

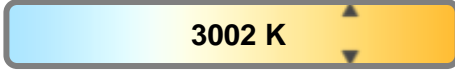
Light efficiency:



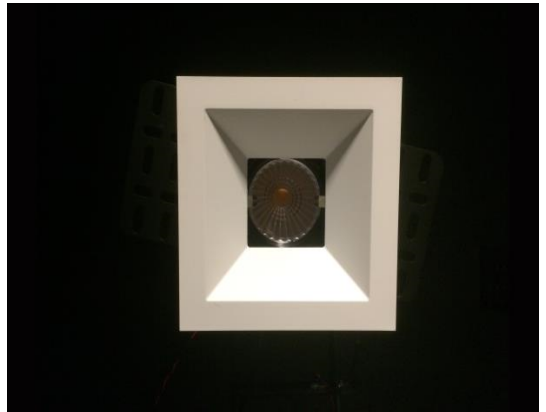
Light quality:



Color temperature:

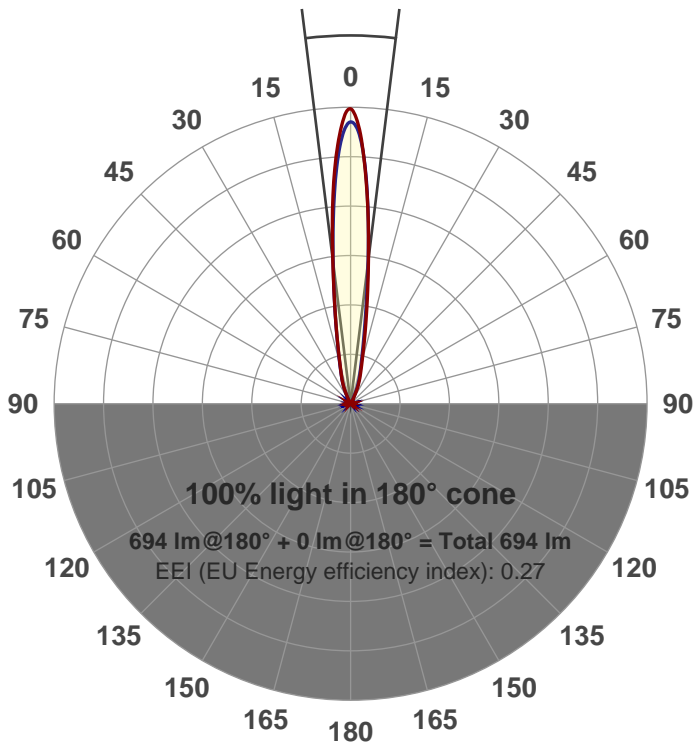


**Output:** 694 lm  
**Peak:** 6250 cd  
**Power:** 15.0 W  
**PF:** 0.98



Beam angle

14.1°



Product name:  
**GR-AD-SP-SQ**  
 Item number:  
**GR-AD-SP-SQ**  
 Date and time:  
**5/4/2017 4:09:58 PM**  
 Description:

