

Light efficiency:



Light quality:



Color temperature:



Output: 1208 lm

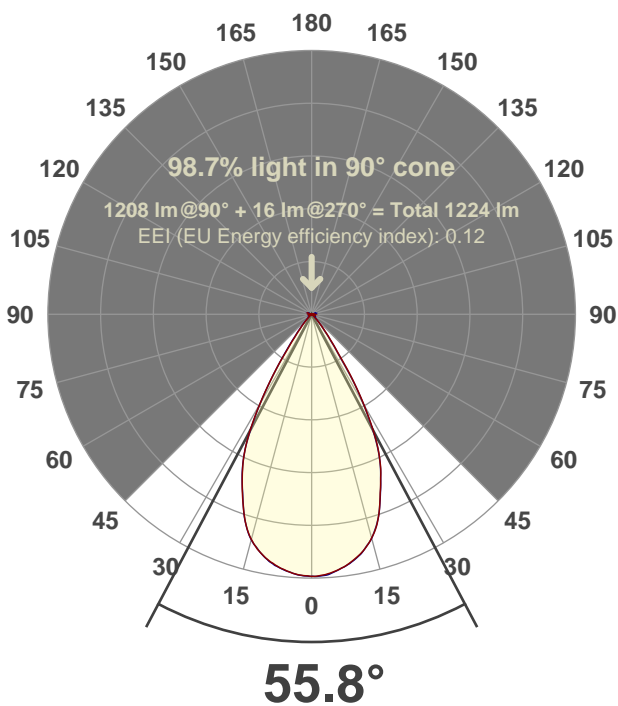
Peak: 1642 cd

Power: 14.6 W

PF: 0.99



Beam angle



Test number:

GRO-CZ14-WF-RD

Luminaire Model:

GRO-CZ14-WF-RD

Date and time:

6/14/2017 2:30:22 PM

LUM: 1208

CIE 1931

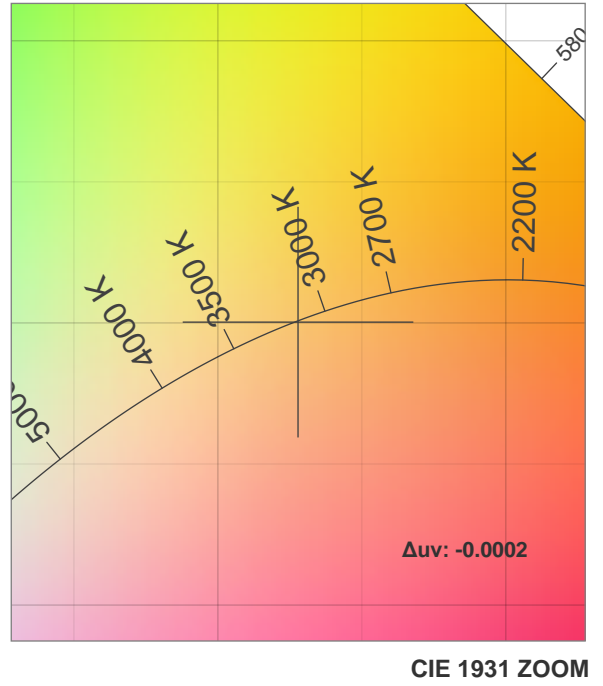
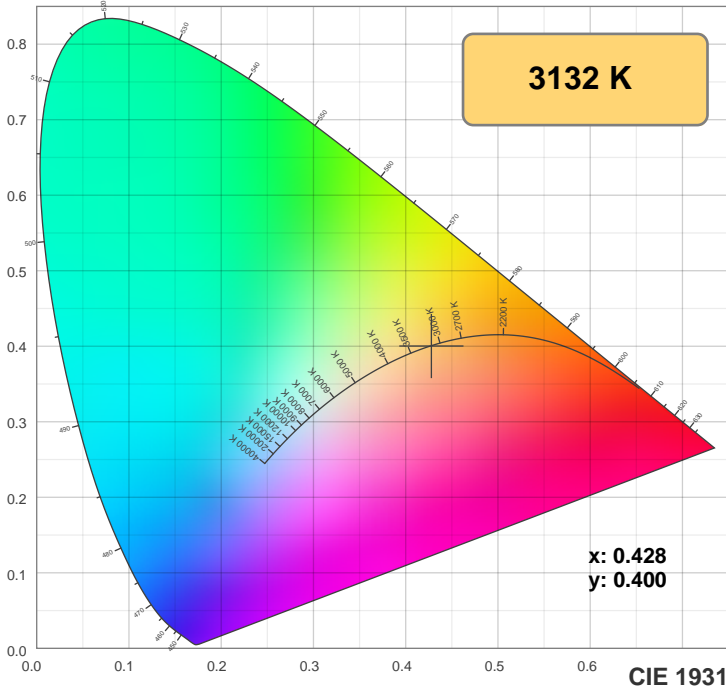
x: 0.428

