

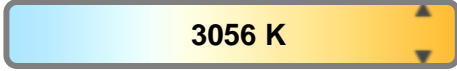
Light efficiency:



Light quality:



Color temperature:

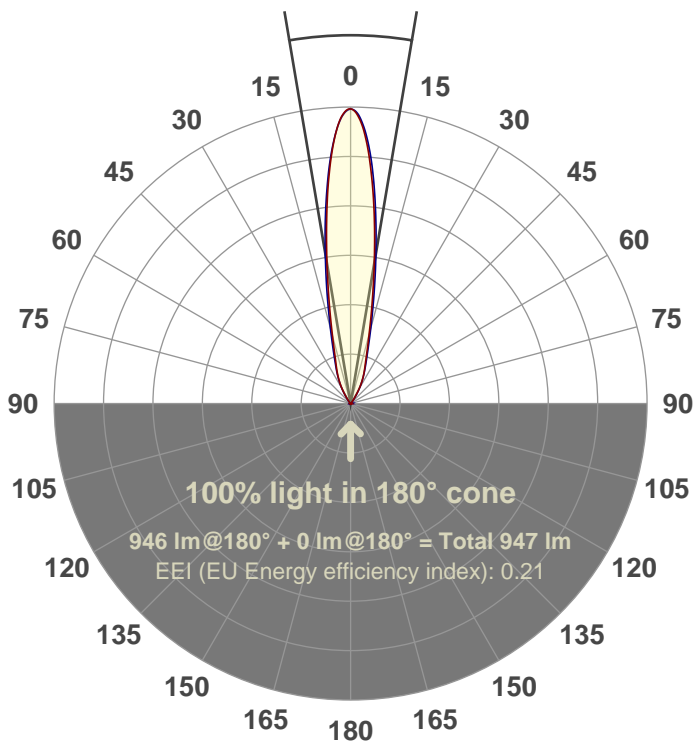


Output: 946 lm
Peak: 4615 cd
Power: 15.0 W
PF: 0.98



Beam angle

19.2°



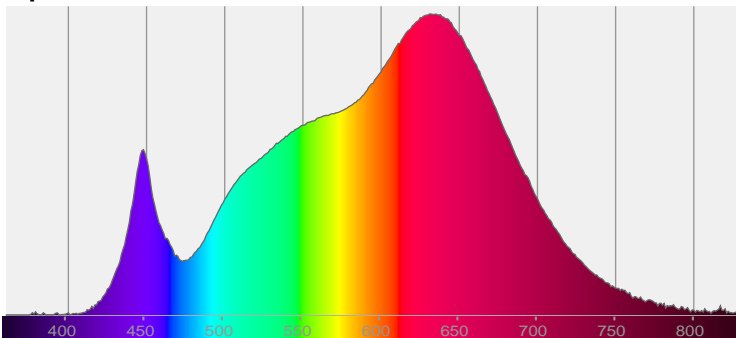
Test number:
GRO-AD-SP-RD-91A
Luminaire Model:
GRO-AD-SP-RD-91A
Date and time:
8/10/2017 1:32:09 PM
Description:

