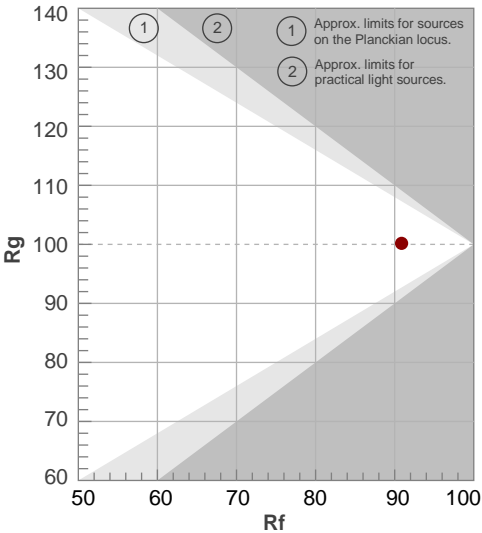
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3126 K	92.7	60.0	90.9	100.2	90.9	0.428	0.401	0.246	0.346	0.0002

TM30 details

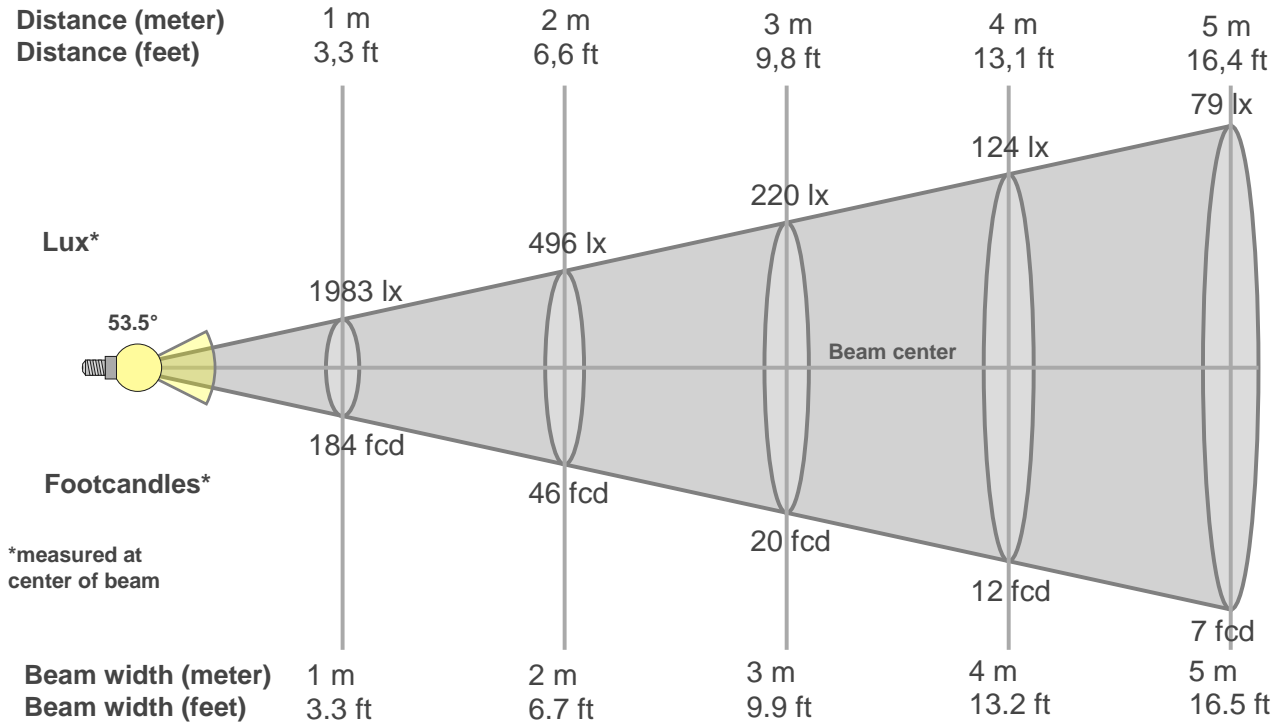
Rf 90.9
Fidelity index Rf

Rg 100.2
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	-1%
2	91	-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	4%	-3%
14	87	5%	-8%
15	88	0%	-7%
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
1983lx	496lx	220lx	124lx	79lx	55lx	40lx	31lx	24lx	20lx	16lx	14lx	12lx	10lx	9lx	8lx	7lx	6lx	5lx	5lx
184.2fcd	46.1fcd	20.5fcd	11.5fcd	7.4fcd	5.1fcd	3.8fcd	2.9fcd	2.3fcd	1.8fcd	1.5fcd	1.3fcd	1.1fcd	0.9fcd	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°
1983	1975	1968	1937	1917	1870	1821	1757	1672	1588	1469	1353	1218	1063	901	735	583	443	330	242
100%	100%	99%	98%	97%	94%	92%	89%	84%	80%	74%	68%	61%	54%	45%	37%	29%	22%	17%	12%

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°
1983	1986	1967	1950	1918	1867	1818	1742	1667	1571	1464	1336	1198	1050	888	735	584	455	344	258
100%	100%	99%	98%	97%	94%	92%	88%	84%	79%	74%	67%	60%	53%	45%	37%	29%	23%	17%	13%

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°
1983	1986	1962	1953	1922	1884	1835	1760	1692	1592	1483	1364	1216	1066	899	731	574	432	322	233
100%	100%	99%	98%	97%	95%	93%	89%	85%	80%	75%	69%	61%	54%	45%	37%	29%	22%	16%	12%

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°
1983	1986	1967	1954	1919	1879	1828	1754	1682	1577	1470	1338	1196	1050	884	728	577	450	344	259
100%	100%	99%	99%	97%	95%	92%	88%	85%	80%	74%	67%	60%	53%	45%	37%	29%	23%	17%	13%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
53.5°	78.8°	95.4°	1.0%	1.0%

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