

Light efficiency:



Light quality:



Color temperature:



Output: 1100 lm

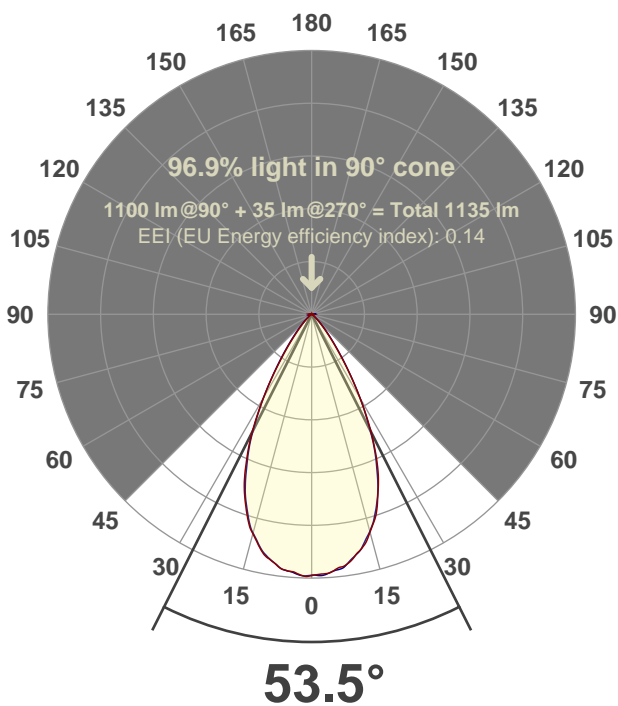
Peak: 1494 cd

Power: 14.6 W

PF: 0.99



Beam angle



Test number:

GRO-CZ14-WF-RD-91A

Luminaire Model:

GRO-CZ14-WF-RD-91A

Date and time:

6/14/2017 2:25:28 PM

LUM: 1100

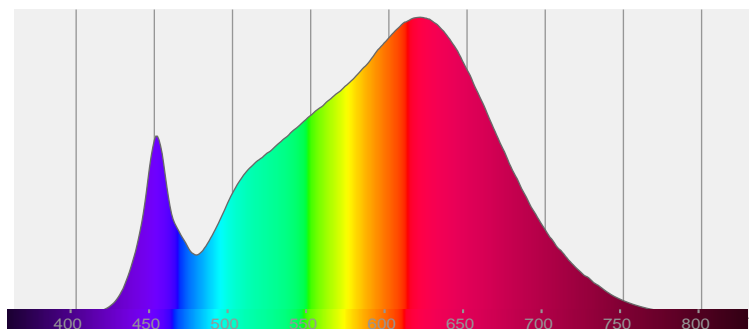
CIE 1931

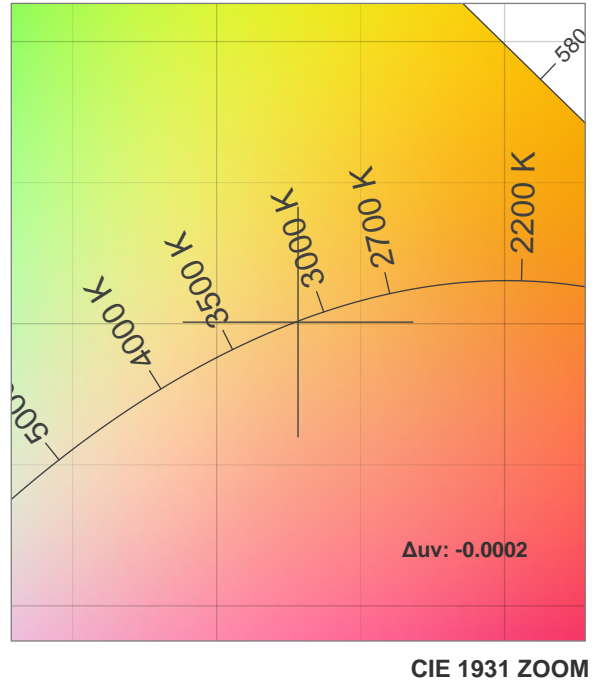
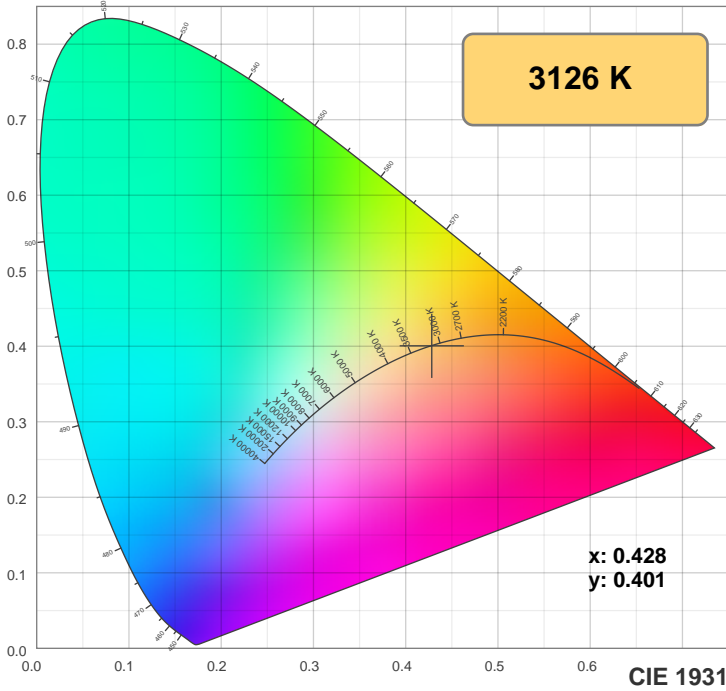
x: 0.428

