

Light efficiency:



Light quality:



Color temperature:



Output: 1611 lm

Peak: 2190 cd

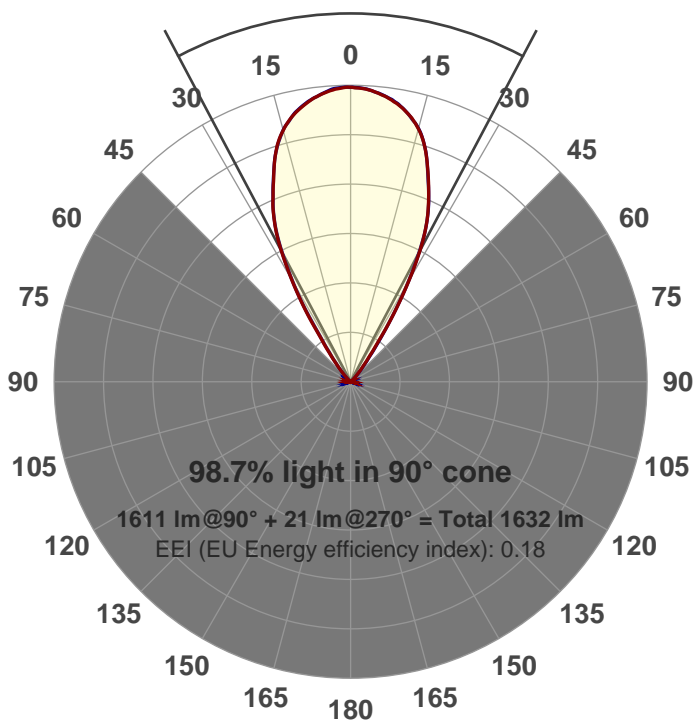
Power: 21.1 W

PF: 0.99



Beam angle

55.8°



Product name:

GRO-CZ20-WF-RD

Item number:

GRO-CZ20-WF-RD

Date and time:

6/14/2017 2:30:22 PM

Description:

