

Light efficiency:



Light quality:



Color temperature:



Output: 1462 lm

Peak: 3256 cd

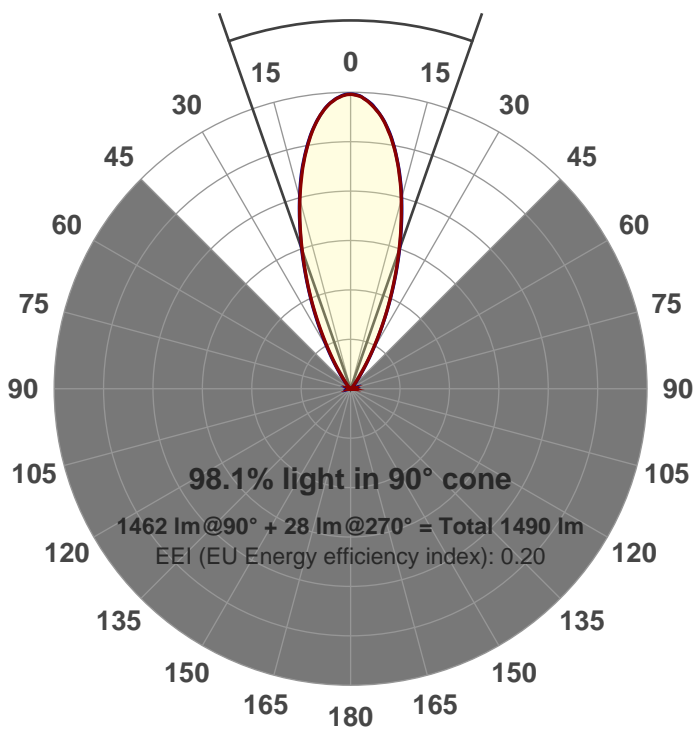
Power: 21.0 W

PF: 0.99



Beam angle

38.6°



Product name:

GRO-CZ20-FL-RD-91A

Item number:

GRO-CZ20-FL-RD-91A

Date and time:

6/14/2017 5:22:30 PM

Description:

V6

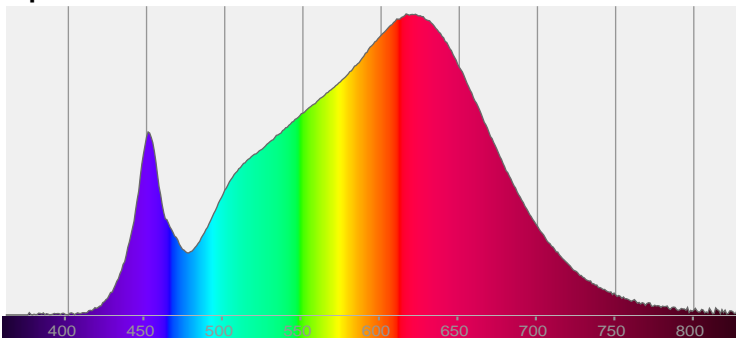
LUM: 1462

PPF: 24.6

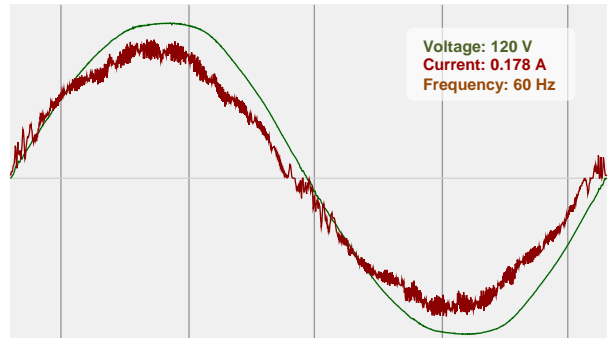


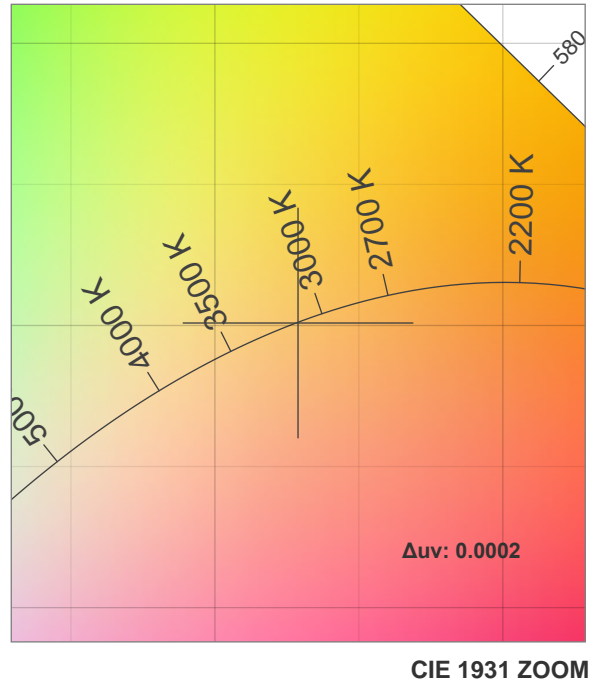
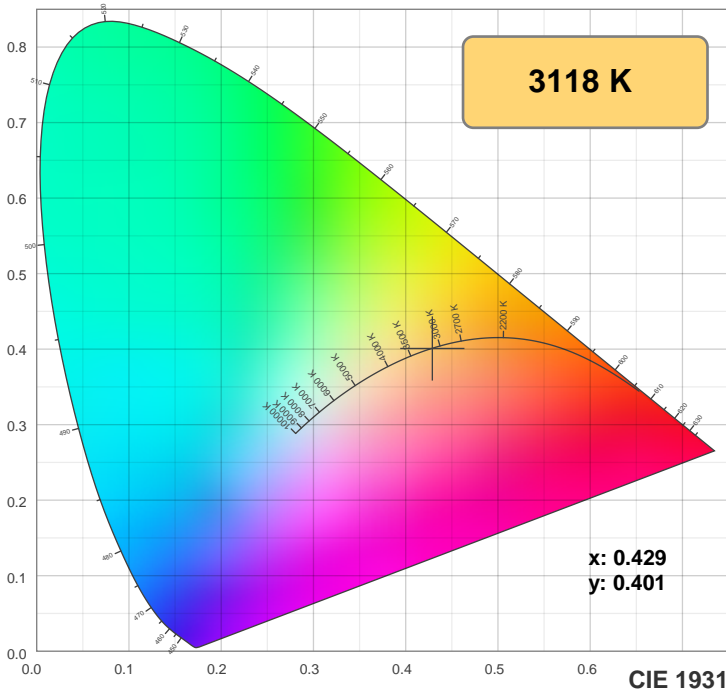
CIE 1931
x: 0.429
y: 0.401

Spectra

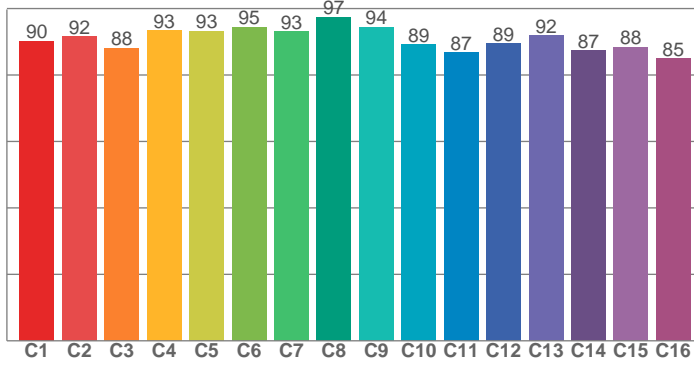


Power

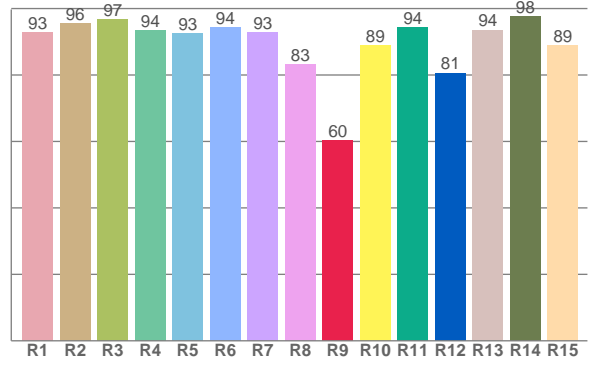




TM30: 90.9



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
92.9	95.5	96.8	93.5	92.6	94.3	92.9	83.1	60.2	88.8	94.4	80.7	93.6	97.6	89.0

