

Light efficiency:



Light quality:



Color temperature:

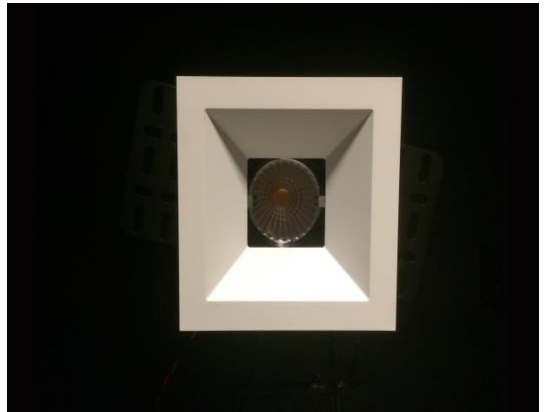


Output: 656 lm

Peak: 3198 cd

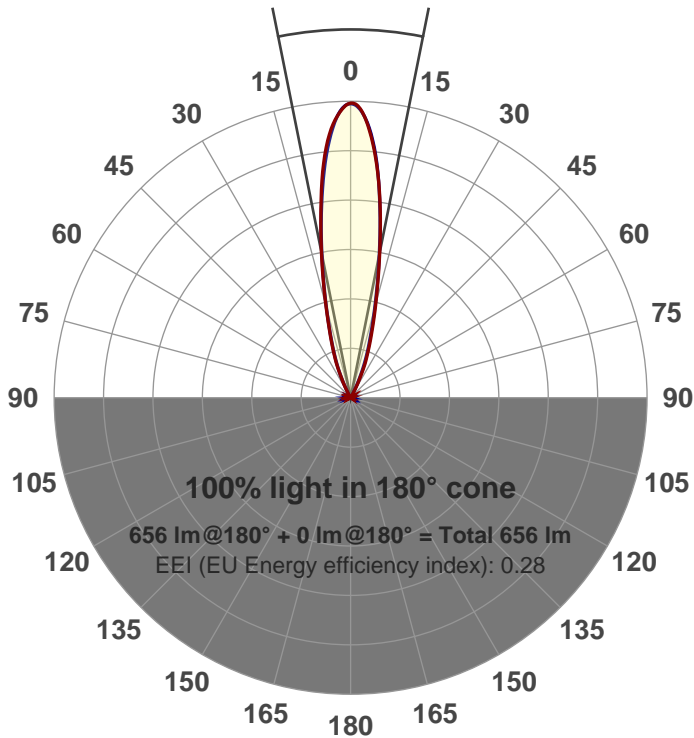
Power: 15.0 W

PF: 0.98



Beam angle

22.7°



Product name:

**GR-AD-NF-SQ**

Item number:

**GR-AD-NF-SQ**

Date and time:

**5/4/2017 3:52:19 PM**

Description:

**LUM: 656**

**PPF: 11.1**

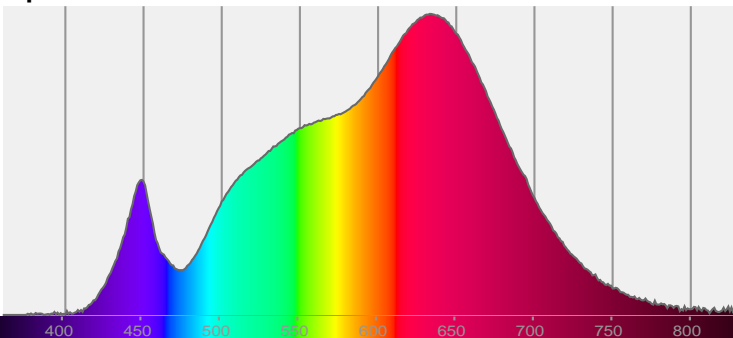


CIE 1931

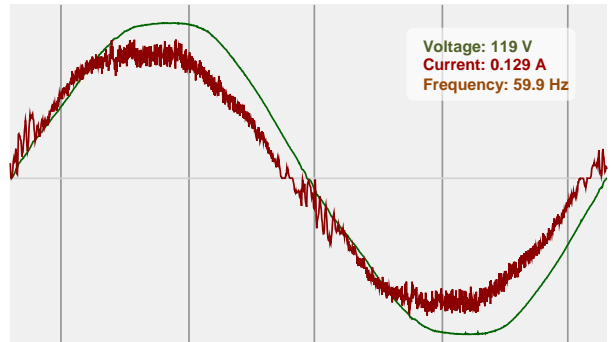
x: 0.437

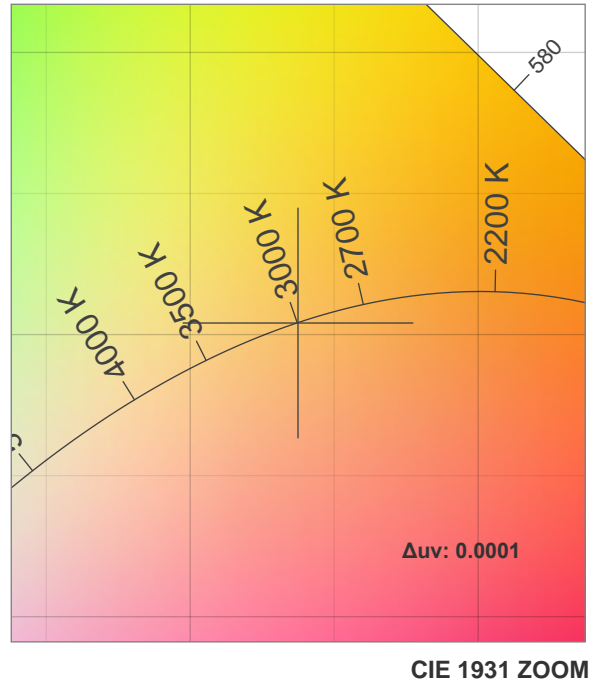
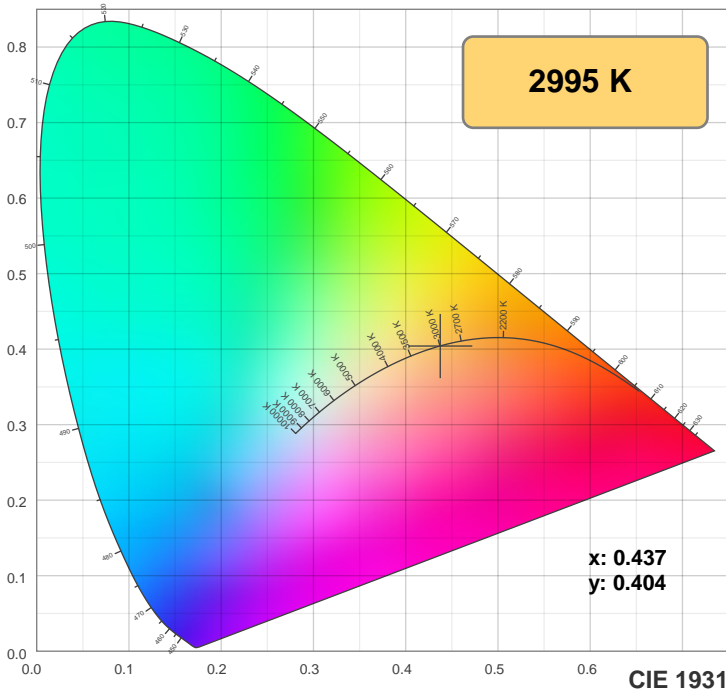
y: 0.404

Spectra

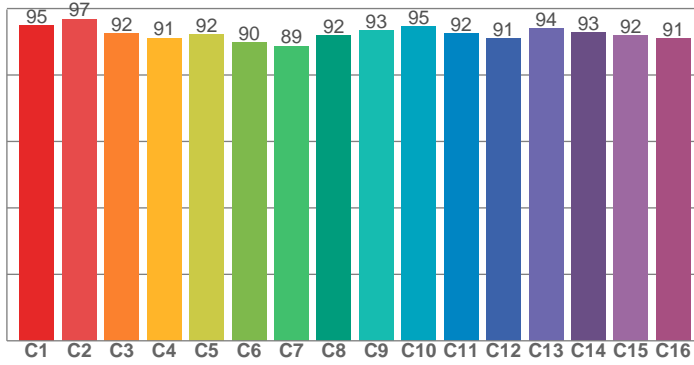


Power

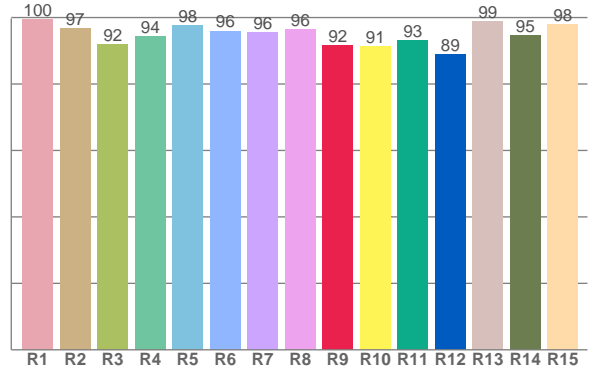




**TM30: 92.7**



**CRI: 96.1 (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
99.5	96.9	92.0	94.3	97.7	96.0	95.6	96.4	91.6	91.3	93.3	88.9	98.7	94.6	97.9

