

Light efficiency:



Light quality:



Color temperature:



Output: 1454 lm

Peak: 5132 cd

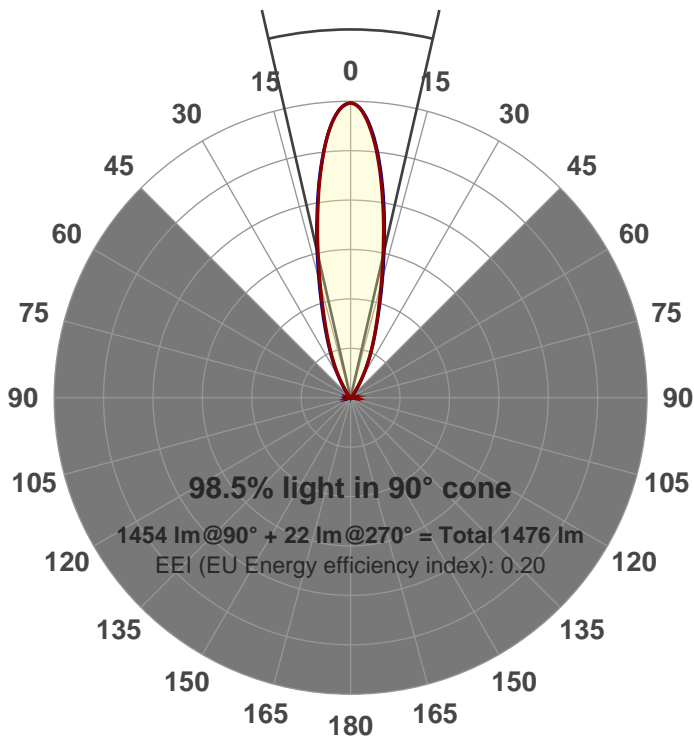
Power: 21.1 W

PF: 0.99



Beam angle

25.8°



Product name:

GRO-CZ20-NF-RD-91A

Item number:

GRO-CZ20-NF-RD-91A

Date and time:

6/14/2017 5:03:25 PM

Description:

