

Light efficiency:



Light quality:



Color temperature:



Output: 1172 lm

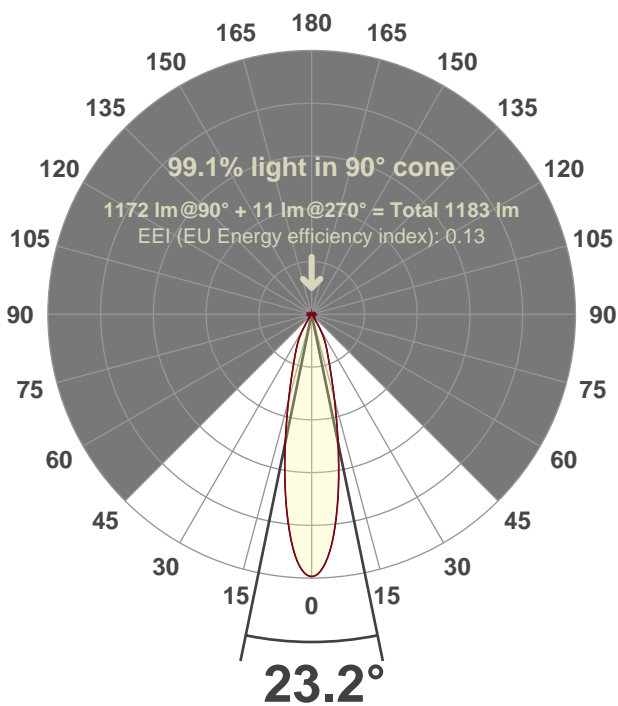
Peak: 4896 cd

Power: 14.6 W

PF: 0.99



Beam angle



Test number:

GRO-CZ14-NF-RD

Luminaire Model:

GRO-CZ14-NF-RD

Date and time:

6/14/2017 5:11:14 PM

LUM: 1172

CIE 1931

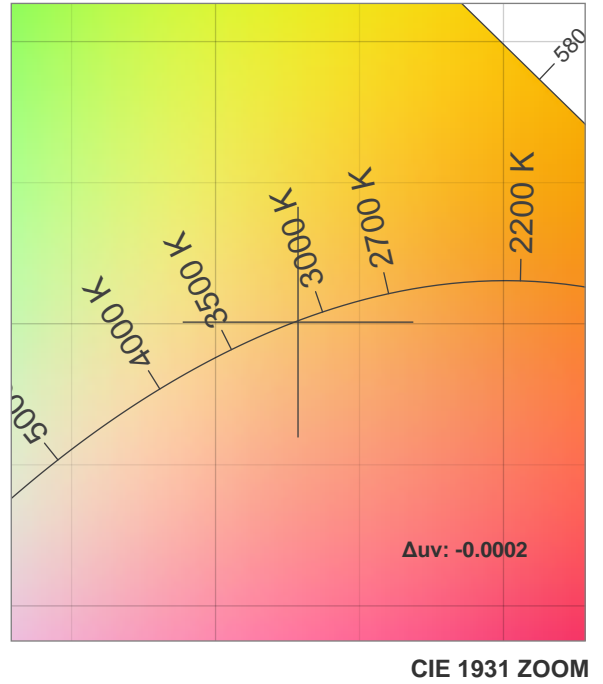
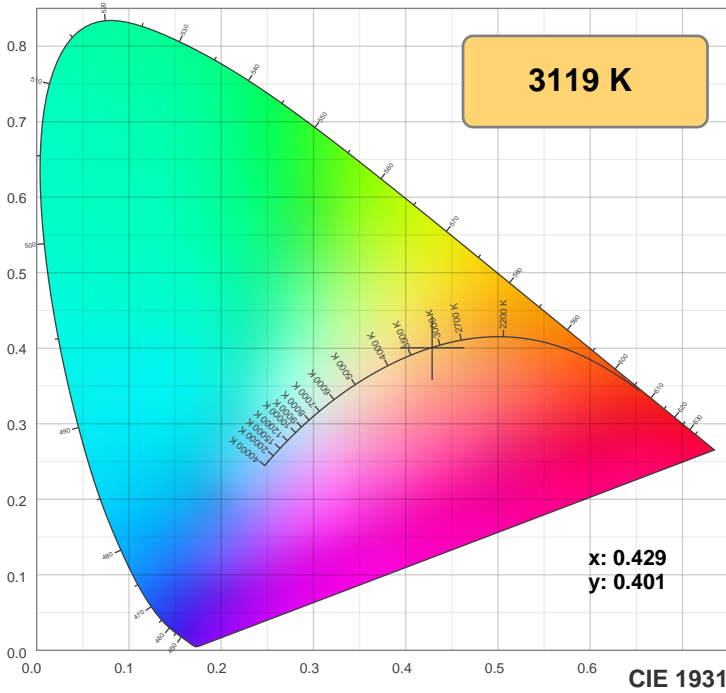
x: 0.429