LUM: 946
PPF: 17.7

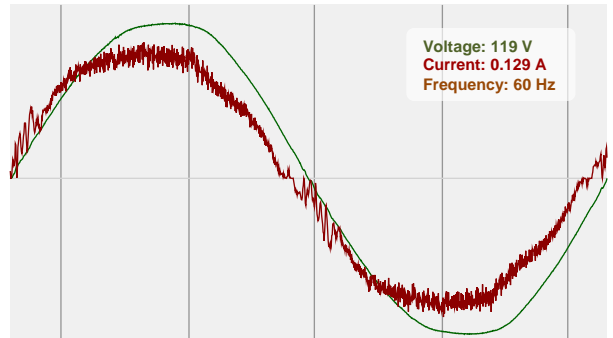


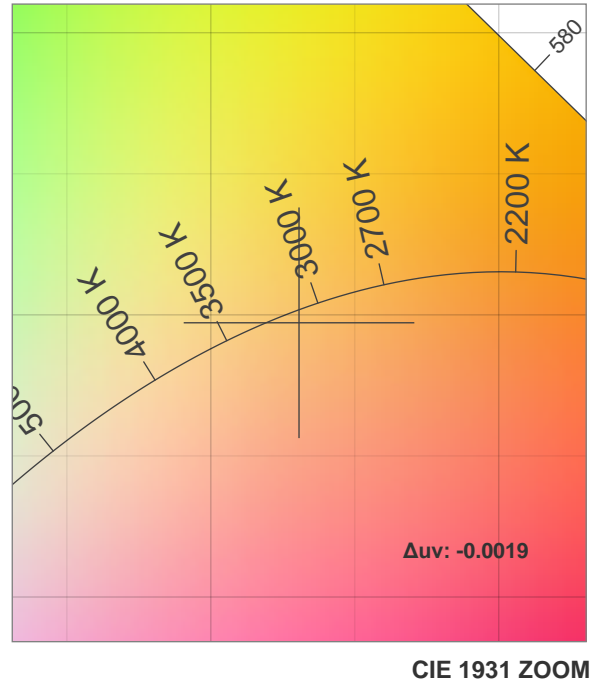
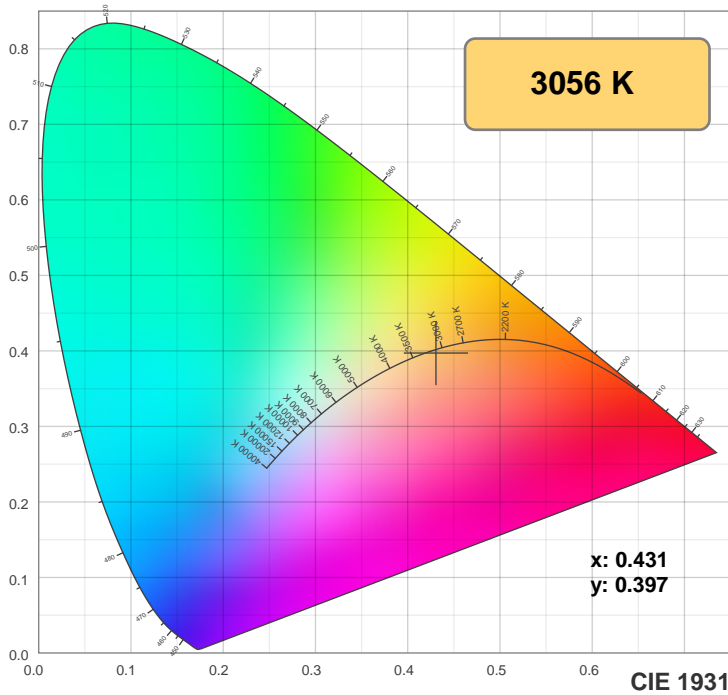
CIE 1931
x: 0.431
y: 0.397

Spectra

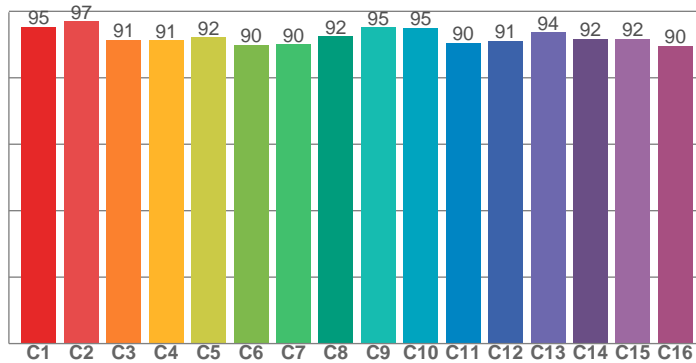


Power

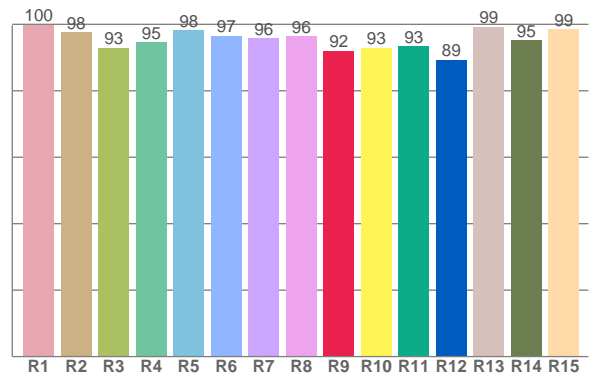




TM30: 92.7



CRI: 96.5 (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
99.9	97.6	93.0	94.6	98.3	96.5	95.8	96.5	92.0	92.9	93.4	89.3	99.3	95.1	98.6