y: 0.401

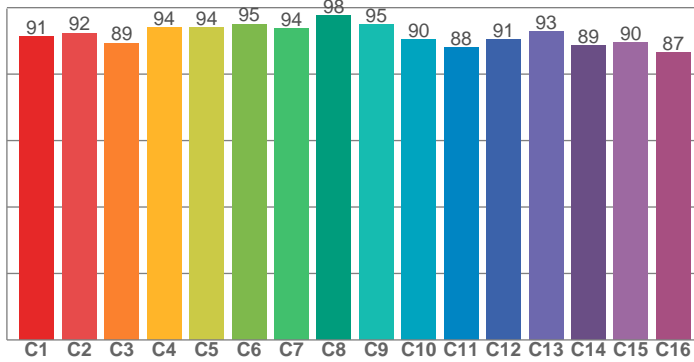


Spectra

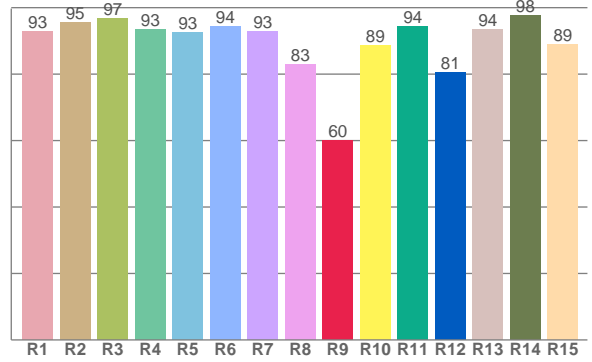




TM30: 91.8



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

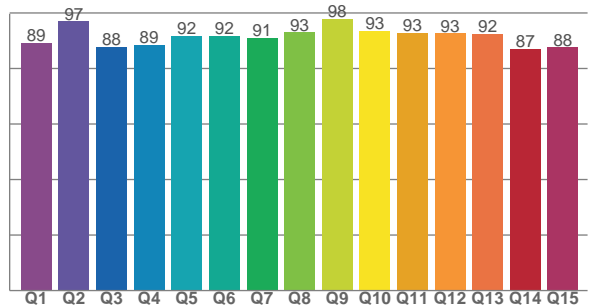
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.2	92.3	89.3	94.0	94.0	95.1	93.8	97.7	95.0	90.4	88.1	90.5	92.8	88.6	89.6	86.5