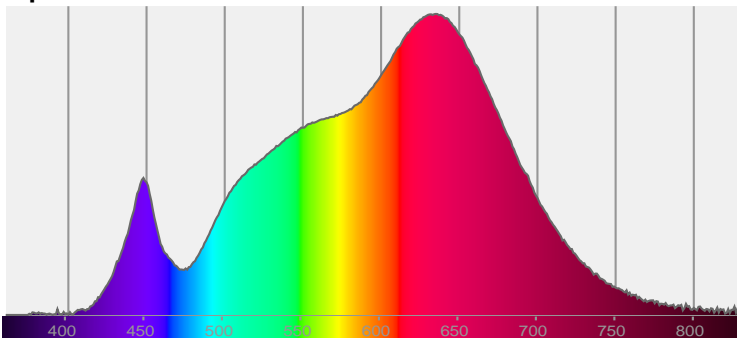
**LUM: 694**

**PPF: 11.8**

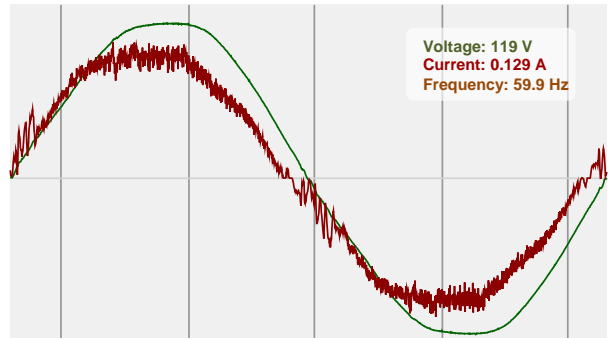


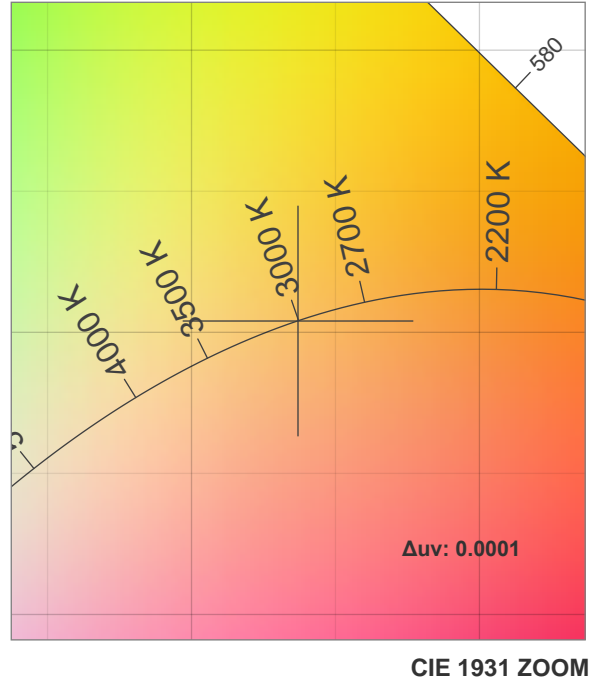
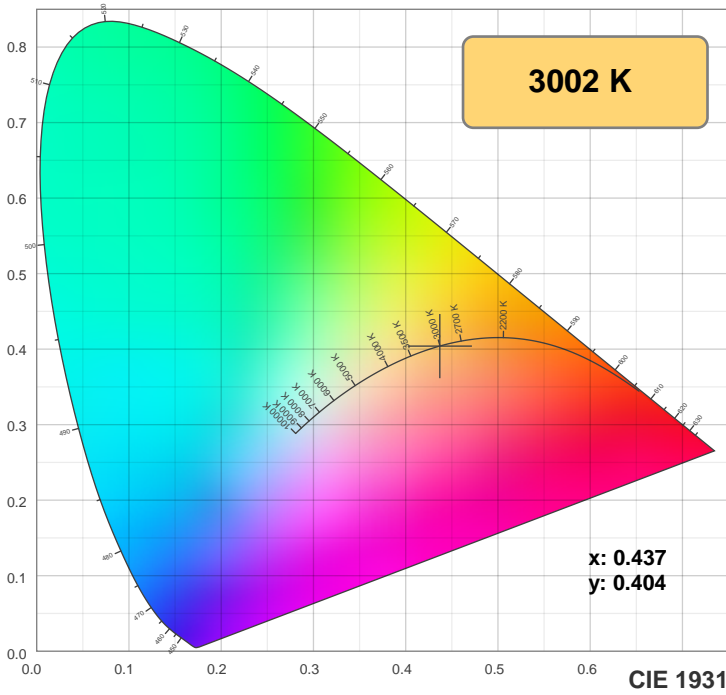
CIE 1931  
 x: 0.437  
 y: 0.404