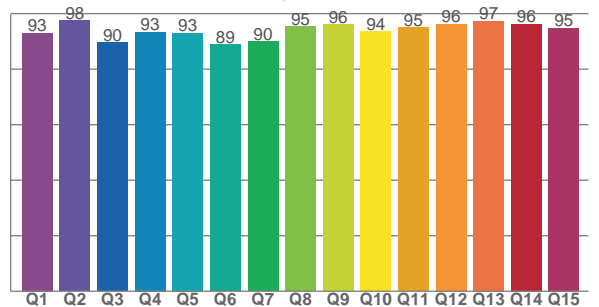
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95.3	97.0	91.5	91.3	92.1	89.8	90.0	92.4	95.1	95.0	90.5	91.2	93.7	91.8	91.7	89.6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93.1	97.5	89.6	93.3	93.0	88.8	89.9	95.3	96.1	93.6	95.0	96.3	97.4	96.2	94.8

CQS: 93.3



Color parameters

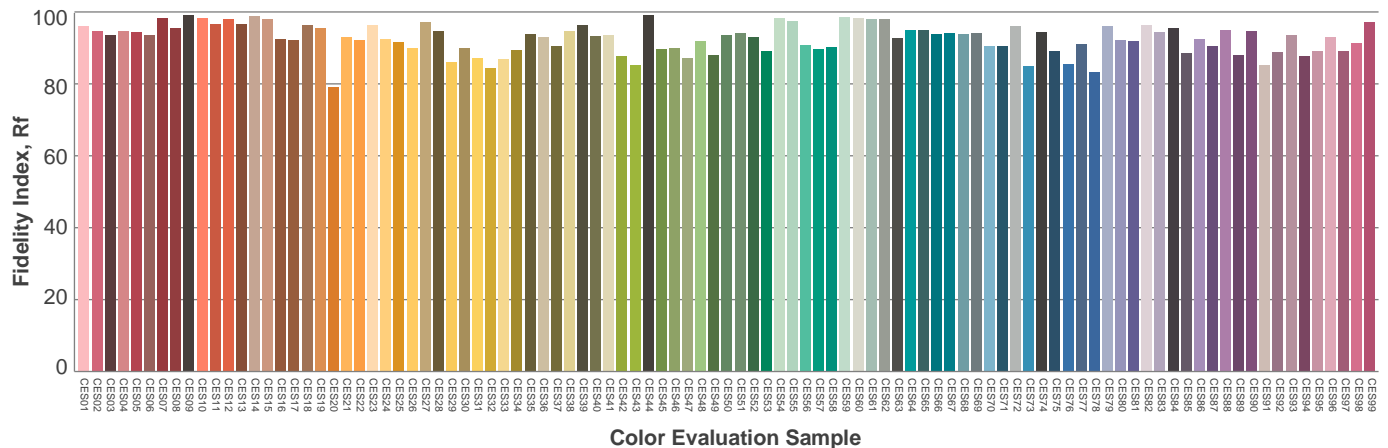
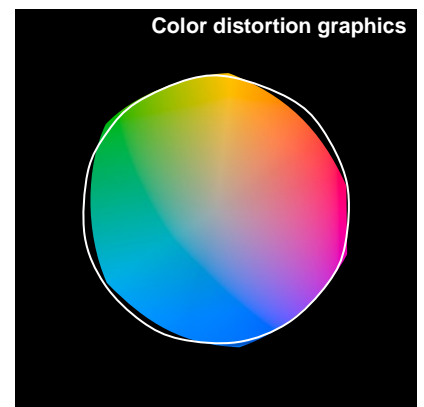
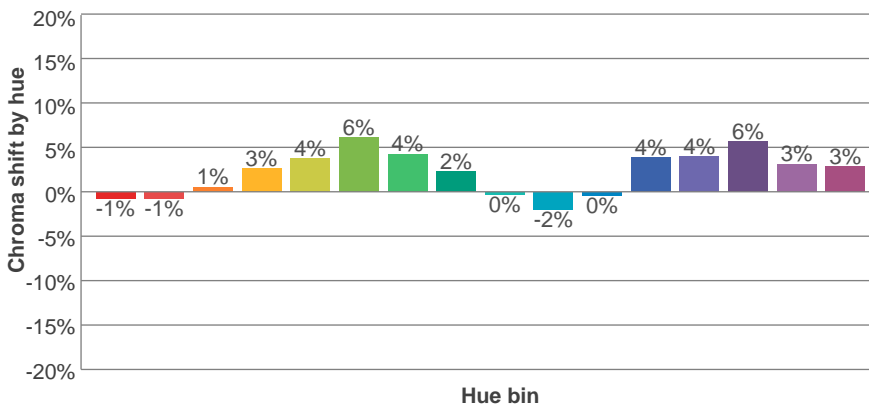
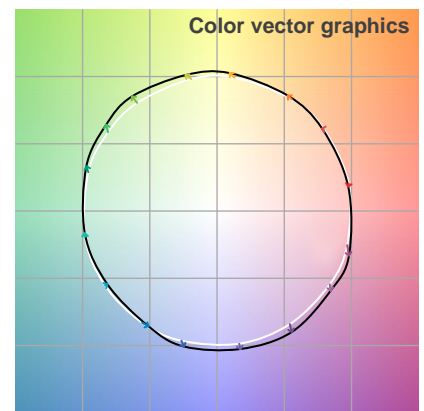
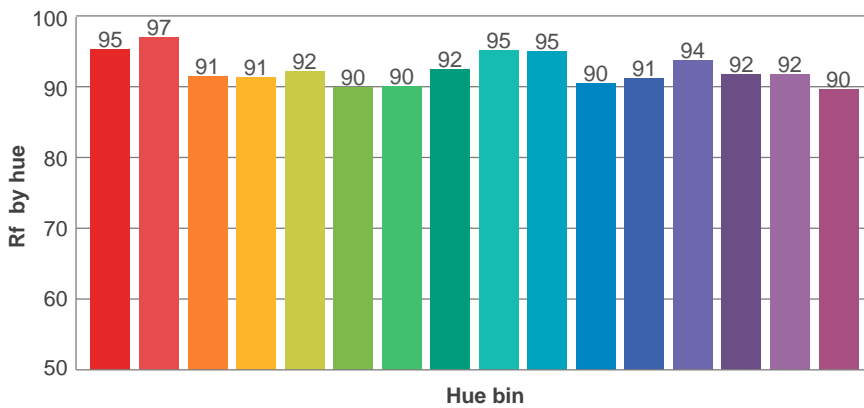
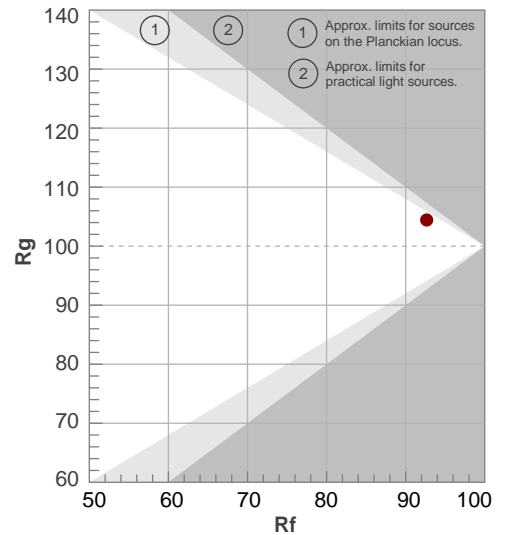
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3056 K	96.5	92.0	92.7	104.4	93.3	0.431	0.397	0.249	0.345	-0.0019