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



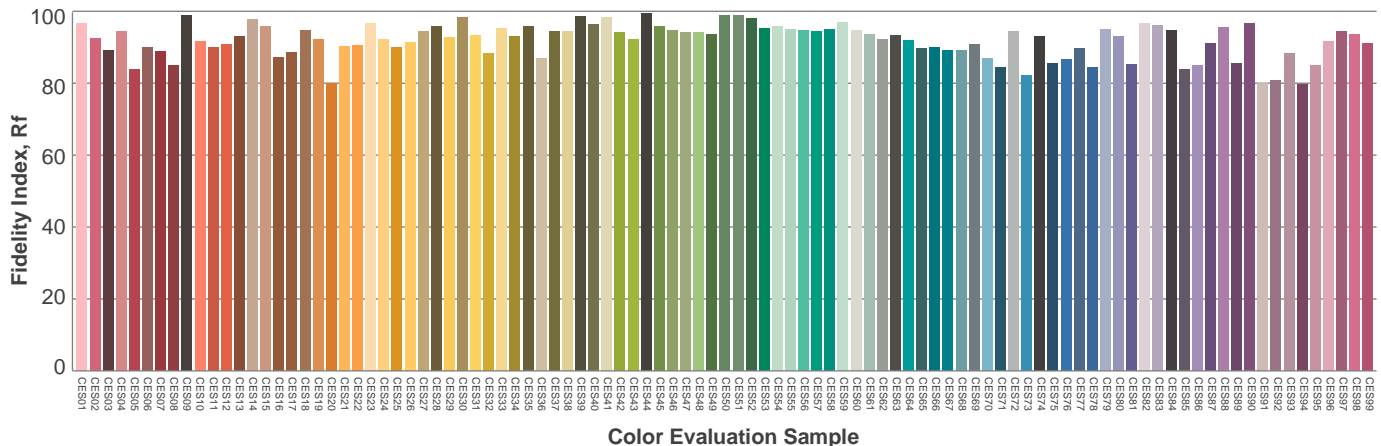
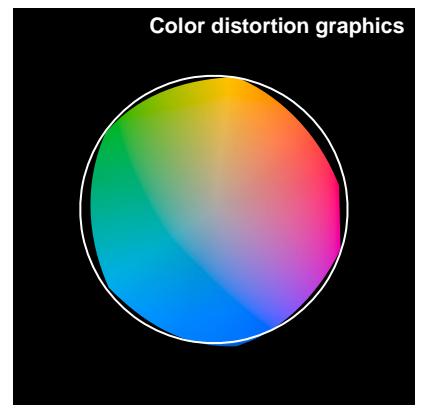
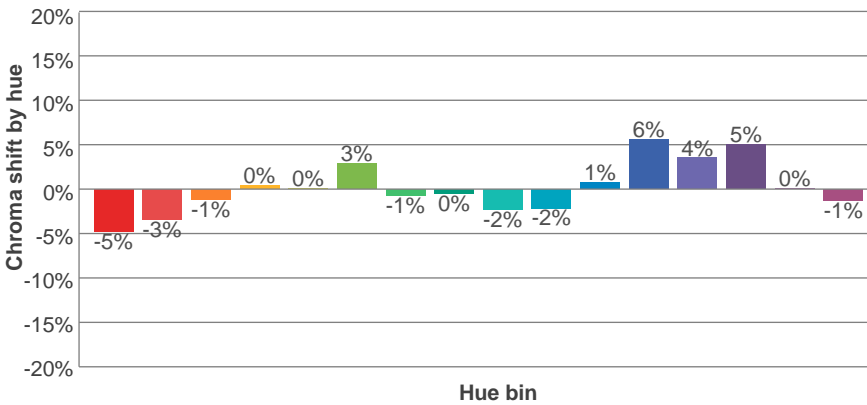
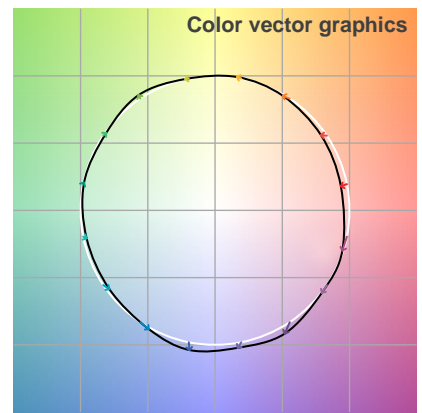
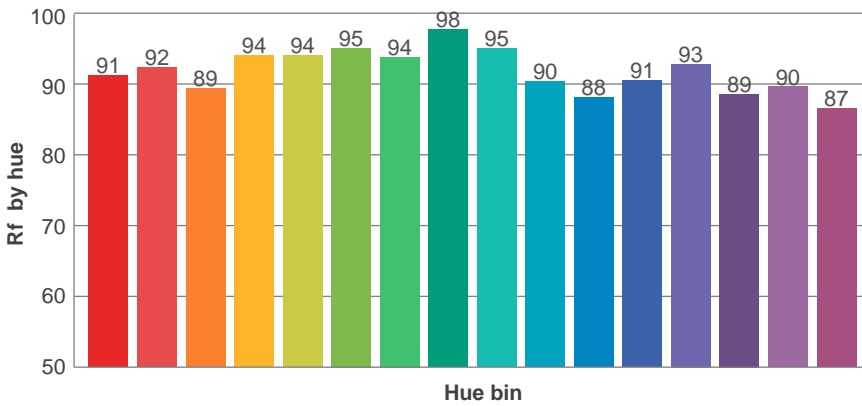
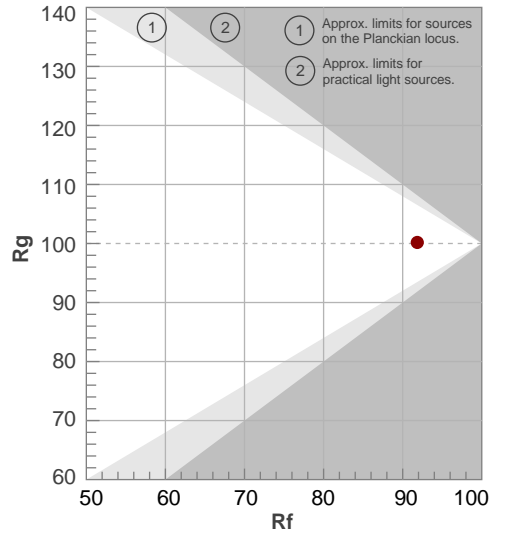
Color parameters