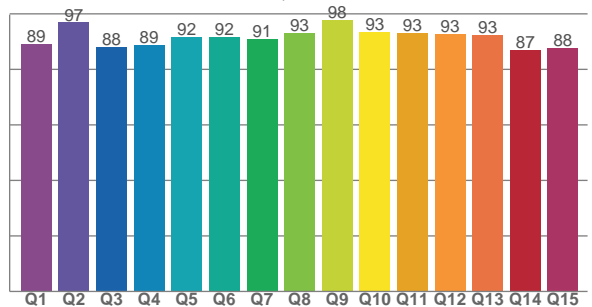
TM30 C values, 16 binned values out of total of 99 C values

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

CQS: 91.0



Color parameters

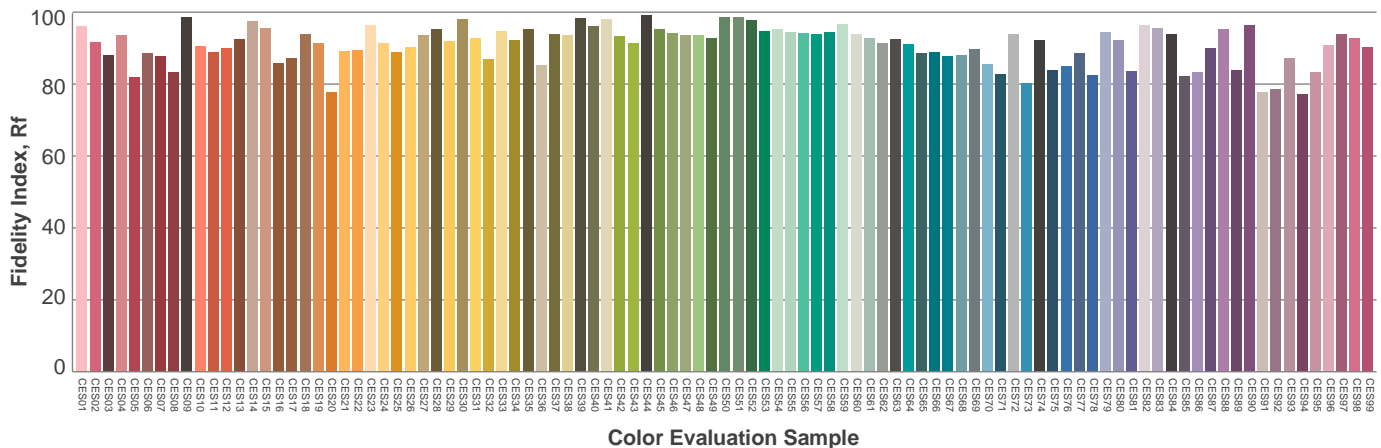
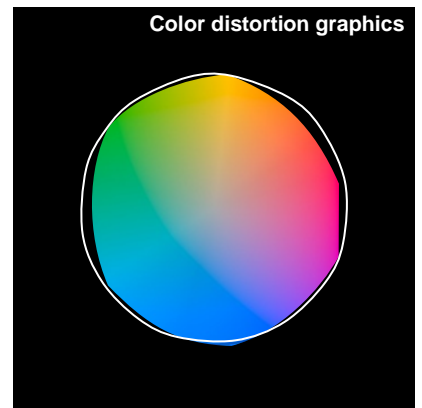