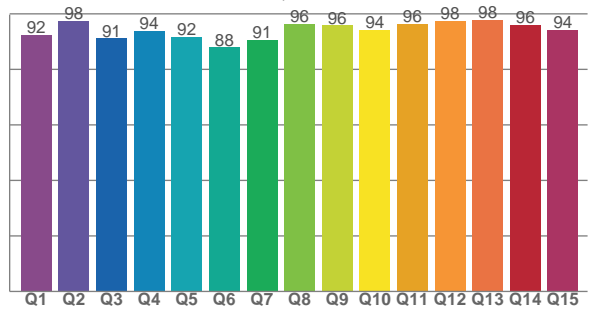
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94.8	96.9	92.4	91.1	92.2	89.9	88.8	91.8	93.3	94.7	92.4	91.0	94.0	92.7	91.9	91.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92.4	97.5	91.1	93.9	91.5	87.9	90.7	96.3	95.8	94.2	96.2	97.5	97.8	96.0	94.2

**CQS: 93.3**



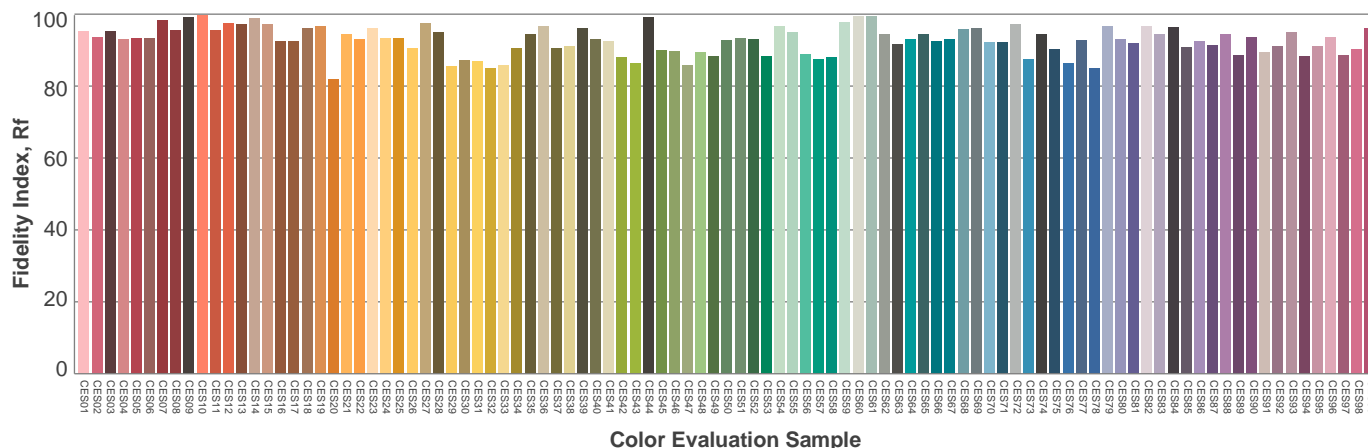
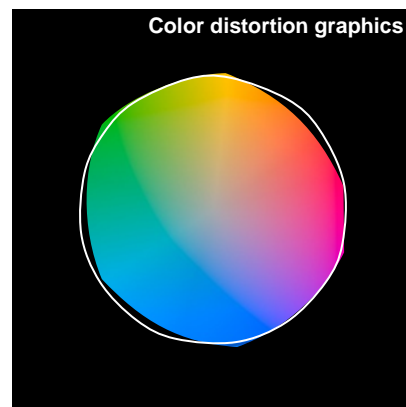
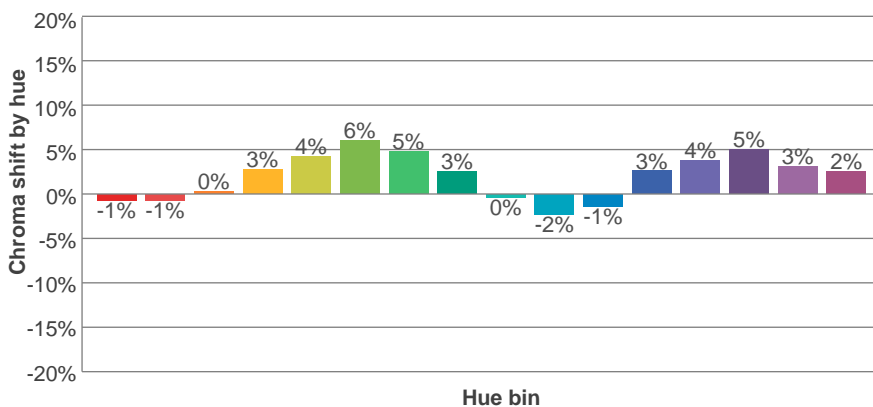
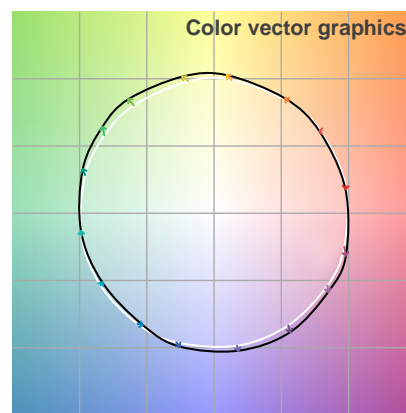
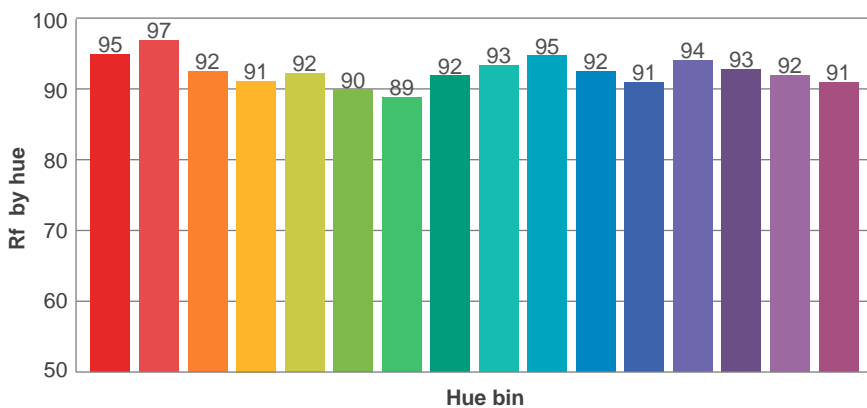
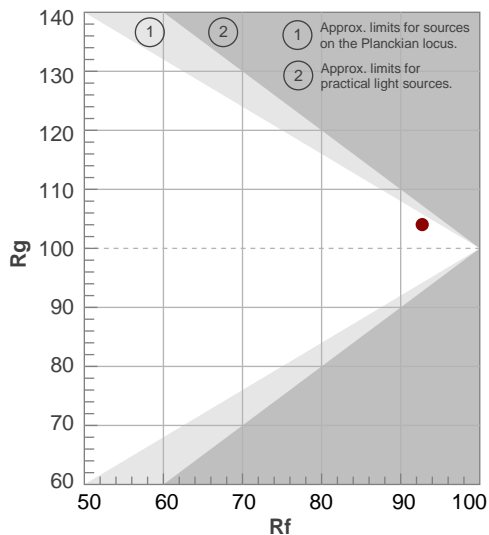
## Color parameters