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	91.8	100.2	90.9	0.428	0.401	0.246	0.346	-0.0002

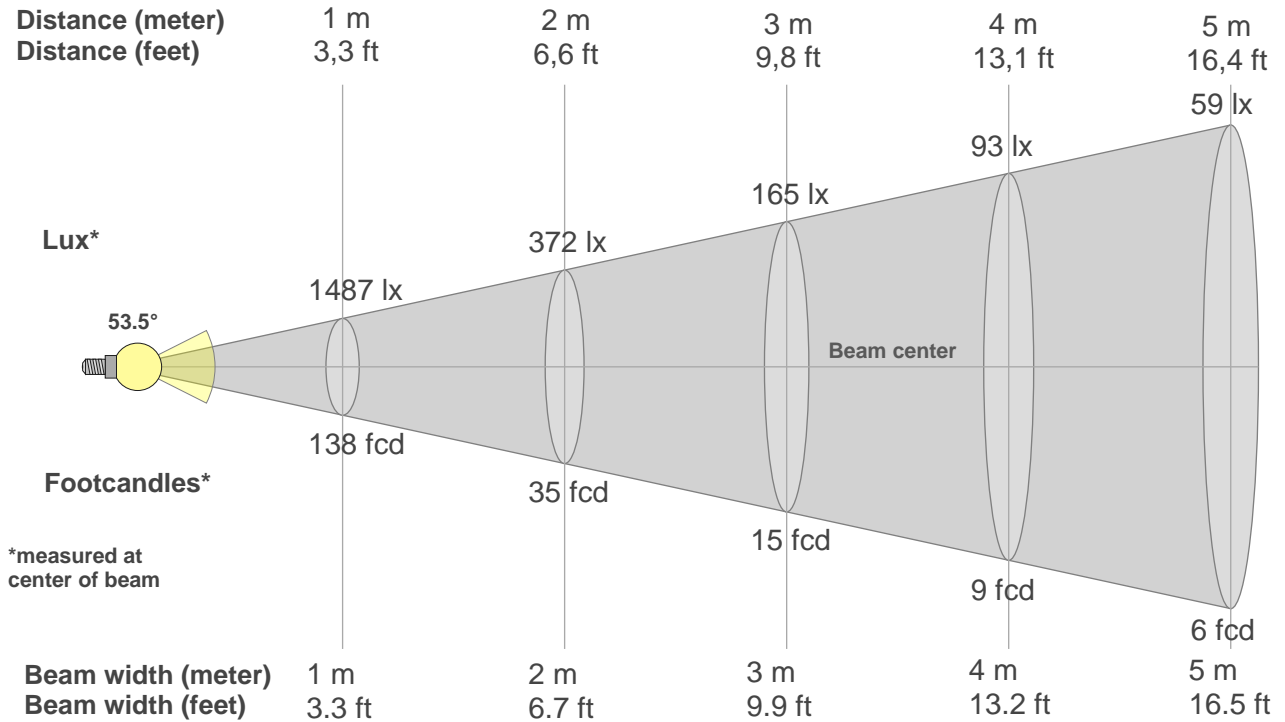
Rf 91.8
Fidelity index Rf

Rg 100.2
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	-1%
2	92	-3%	3%
3	89	-1%	5%
4	94	0%	3%
5	94	0%	3%
6	95	3%	0%
7	94	-1%	-3%
8	98	0%	-1%
9	95	-2%	2%
10	90	-2%	5%
11	88	1%	8%
12	91	6%	2%
13	93	4%	-3%
14	89	5%	-8%
15	90	0%	-7%
16	87	-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
1487lx	372lx	165lx	93lx	59lx	41lx	30lx	23lx	18lx	15lx	12lx	10lx	9lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx
138.2fcd	34.5fcd	15.4fcd	8.6fcd	5.5fcd	3.8fcd	2.8fcd	2.2fcd	1.7fcd	1.4fcd	1.1fcd	1fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd

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°
1487	1481	1476	1453	1438	1403	1366	1318	1254	1191	1102	1015	913	797	676	551	437	332	247	182
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°
1487	1489	1475	1462	1439	1401	1363	1306	1250	1178	1098	1002	899	787	666	551	438	341	258	193
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°
1487	1490	1471	1465	1442	1413	1376	1320	1269	1194	1112	1023	912	800	674	548	430	324	241	175
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°
1487	1490	1476	1465	1439	1409	1371	1315	1262	1183	1103	1003	897	788	663	546	433	338	258	194
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°	99.4%	96.9%

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