y: 0.401

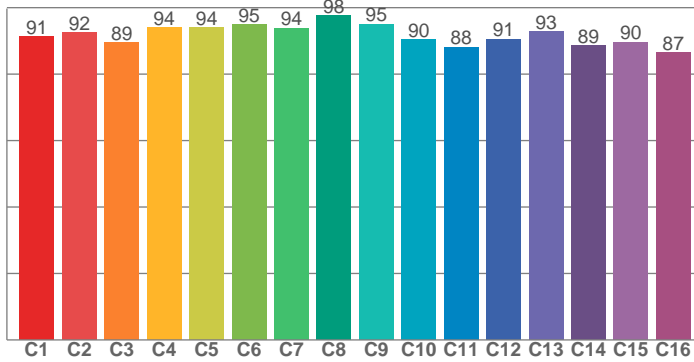


Spectra

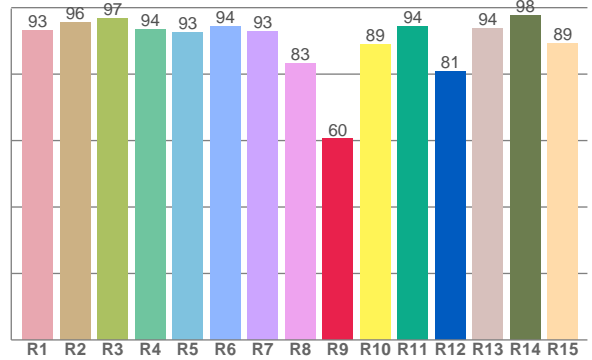




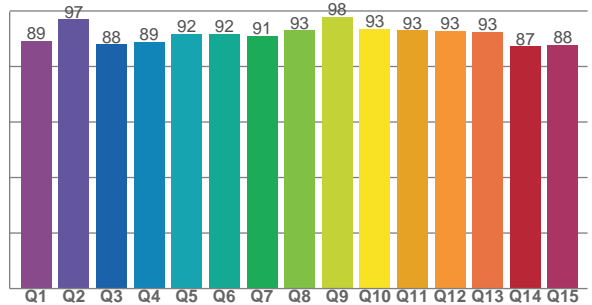
TM30: 91.9



CRI: 92.8 (R1-R8)



CQS: 91.0



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	95.6	96.8	93.6	92.7	94.4	92.9	83.2	60.5	89.0	94.4	80.8	93.7	97.7	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
91.3	92.4	89.4	94.1	94.0	95.0	93.9	97.7	95.1	90.5	88.2	90.5	92.8	88.6	89.7	86.6