Spectra

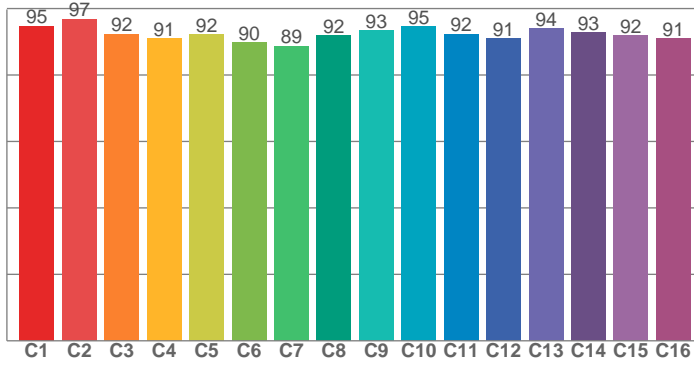


Power

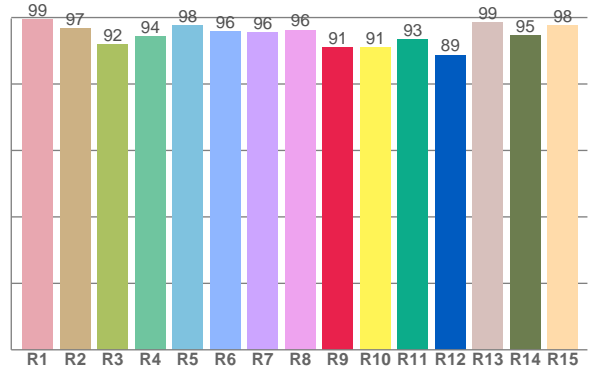




**TM30: 92.7**



**CRI: 96.0 (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
99.4	96.8	92.0	94.3	97.7	95.9	95.6	96.3	91.1	91.2	93.4	88.8	98.6	94.6	97.7

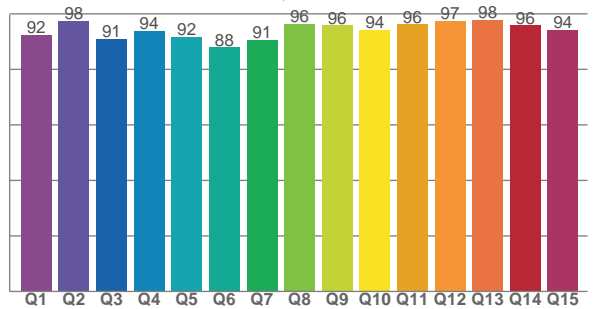
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94.8	96.8	92.3	91.0	92.2	89.9	88.7	91.9	93.3	94.6	92.4	90.9	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
92.3	97.5	91.1	93.8	91.5	87.9	90.7	96.3	95.8	94.1	96.1	97.4	97.8	95.8	94.1