V6

LUM: 1454

PPF: 24.5

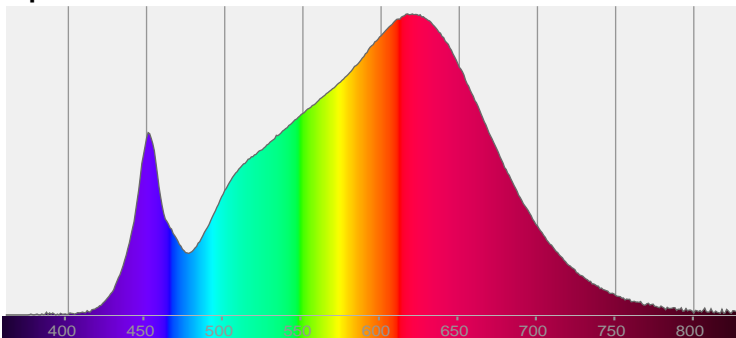


CIE 1931

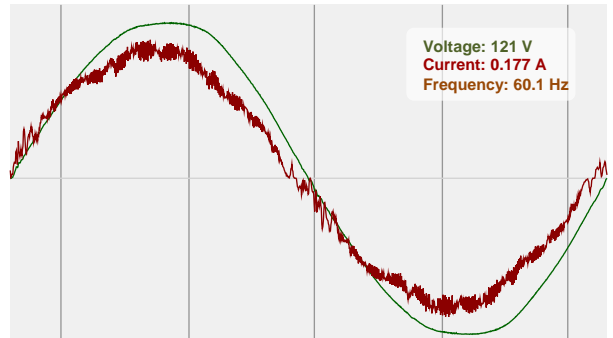
x: 0.429

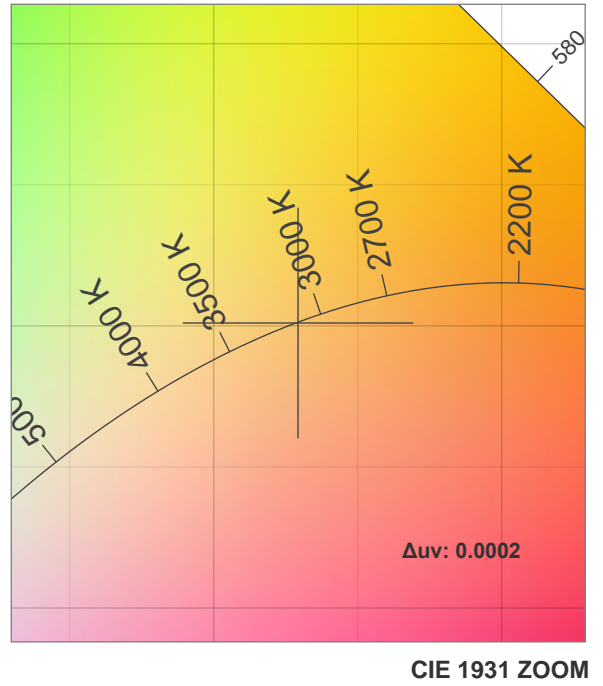
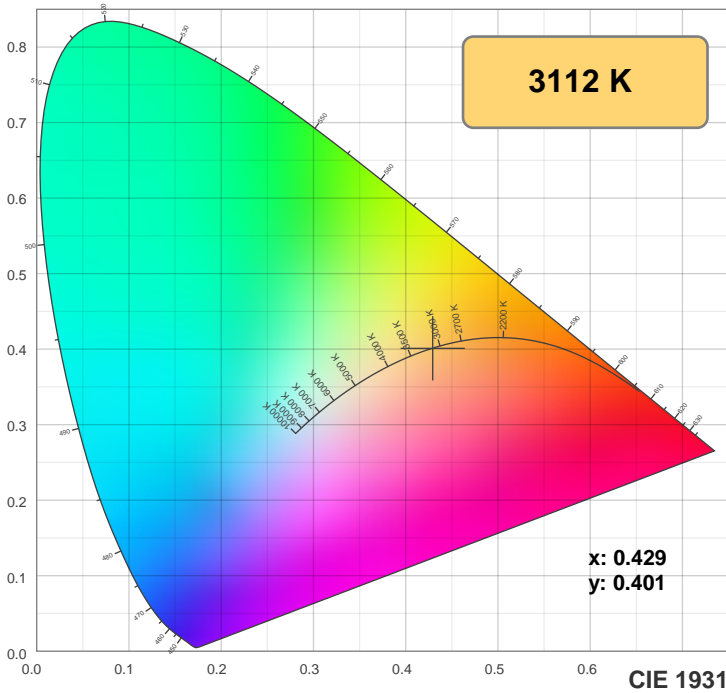
y: 0.401

Spectra

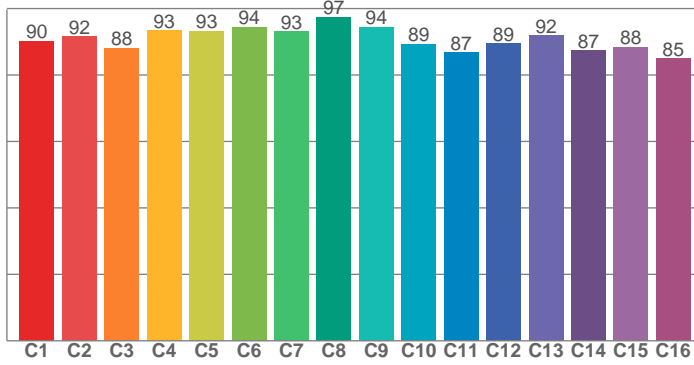


Power

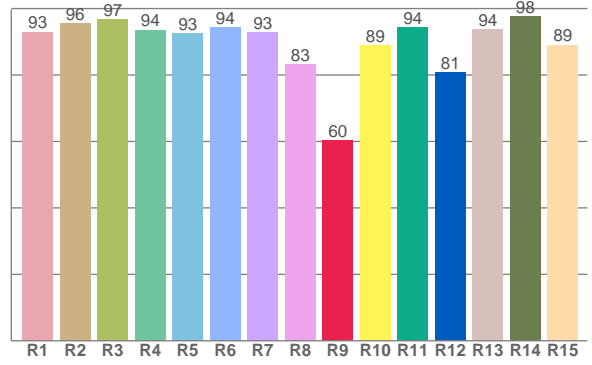




TM30: 90.9



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
93.0	95.5	96.8	93.6	92.6	94.3	92.9	83.1	60.3	88.8	94.4	80.7	93.6	97.6	89.1