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	92.6	87.2	87.7

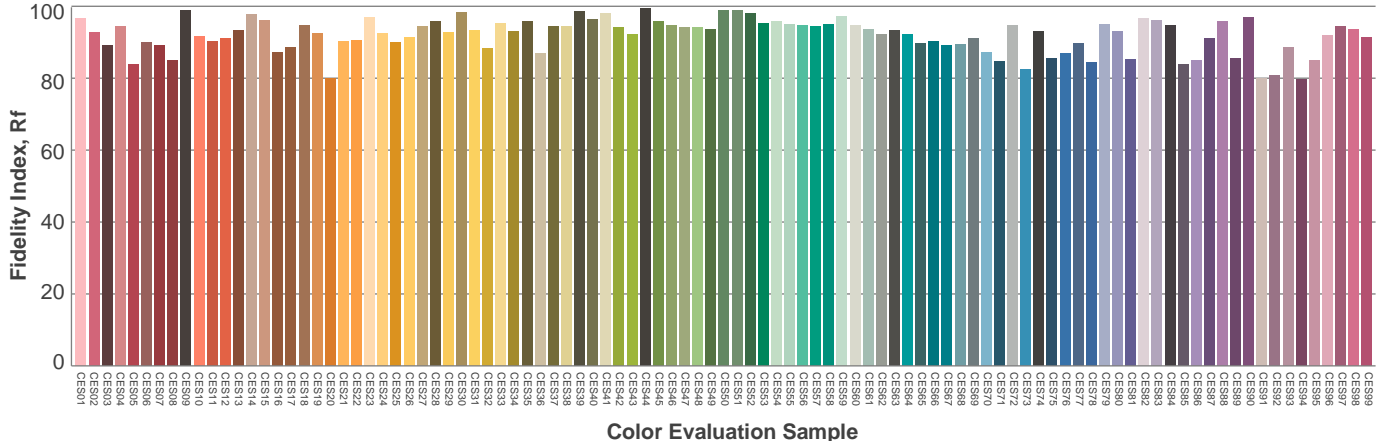
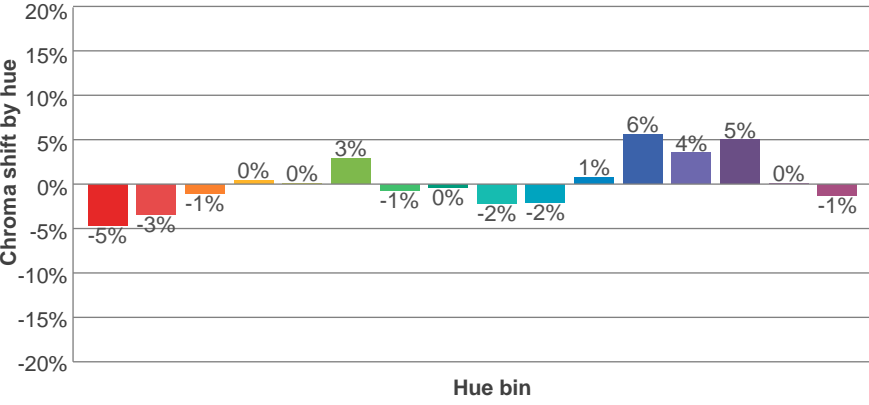
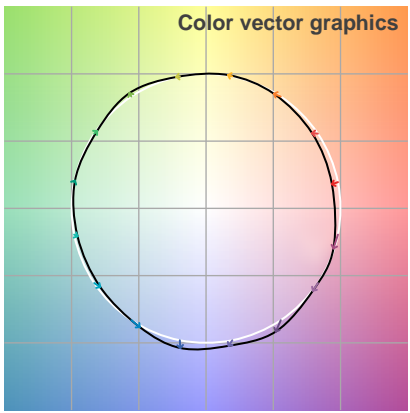
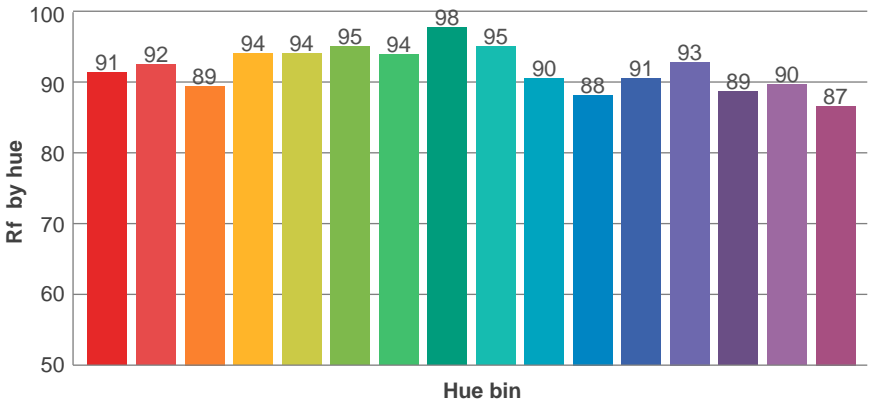
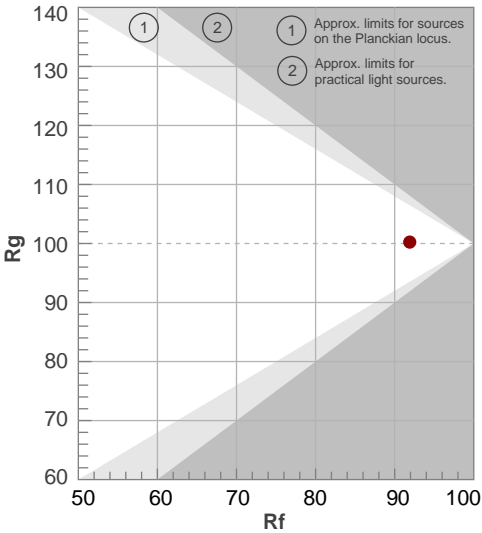
Color parameters

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
3119 K	92.8	60.5	91.9	100.2	91.0	0.429	0.401	0.247	0.346	-0.0002