**CQS: 93.3**



## Color parameters

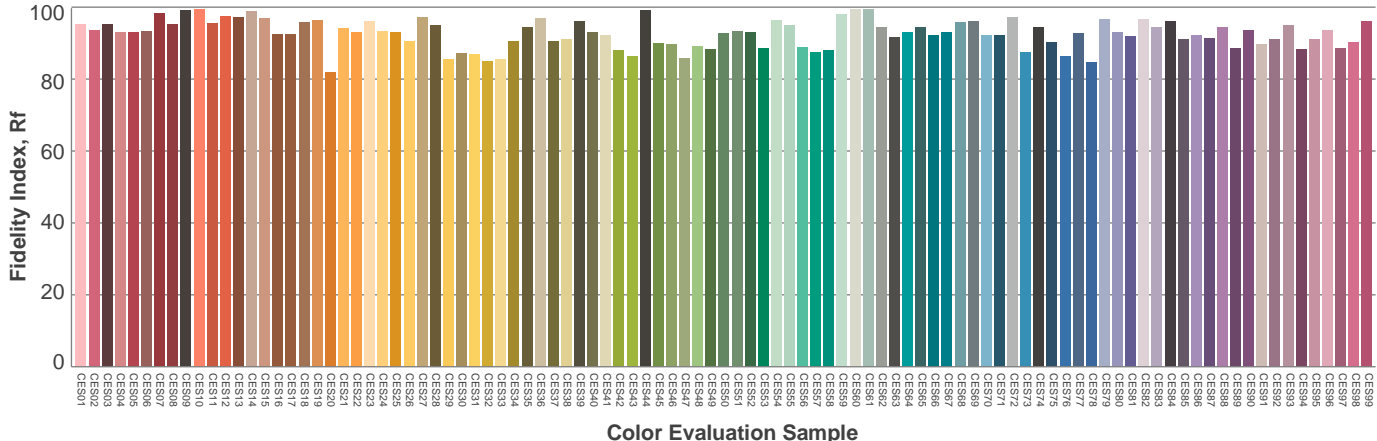
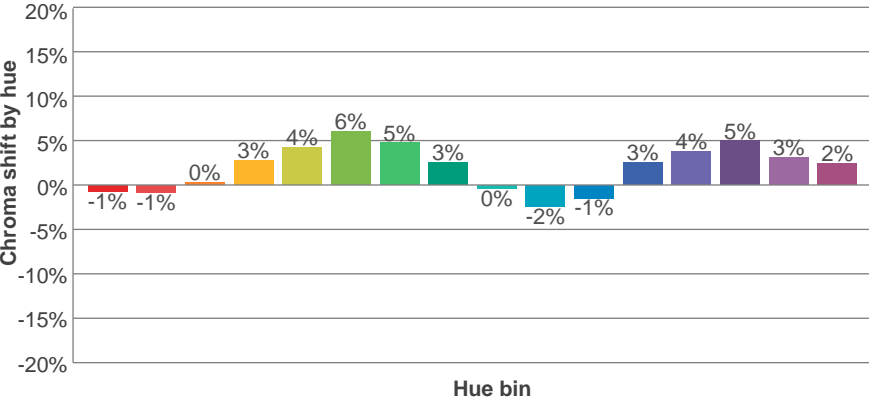
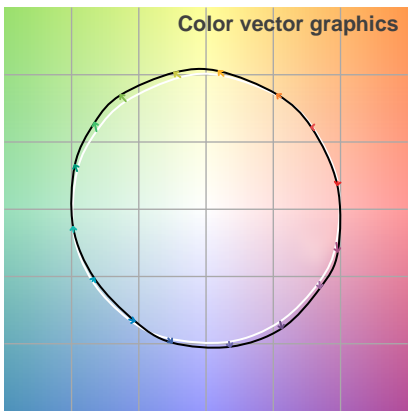
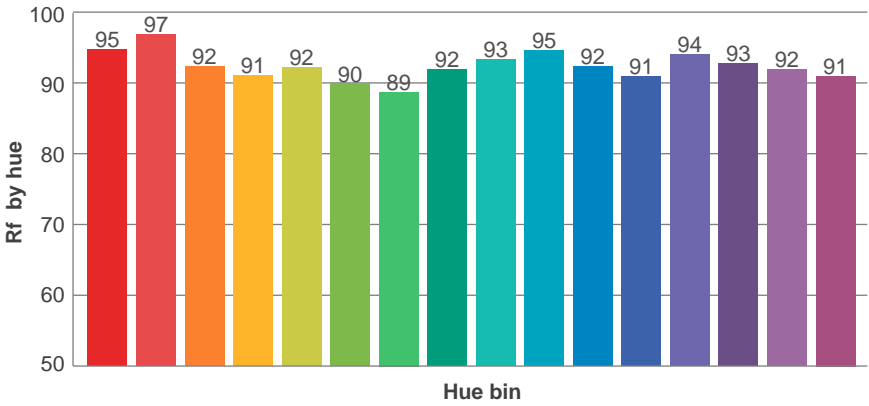
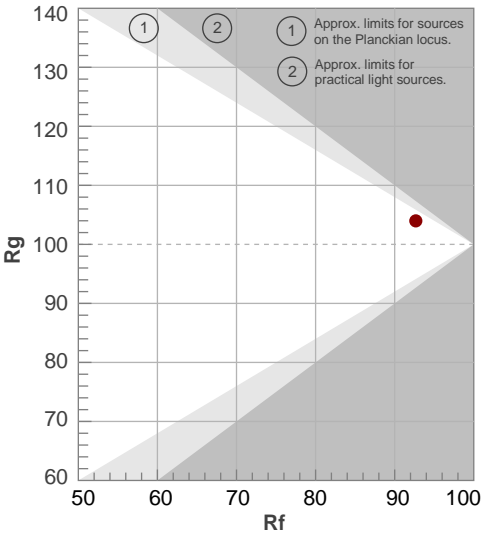
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
<b>CCT</b>	<b>CRI</b>	<b>CRI R9</b>	<b>TM30 Rf</b>	<b>TM30 Rg</b>	<b>CQS</b>	<b>x</b>	<b>y</b>	<b>u</b>	<b>v</b>	<b>Δuv</b>
<b>3002 K</b>	<b>96.0</b>	<b>91.1</b>	<b>92.7</b>	<b>104.0</b>	<b>93.3</b>	<b>0.437</b>	<b>0.404</b>	<b>0.251</b>	<b>0.348</b>	<b>0.0001</b>