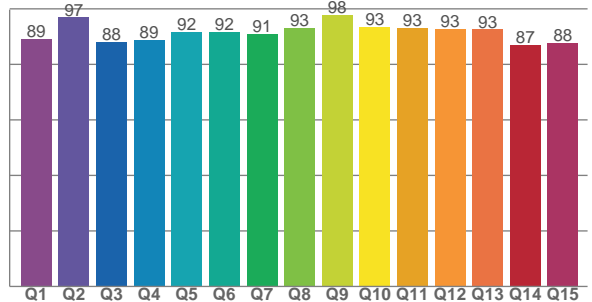
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.3	91.5	88.1	93.3	93.3	94.5	93.2	97.5	94.4	89.3	86.7	89.4	91.9	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	91.1	93.0	97.7	93.5	93.0	92.7	92.5	87.1	87.6

CQS: 91.0



Color parameters

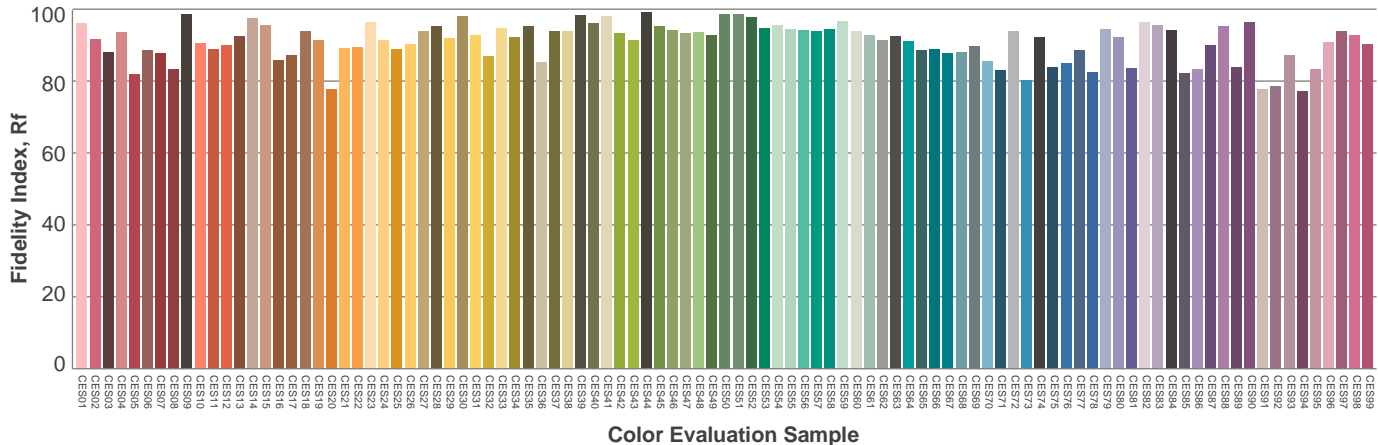