TM30 details

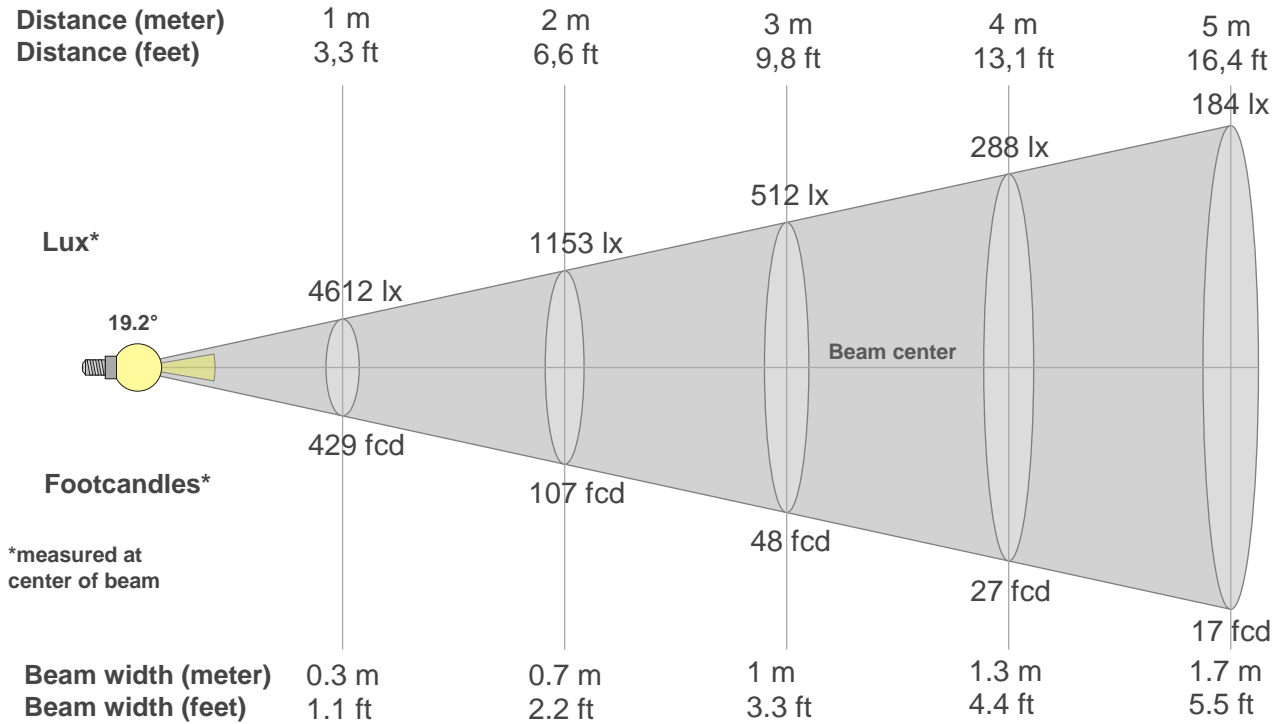
Rf 92.7
Fidelity index Rf

Rg 104.4
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	-2%
2	97	-1%	1%
3	91	1%	4%
4	91	3%	4%
5	92	4%	4%
6	90	6%	1%
7	90	4%	-4%
8	92	2%	-4%
9	95	0%	-2%
10	95	-2%	0%
11	90	0%	5%
12	91	4%	3%
13	94	4%	0%
14	92	6%	-2%
15	92	3%	-4%
16	90	3%	-7%



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
4612lx	1153lx	512lx	288lx	184lx	128lx	94lx	72lx	57lx	46lx	38lx	32lx	27lx	24lx	20lx	18lx	16lx	14lx	13lx	12lx
428.5fcd	107.1fcd	47.6fcd	26.8fcd	17.1fcd	11.9fcd	8.7fcd	6.7fcd	5.3fcd	4.3fcd	3.5fcd	3fcd	2.5fcd	2.2fcd	1.9fcd	1.7fcd	1.5fcd	1.3fcd	1.2fcd	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°
4612	4470	4018	3394	2714	2106	1611	1241	979	797	674	581	501	422	345	266	188	125	80	51
100%	97%	87%	74%	59%	46%	35%	27%	21%	17%	15%	13%	11%	9%	7%	6%	4%	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°
4612	4457	4040	3468	2852	2265	1776	1379	1089	877	724	611	517	432	348	271	198	138	94	64
100%	97%	88%	75%	62%	49%	38%	30%	24%	19%	16%	13%	11%	9%	8%	6%	4%	3%	2%	1%

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°
4612	4427	3965	3347	2702	2113	1629	1263	1000	814	683	588	511	432	351	268	187	122	77	49
100%	96%	86%	73%	59%	46%	35%	27%	22%	18%	15%	13%	11%	9%	8%	6%	4%	3%	2%	1%

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°
4612	4463	4054	3479	2850	2265	1769	1378	1084	872	723	611	515	431	350	273	200	138	94	65
100%	97%	88%	75%	62%	49%	38%	30%	24%	19%	16%	13%	11%	9%	8%	6%	4%	3%	2%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
19.2°	50.4°	69.3°	99.4%	98.7%

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