# TM30 details

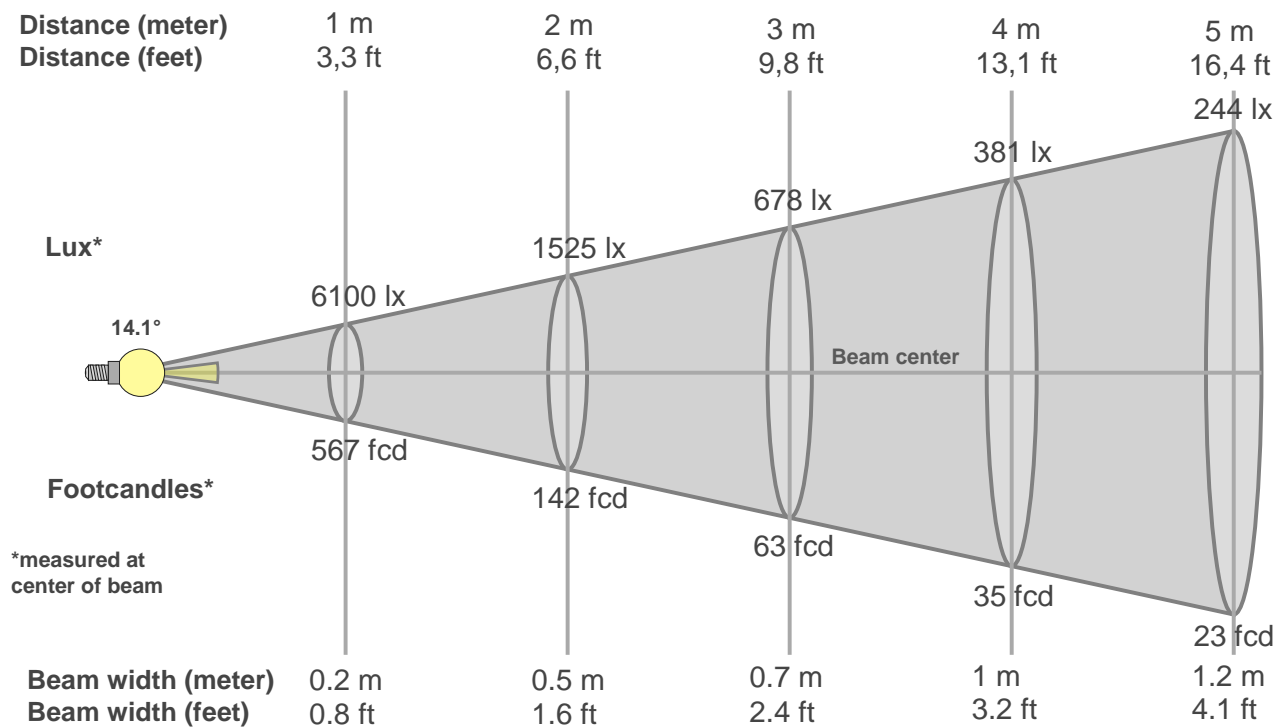
**Rf 92.7**  
Fidelity index Rf

**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%	4%
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%	-4%
16	91	2%	-6%



# 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
6100lx	1525lx	678lx	381lx	244lx	169lx	124lx	95lx	75lx	61lx	50lx	42lx	36lx	31lx	27lx	24lx	21lx	19lx	17lx	15lx
566.7fc	141.7fc	63fcd	35.4fcd	22.7fcd	15.7fcd	11.6fcd	8.9fcd	7fcd	5.7fcd	4.7fcd	3.9fcd	3.4fcd	2.9fcd	2.5fcd	2.2fcd	2fcd	1.7fcd	1.6fcd	1.4fcd

### Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
6100	6149	5840	5417	4908	4330	3709	3113	2599	2180	1841	1562	1329	1143	991	870	775	695	630	568
100%	101%	96%	89%	80%	71%	61%	51%	43%	36%	30%	26%	22%	19%	16%	14%	13%	11%	10%	9%

### Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
6100	5858	5592	5189	4686	4131	3570	3040	2571	2177	1850	1572	1346	1165	1015	891	791	707	635	575
100%	96%	92%	85%	77%	68%	59%	50%	42%	36%	30%	26%	22%	19%	17%	15%	13%	12%	10%	9%

### Intensities in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
6100	6086	5756	5274	4733	4183	3631	3113	2657	2273	1939	1663	1432	1235	1074	946	847	758	687	621
100%	100%	94%	86%	78%	69%	60%	51%	44%	37%	32%	27%	23%	20%	18%	16%	14%	12%	11%	10%

### Intensities in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
6100	5886	5652	5263	4758	4190	3606	3043	2538	2116	1777	1504	1288	1112	968	852	757	678	610	549
100%	97%	93%	86%	78%	69%	59%	50%	42%	35%	29%	25%	21%	18%	16%	14%	12%	11%	10%	9%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
14.1°	36.9°	51.7°	1.0%	1.0%