V6

LUM: 1611

PPF: 27.1

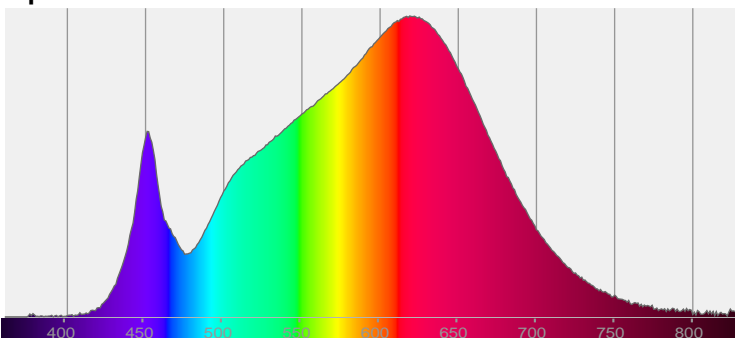


CIE 1931

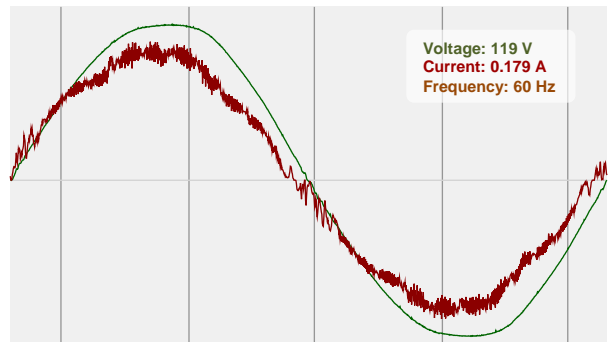
x: 0.428

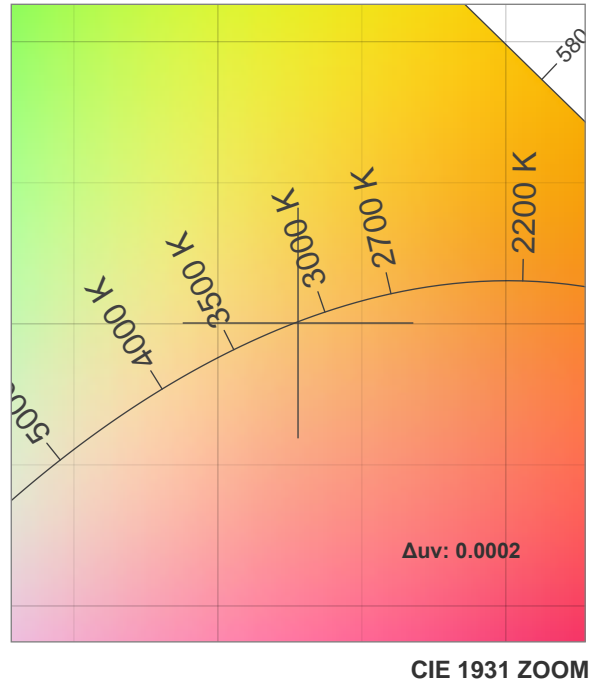
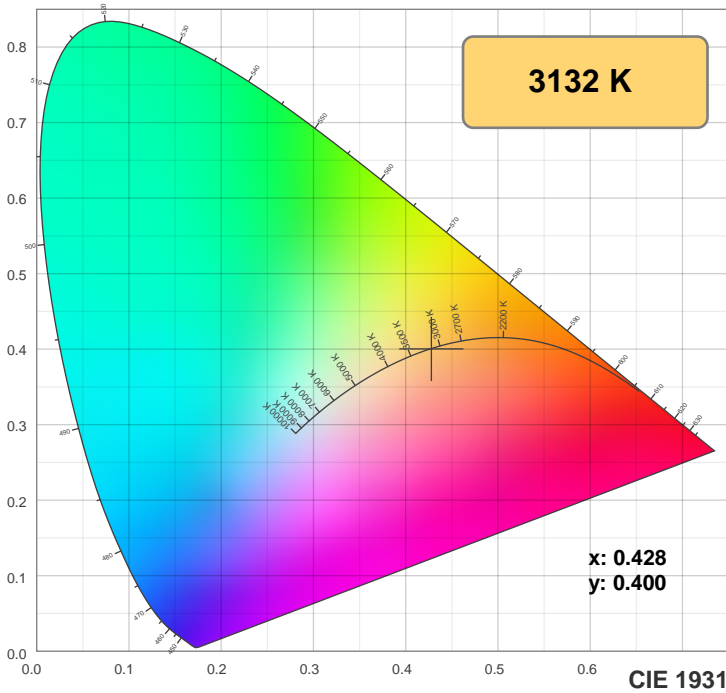
y: 0.400

Spectra

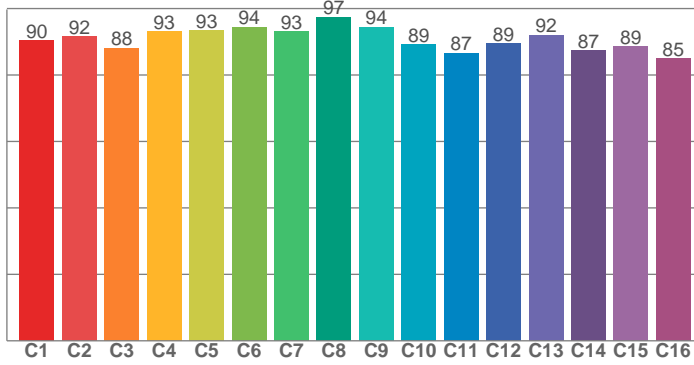


Power

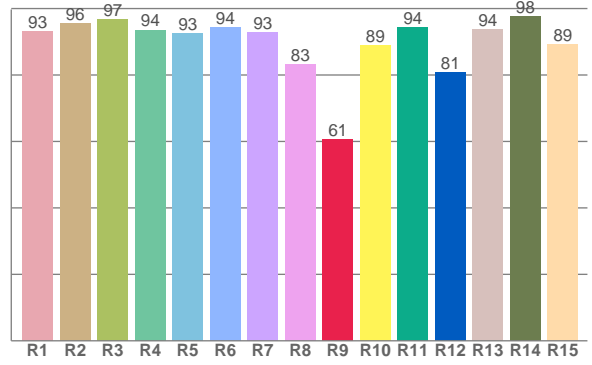




TM30: 90.9



CRI: 92.8 (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
93.0	95.5	96.8	93.6	92.6	94.3	93.0	83.2	60.5	88.9	94.4	80.7	93.6	97.6	89.1