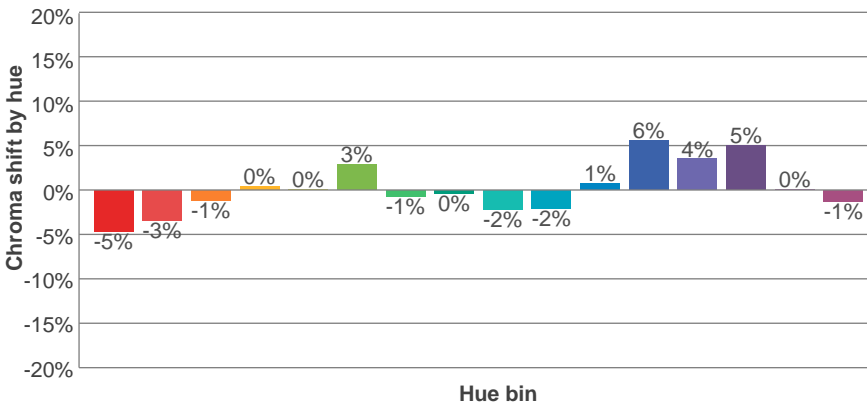
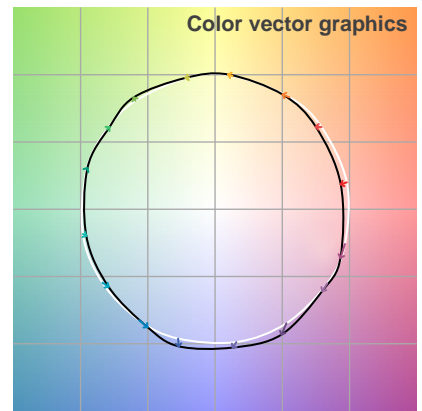
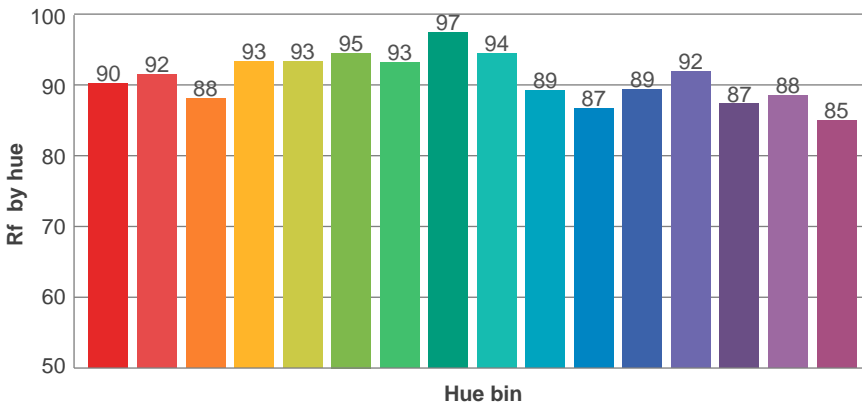
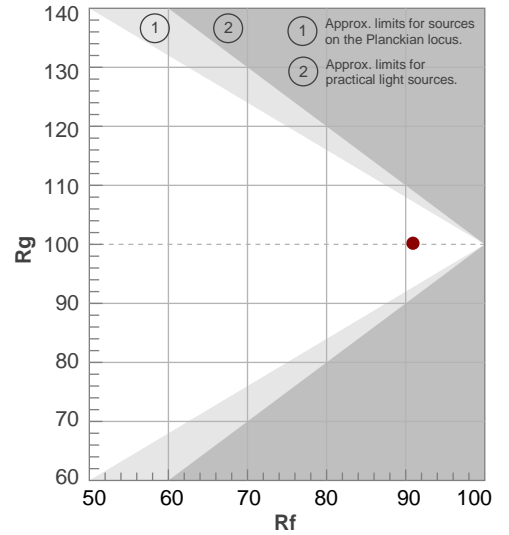
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3118 K	92.7	60.2	90.9	100.2	91.0	0.429	0.401	0.247	0.346	0.0002