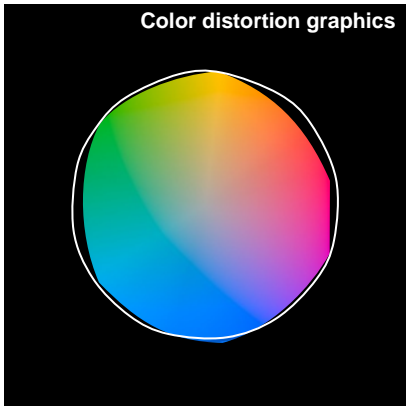
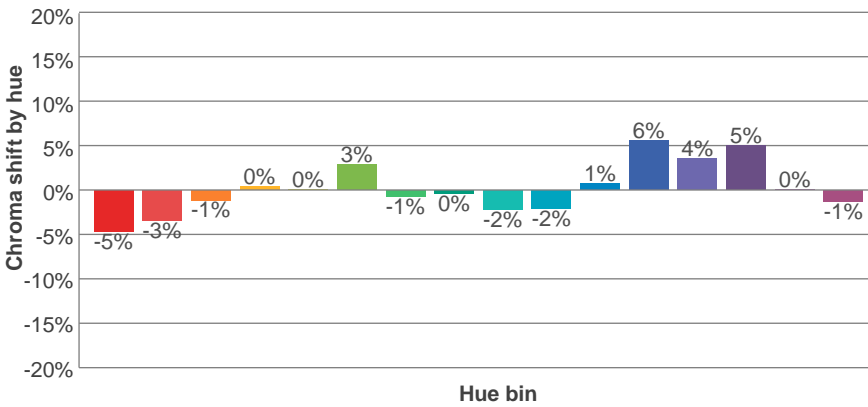
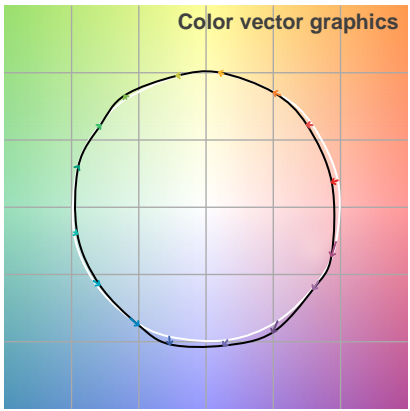
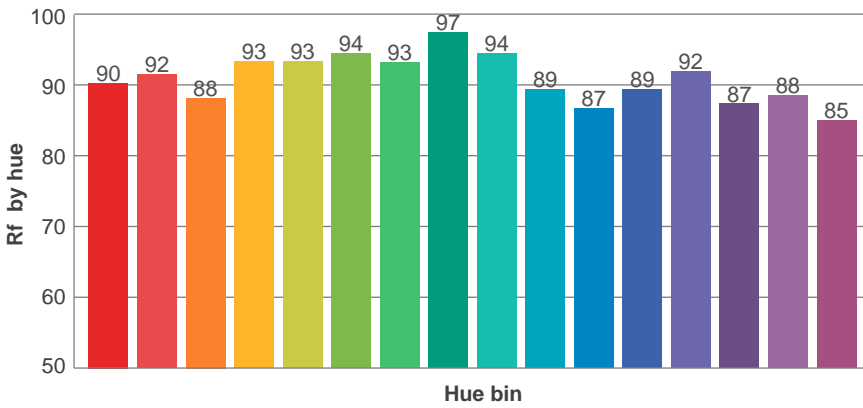
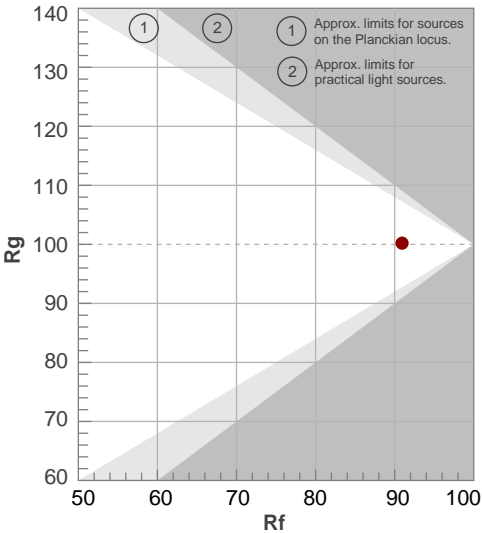
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3112 K	92.7	60.3	90.9	100.2	91.0	0.429	0.401	0.247	0.346	0.0002