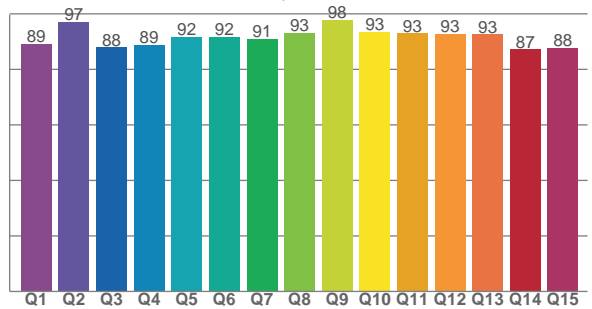
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.3	91.5	88.1	93.2	93.4	94.5	93.2	97.5	94.4	89.3	86.7	89.4	92.0	87.4	88.5	85.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89.2	97.0	87.9	88.7	91.8	91.7	91.1	93.0	97.7	93.5	93.0	92.7	92.5	87.2	87.7

CQS: 91.0



Color parameters

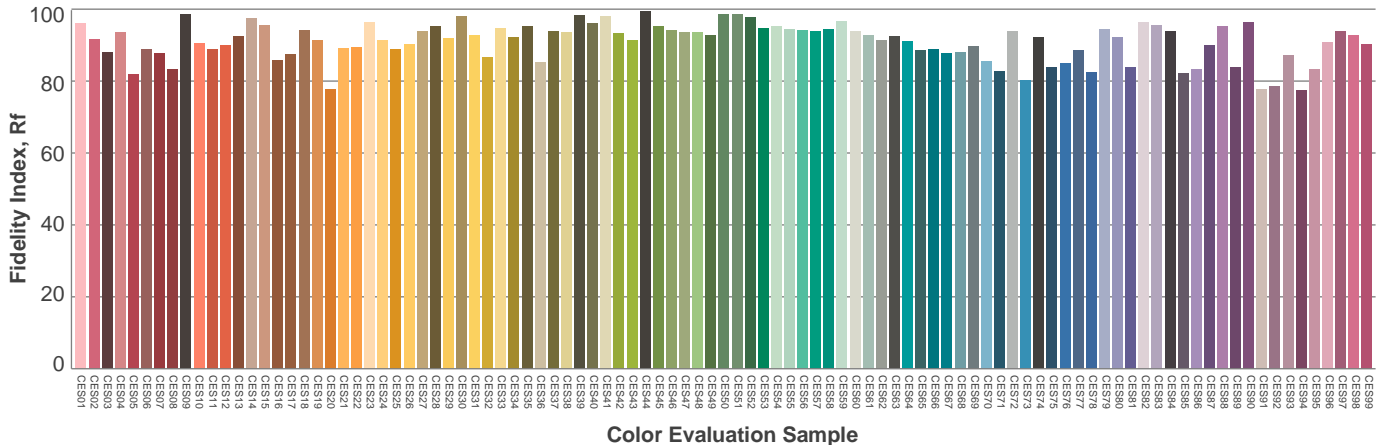
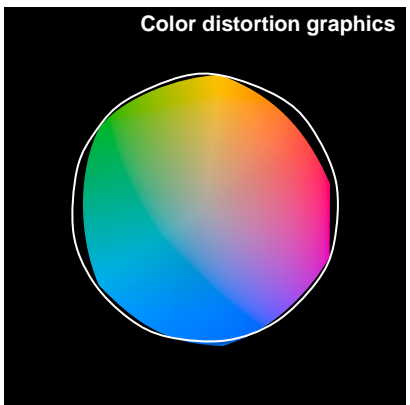
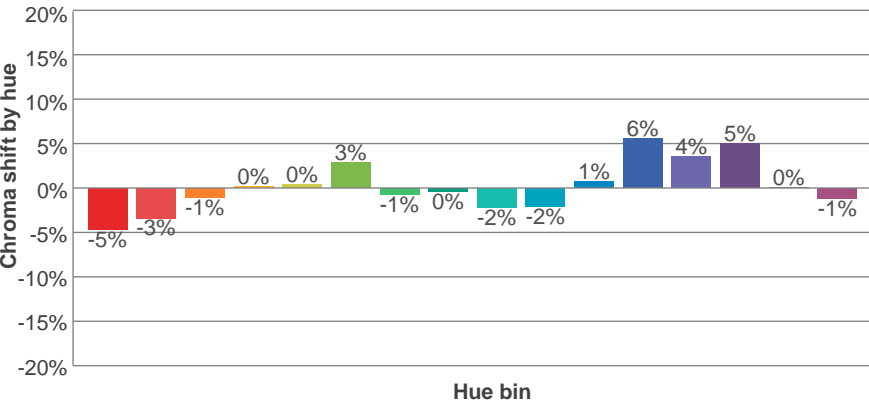
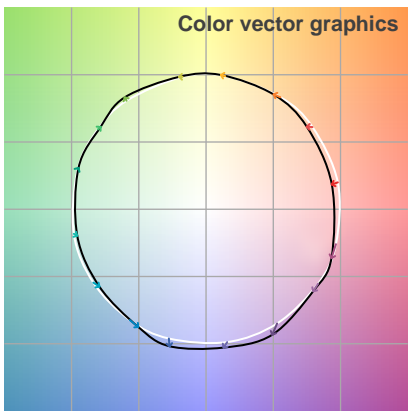
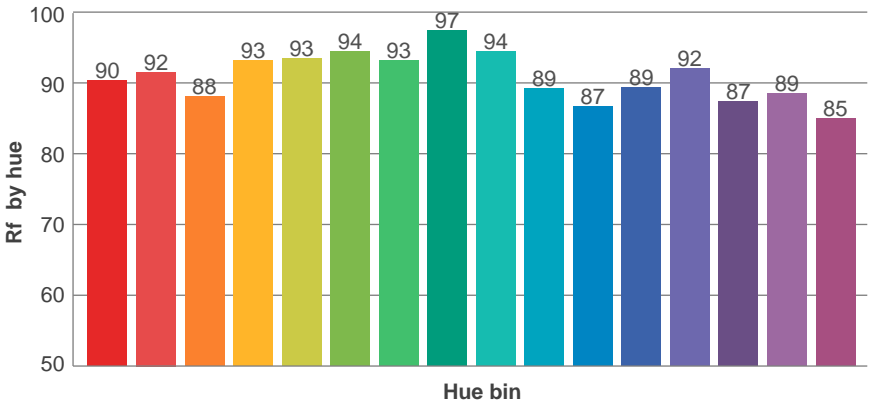
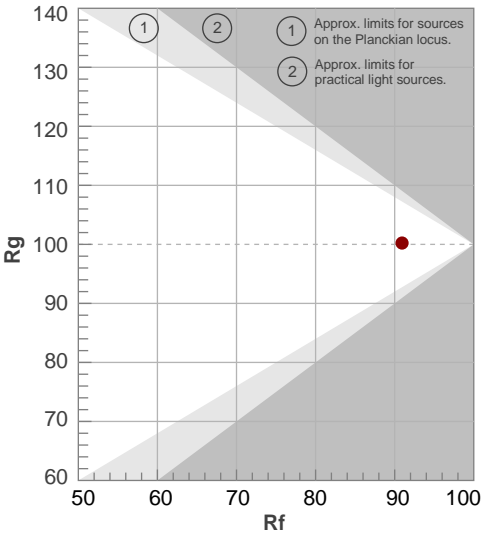
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3132 K	92.8	60.5	90.9	100.2	91.0	0.428	0.400	0.246	0.346	0.0002