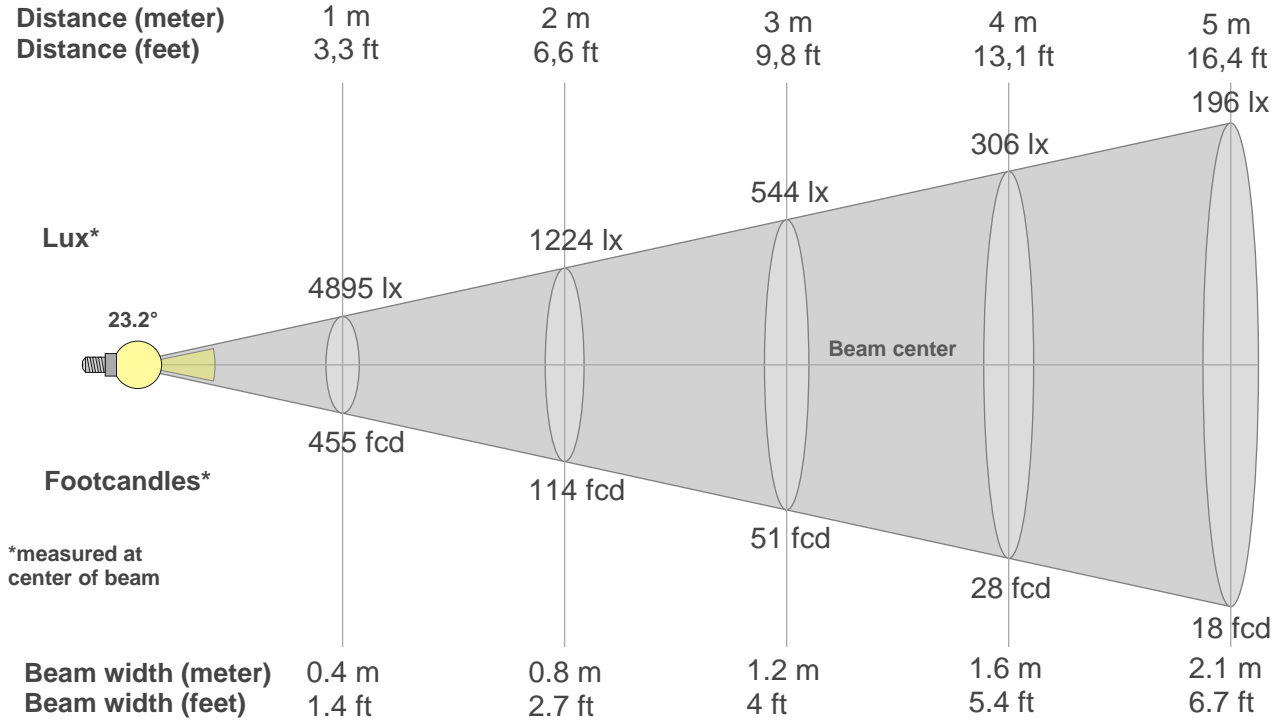
Rf 91.9
Fidelity index Rf

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
4895lx	1224lx	544lx	306lx	196lx	136lx	100lx	76lx	60lx	49lx	40lx	34lx	29lx	25lx	22lx	19lx	17lx	15lx	14lx	12lx
454.8fcd	113.7fcd	50.5fcd	28.4fcd	18.2fcd	12.6fcd	9.3fcd	7.1fcd	5.6fcd	4.5fcd	3.8fcd	3.2fcd	2.7fcd	2.3fcd	2fcd	1.8fcd	1.6fcd	1.4fcd	1.3fcd	1.1fcd

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°
4895	4794	4510	4069	3516	2914	2344	1846	1456	1152	940	786	667	553	426	294	170	42	29	23
100%	98%	92%	83%	72%	60%	48%	38%	30%	24%	19%	16%	14%	11%	9%	6%	3%	1%	1%	0%

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°
4895	4796	4504	4050	3494	2900	2341	1851	1464	1170	954	799	676	566	445	313	185	46	28	21
100%	98%	92%	83%	71%	59%	48%	38%	30%	24%	19%	16%	14%	12%	9%	6%	4%	1%	1%	0%

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°
4895	4790	4493	4022	3469	2896	2344	1877	1493	1209	993	835	707	596	477	344	215	96	30	24
100%	98%	92%	82%	71%	59%	48%	38%	30%	25%	20%	17%	14%	12%	10%	7%	4%	2%	1%	0%

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°
4895	4797	4501	4036	3476	2890	2341	1865	1484	1189	975	817	689	576	447	312	188	86	31	24
100%	98%	92%	82%	71%	59%	48%	38%	30%	24%	20%	17%	14%	12%	9%	6%	4%	2%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23.2°	54.8°	66.1°	99.7%	99.1%

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