y: 0.400

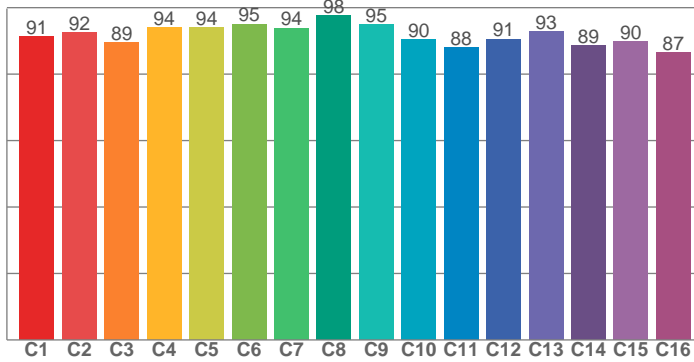


Spectra

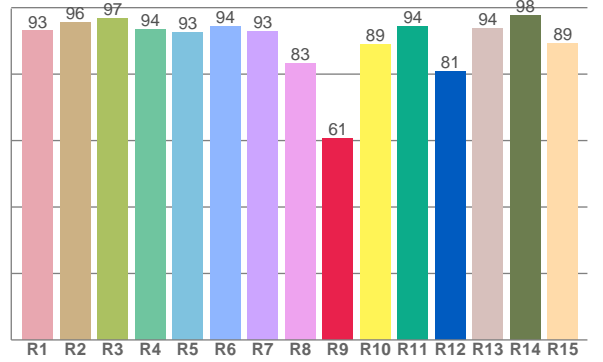




TM30: 91.9



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

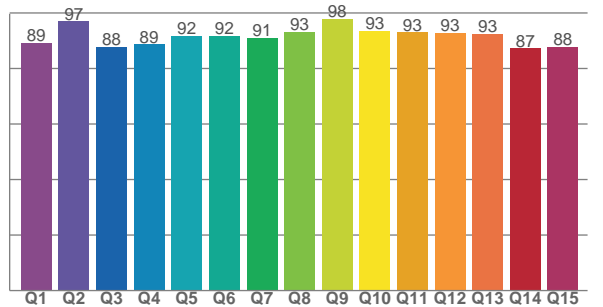
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.3	92.4	89.4	94.0	94.0	95.0	93.9	97.7	95.0	90.5	88.1	90.5	92.9	88.7	89.7	86.6