TM30 details

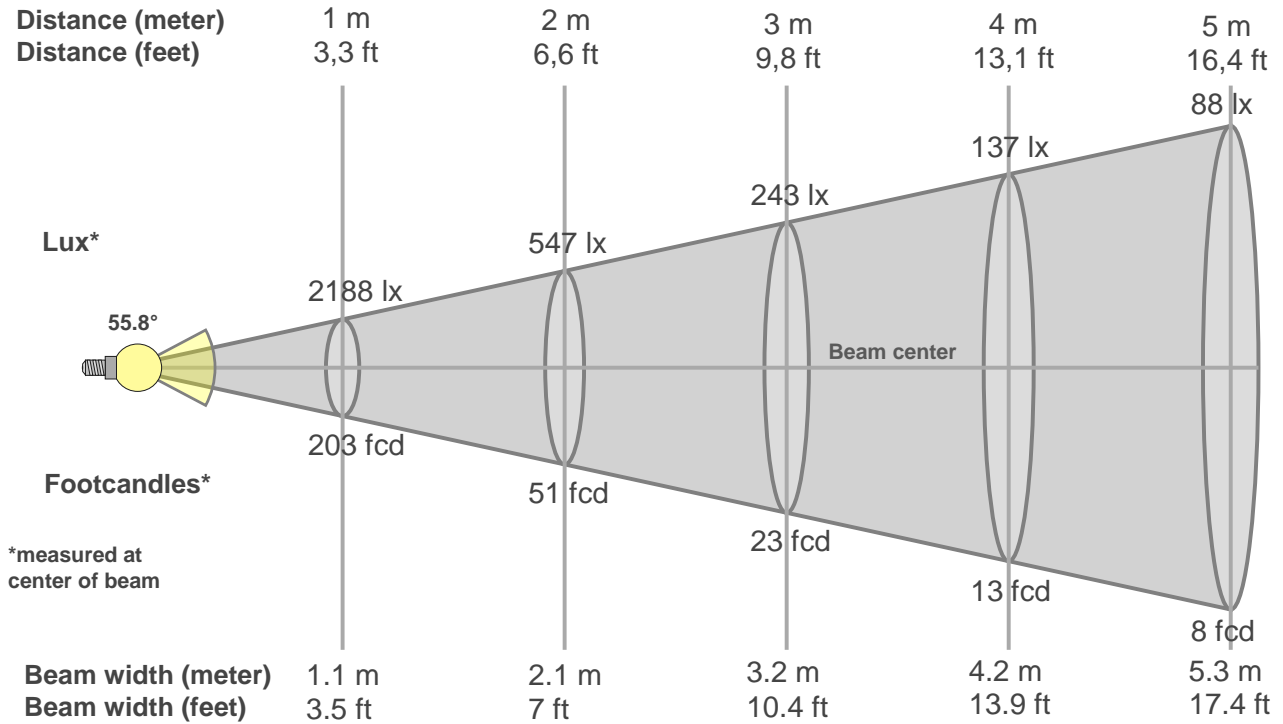
Rf 90.9
Fidelity index Rf

Rg 100.2
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	-1%
2	92	-3%	3%
3	88	-1%	5%
4	93	0%	3%
5	93	0%	3%
6	94	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	89	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
2188lx	547lx	243lx	137lx	88lx	61lx	45lx	34lx	27lx	22lx	18lx	15lx	13lx	11lx	10lx	9lx	8lx	7lx	6lx	5lx
203.3fcd	50.8fcd	22.6fcd	12.7fcd	8.1fcd	5.6fcd	4.1fcd	3.2fcd	2.5fcd	2fcd	1.7fcd	1.4fcd	1.2fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd	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°
2188	2182	2168	2145	2115	2075	2030	1971	1896	1796	1667	1538	1419	1275	1089	875	655	421	287	197
100%	100%	99%	98%	97%	95%	93%	90%	87%	82%	76%	70%	65%	58%	50%	40%	30%	19%	13%	9%

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°
2188	2187	2174	2146	2116	2079	2033	1970	1892	1795	1667	1539	1414	1269	1077	860	632	390	261	174
100%	100%	99%	98%	97%	95%	93%	90%	86%	82%	76%	70%	65%	58%	49%	39%	29%	18%	12%	8%

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°
2188	2182	2170	2147	2120	2085	2039	1982	1906	1804	1677	1548	1419	1276	1088	865	641	425	269	178
100%	100%	99%	98%	97%	95%	93%	91%	87%	82%	77%	71%	65%	58%	50%	40%	29%	19%	12%	8%

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°
2188	2184	2170	2150	2123	2088	2039	1982	1908	1804	1673	1547	1423	1274	1076	857	632	435	292	196
100%	100%	99%	98%	97%	95%	93%	91%	87%	82%	76%	71%	65%	58%	49%	39%	29%	20%	13%	9%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
55.8°	74.4°	87.7°	1.0%	1.0%

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