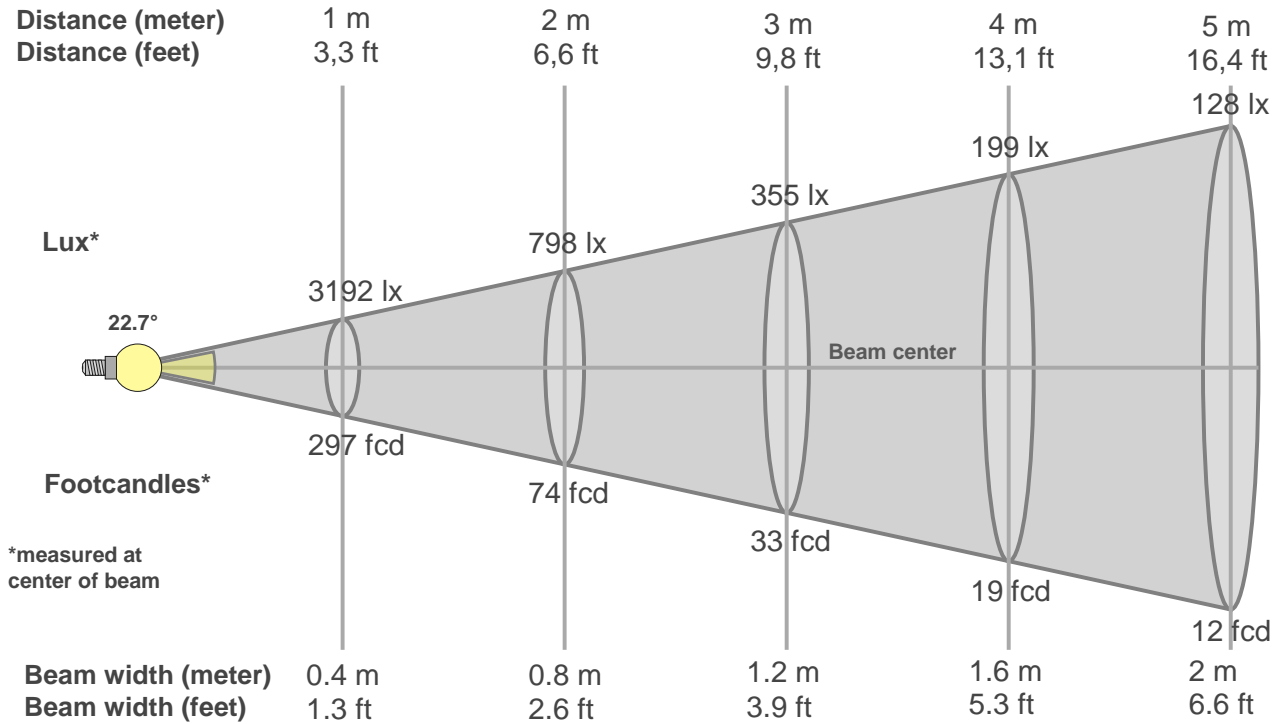
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2995 K	96.1	91.6	92.7	104.0	93.3	0.437	0.404	0.251	0.348	0.0001

**Rf 92.7**  
Fidelity index Rf

**Rg 104.0**  
Gammut index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	-2%
2	97	-1%	1%
3	92	0%	3%
4	91	3%	4%
5	92	4%	4%
6	90	6%	1%
7	89	5%	-4%
8	92	3%	-4%
9	93	0%	-4%
10	95	-2%	-1%
11	92	-1%	4%
12	91	3%	3%
13	94	4%	0%
14	93	5%	-2%
15	92	3%	-3%
16	91	2%	-6%





### 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
3192lx	798lx	355lx	199lx	128lx	89lx	65lx	50lx	39lx	32lx	26lx	22lx	19lx	16lx	14lx	12lx	11lx	10lx	9lx	8lx
296.5fcd	74.1fcd	32.9fcd	18.5fcd	11.9fcd	8.2fcd	6.1fcd	4.6fcd	3.7fcd	3fcd	2.5fcd	2.1fcd	1.8fcd	1.5fcd	1.3fcd	1.2fcd	1fcd	0.9fcd	0.8fcd	0.7fcd

### 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°
3192	3110	2936	2656	2273	1861	1493	1175	910	714	558	429	290	182	81	33	25	21	17	14
100%	97%	92%	83%	71%	58%	47%	37%	29%	22%	17%	13%	9%	6%	3%	1%	1%	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°
3192	3116	2903	2594	2222	1838	1468	1155	895	691	533	398	267	146	61	32	26	21	18	15
100%	98%	91%	81%	70%	58%	46%	36%	28%	22%	17%	12%	8%	5%	2%	1%	1%	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°
3192	3129	2911	2610	2251	1858	1493	1184	940	742	585	456	327	202	99	35	25	21	17	14
100%	98%	91%	82%	71%	58%	47%	37%	29%	23%	18%	14%	10%	6%	3%	1%	1%	1%	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°
3192	3122	2929	2627	2241	1841	1467	1152	895	692	536	393	260	138	59	33	26	22	18	15
100%	98%	92%	82%	70%	58%	46%	36%	28%	22%	17%	12%	8%	4%	2%	1%	1%	1%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22.7°	47°	55.6°	1.0%	1.0%