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



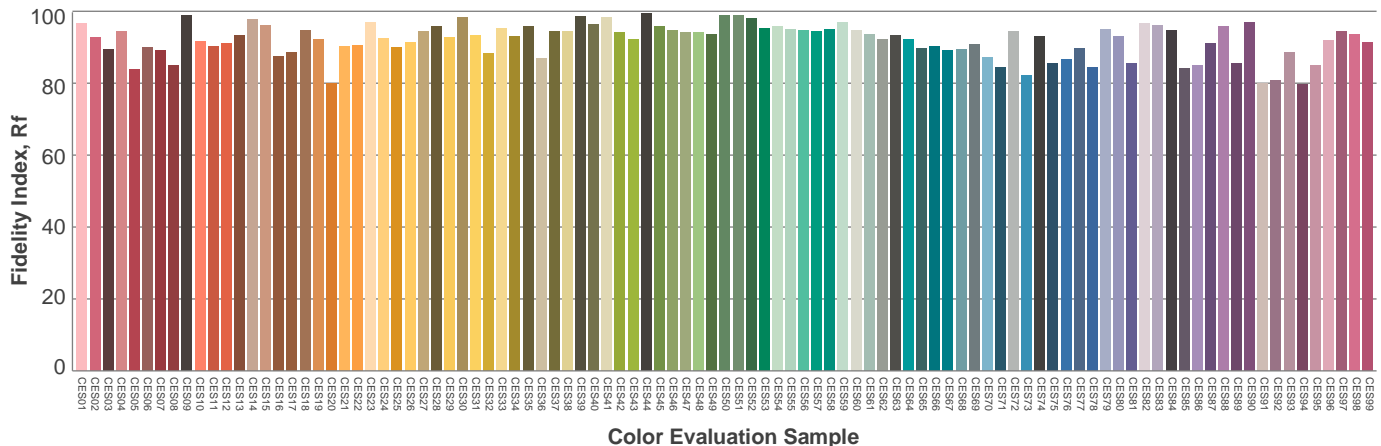
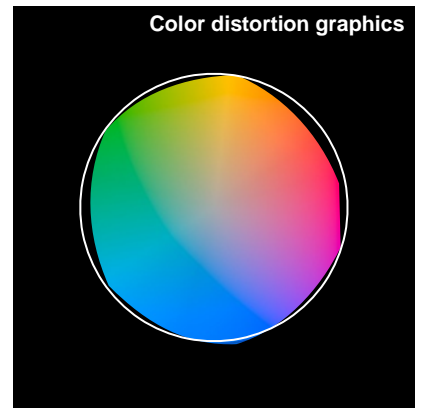
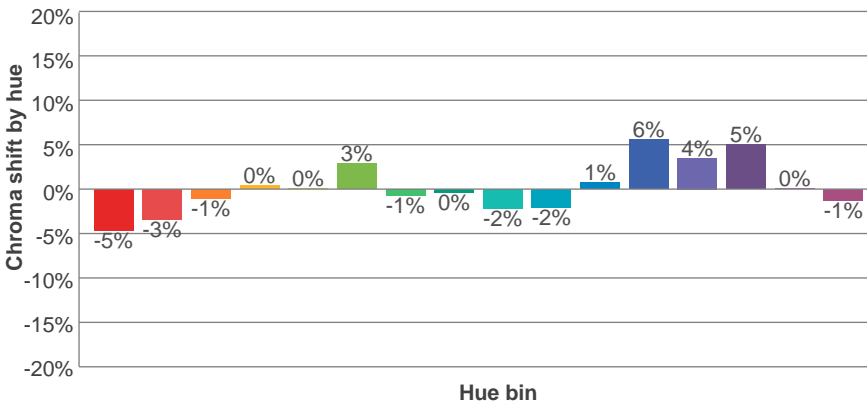
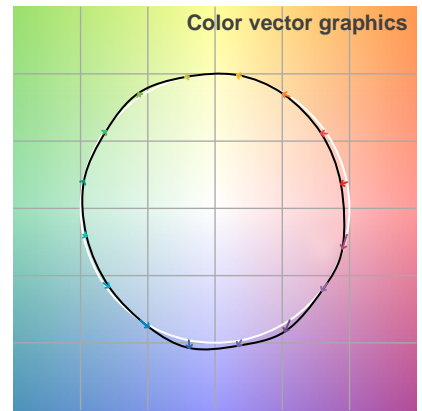
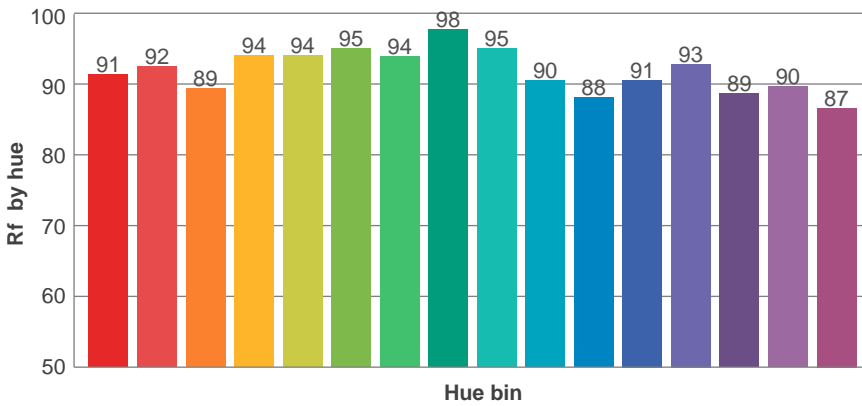
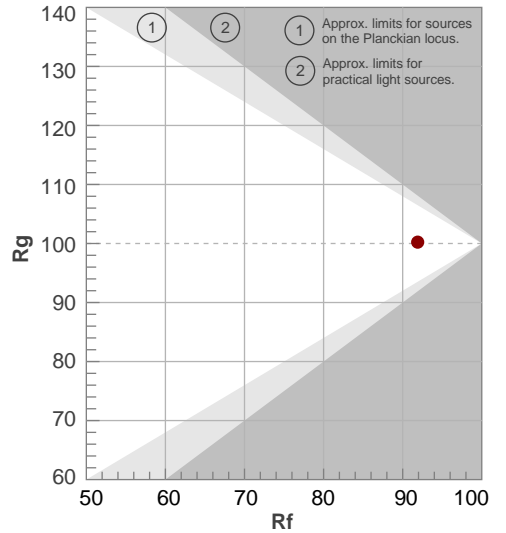
Color parameters