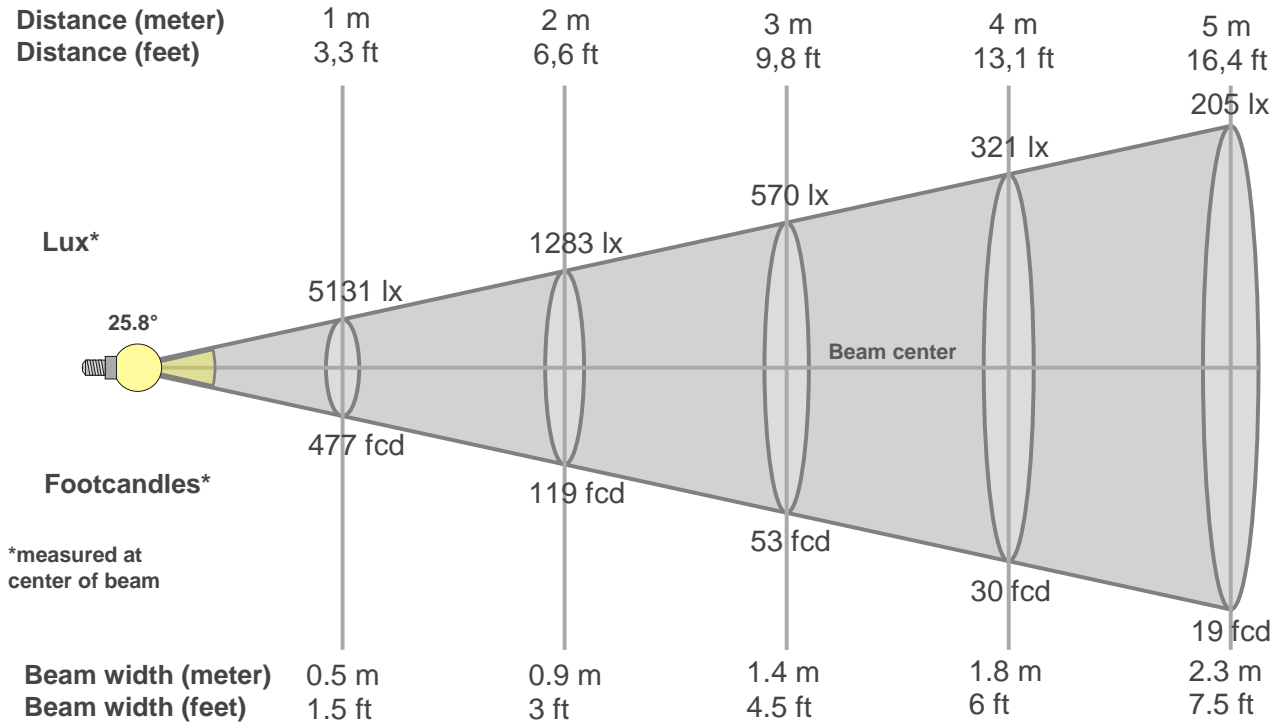
TM30 details

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	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
5131lx	1283lx	570lx	321lx	205lx	143lx	105lx	80lx	63lx	51lx	42lx	36lx	30lx	26lx	23lx	20lx	18lx	16lx	14lx	13lx
476.7fc	119.2fc	53fcd	29.8fcd	19.1fcd	13.2fcd	9.7fcd	7.4fcd	5.9fcd	4.8fcd	3.9fcd	3.3fcd	2.8fcd	2.4fcd	2.1fcd	1.9fcd	1.6fcd	1.5fcd	1.3fcd	1.2fcd

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°
5131	5044	4780	4362	3846	3292	2757	2264	1849	1501	1230	1005	815	646	498	366	255	172	115	77
100%	98%	93%	85%	75%	64%	54%	44%	36%	29%	24%	20%	16%	13%	10%	7%	5%	3%	2%	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°
5131	5036	4775	4369	3878	3342	2826	2344	1927	1579	1294	1062	864	688	533	399	288	202	139	97
100%	98%	93%	85%	76%	65%	55%	46%	38%	31%	25%	21%	17%	13%	10%	8%	6%	4%	3%	2%

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°
5131	5028	4729	4318	3806	3276	2745	2278	1870	1543	1276	1053	867	701	547	407	291	196	131	87
100%	98%	92%	84%	74%	64%	54%	44%	36%	30%	25%	21%	17%	14%	11%	8%	6%	4%	3%	2%

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°
5131	5032	4759	4361	3869	3348	2823	2350	1938	1585	1297	1068	868	691	536	403	289	202	142	100
100%	98%	93%	85%	75%	65%	55%	46%	38%	31%	25%	21%	17%	13%	10%	8%	6%	4%	3%	2%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
25.8°	56.4°	72.3°	1.0%	1.0%

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