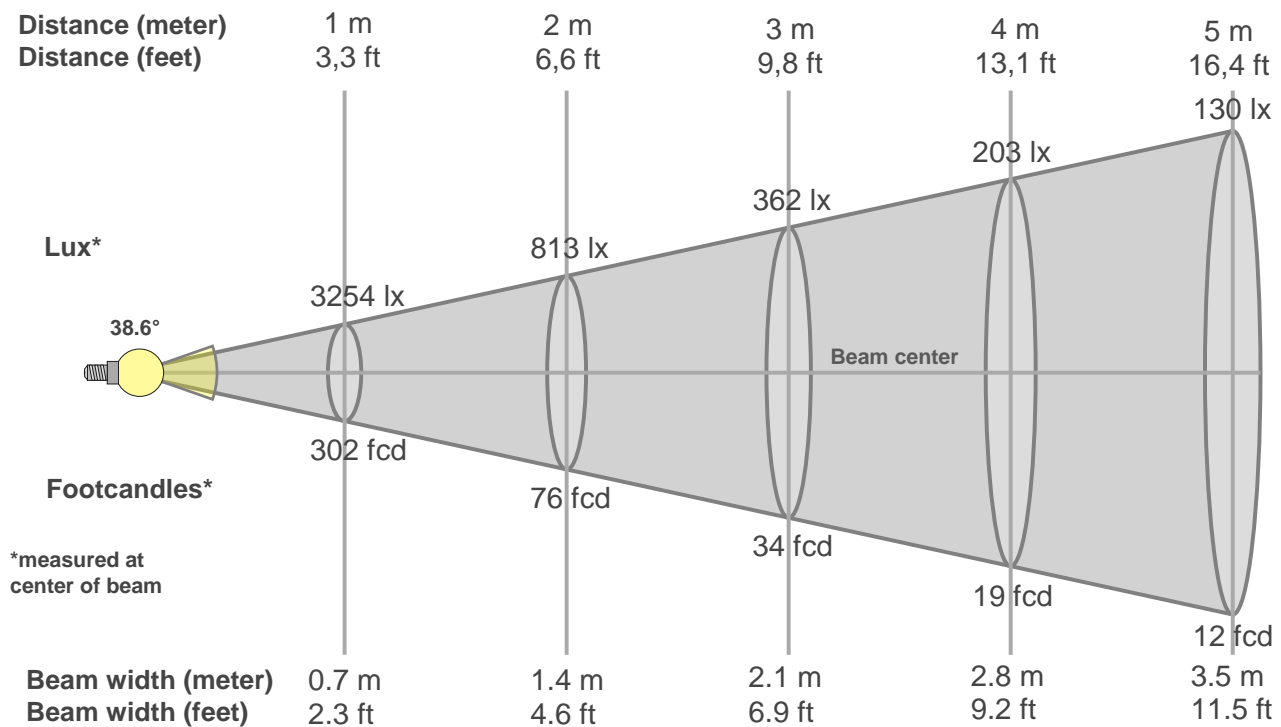
TM30 details

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	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 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
3254lx	813lx	362lx	203lx	130lx	90lx	66lx	51lx	40lx	33lx	27lx	23lx	19lx	17lx	14lx	13lx	11lx	10lx	9lx	8lx
302.3fcd	75.6fcd	33.6fcd	18.9fcd	12.1fcd	8.4fcd	6.2fcd	4.7fcd	3.7fcd	3fcd	2.5fcd	2.1fcd	1.8fcd	1.5fcd	1.3fcd	1.2fcd	1fcd	0.9fcd	0.8fcd	0.8fcd

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°
3254	3228	3167	3061	2915	2730	2521	2287	2040	1784	1528	1284	1052	826	625	455	317	214	143	97
100%	99%	97%	94%	90%	84%	77%	70%	63%	55%	47%	39%	32%	25%	19%	14%	10%	7%	4%	3%

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°
3254	3233	3168	3061	2918	2740	2534	2303	2053	1795	1547	1301	1073	859	664	496	358	251	174	122
100%	99%	97%	94%	90%	84%	78%	71%	63%	55%	48%	40%	33%	26%	20%	15%	11%	8%	5%	4%

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°
3254	3229	3155	3052	2907	2728	2521	2289	2032	1784	1531	1286	1054	837	636	460	317	210	139	95
100%	99%	97%	94%	89%	84%	77%	70%	62%	55%	47%	40%	32%	26%	20%	14%	10%	6%	4%	3%

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°
3254	3232	3163	3055	2914	2737	2528	2303	2052	1797	1549	1303	1067	846	649	478	342	235	164	117
100%	99%	97%	94%	90%	84%	78%	71%	63%	55%	48%	40%	33%	26%	20%	15%	11%	7%	5%	4%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
38.6°	64.3°	79.3°	1.0%	1.0%

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