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	91.9	100.2	91.0	0.428	0.400	0.246	0.346	-0.0002

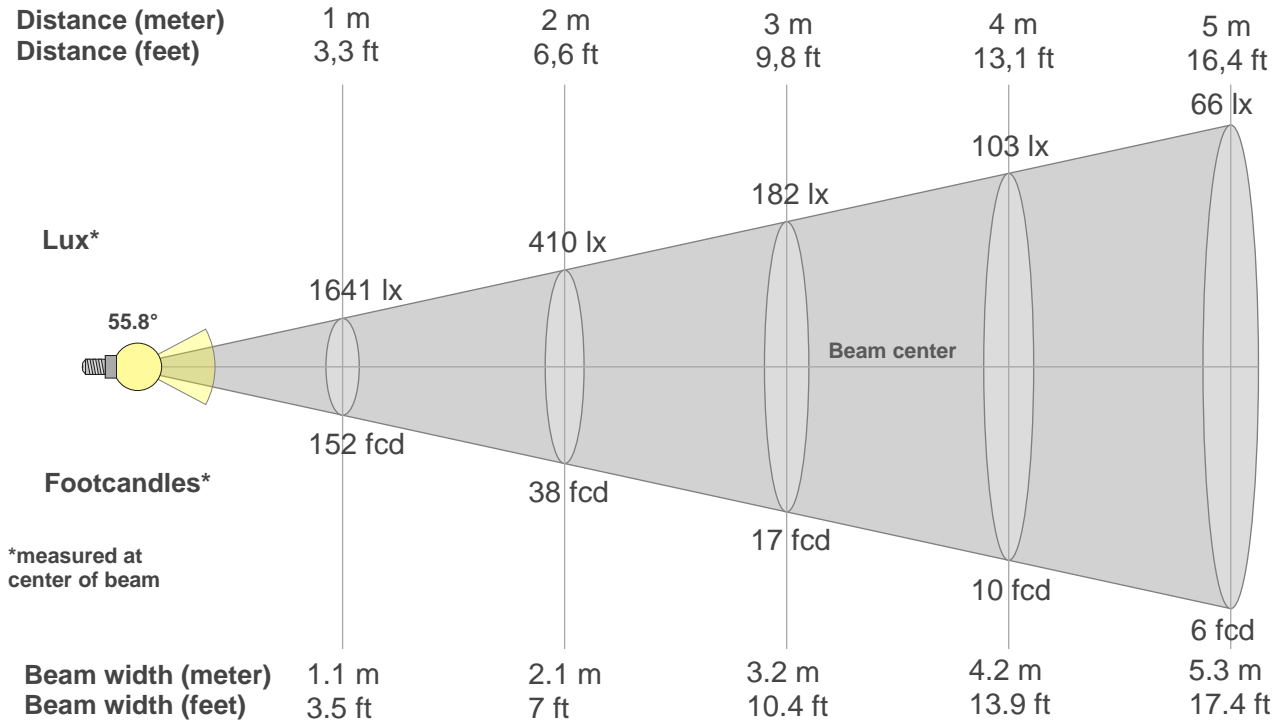
Rf 91.9
Fidelity index Rf

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
1641lx	410lx	182lx	103lx	66lx	46lx	33lx	26lx	20lx	16lx	14lx	11lx	10lx	8lx	7lx	6lx	6lx	5lx	5lx	4lx
152.5fcd	38.1fcd	16.9fcd	9.5fcd	6.1fcd	4.2fcd	3.1fcd	2.4fcd	1.9fcd	1.5fcd	1.3fcd	1.1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd	0.4fcd

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°
1641	1637	1626	1609	1586	1556	1522	1478	1422	1347	1250	1153	1064	957	817	656	491	316	216	148
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°
1641	1640	1631	1609	1587	1559	1524	1478	1419	1346	1251	1155	1061	952	808	645	474	293	196	130
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°
1641	1637	1628	1610	1590	1564	1529	1487	1430	1353	1258	1161	1064	957	816	649	481	319	202	134
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°
1641	1638	1628	1612	1593	1566	1529	1487	1431	1353	1255	1160	1067	956	807	642	474	327	219	147
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°	99.7%	98.7%

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