

Light efficiency:

**67 Lumen/Watt**

Light quality:

**CRI: 98.0**

Color temperature:

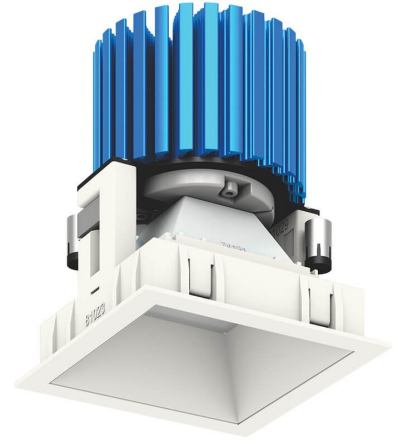
**3009 K**

**Output: 1070 lm**

**Peak: 654 cd**

**Power: 15.9 W**

**PF: 0.97**

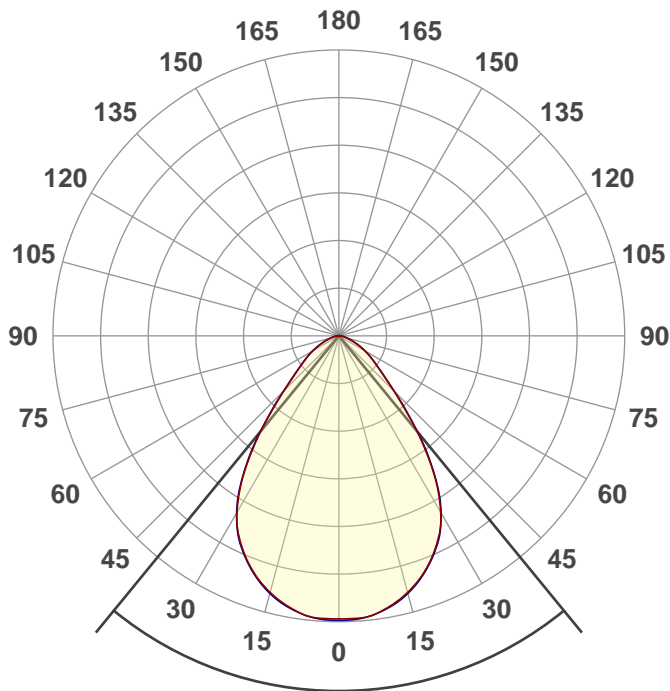


Product name:

**NU3-QD-SUN-13LM-30K-97-HE80-120-DIM10-RET-WH-WH**

Date and time:

**12/21/2018 7:08:18 AM**



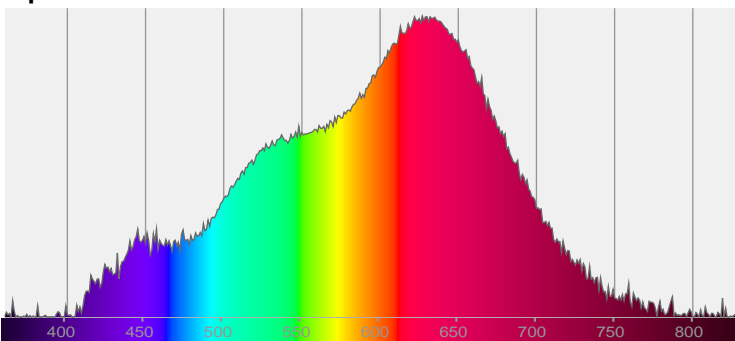
Beam angle

**78.6°**

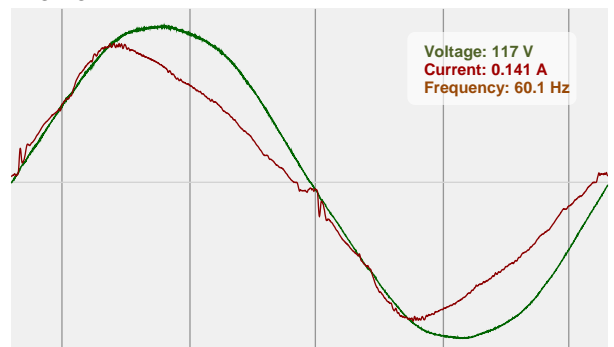


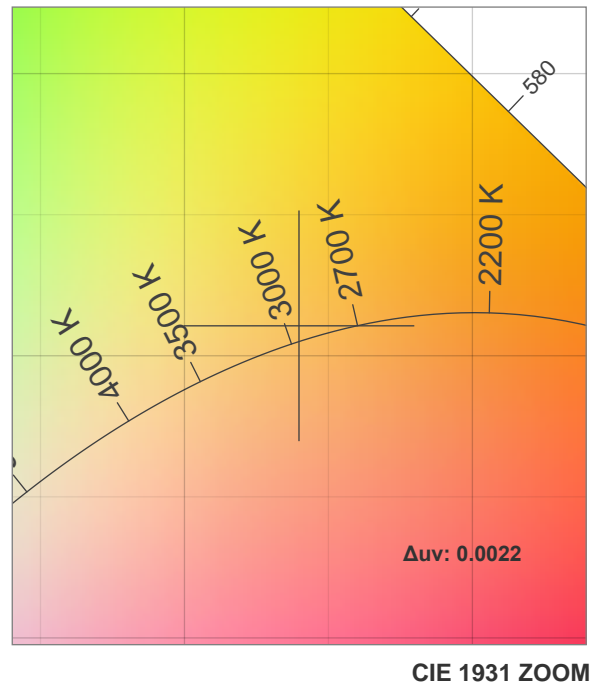
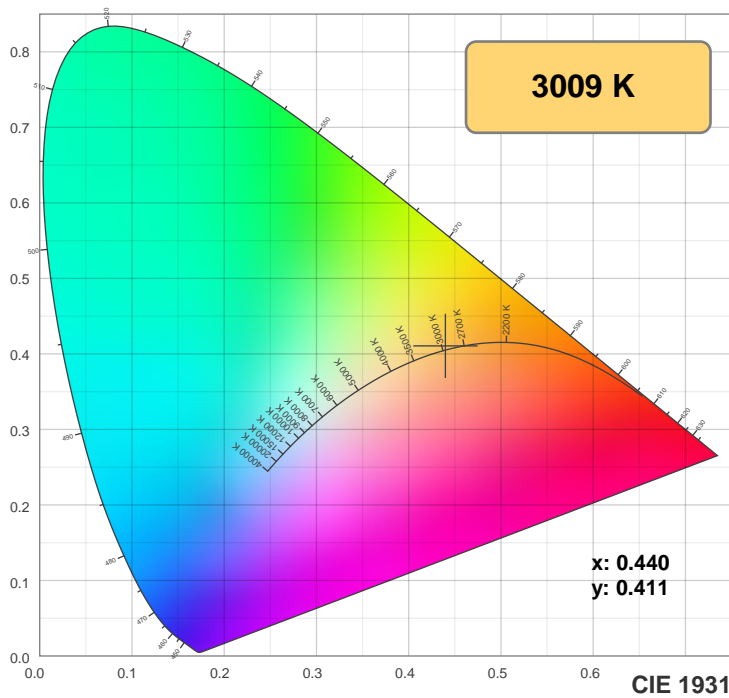
CIE 1931  
x: 0.440  
y: 0.411

Spectra

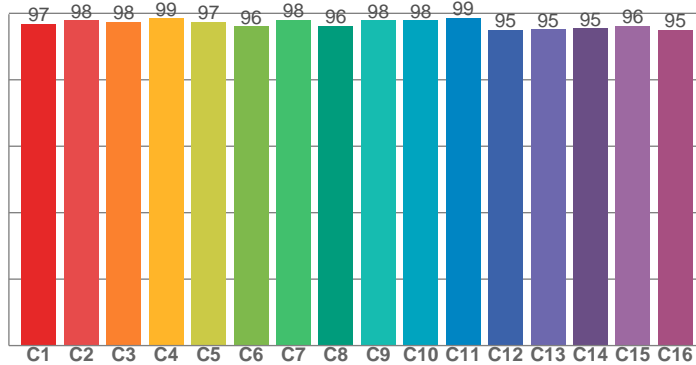


Power

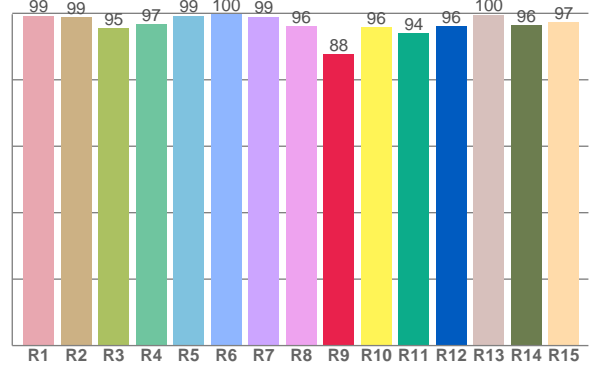




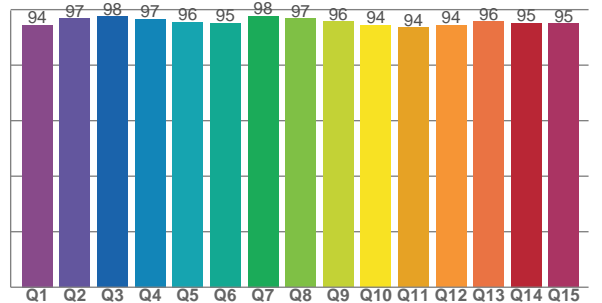
TM30: 97.0



CRI: 98.0 (R1-R8)



CQS: 95.4



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
99.3	98.8	95.5	96.7	99.3	99.7	99.0	96.1	87.6	95.9	94.0	96.1	99.5	96.5	97.3

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
96.8	97.9	97.5	98.5	97.3	96.1	98.0	96.3	97.9	97.8	98.5	95.1	95.2	95.5	96.2	95.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94.4	96.8	97.5	96.5	95.5	95.1	97.7	96.7	95.7	94.4	93.6	94.3	95.7	95.2	94.9

## 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	$\Delta uv$
3009 K	98.0	87.6	97.0	100.4	95.4	0.440	0.411	0.250	0.350	0.0022

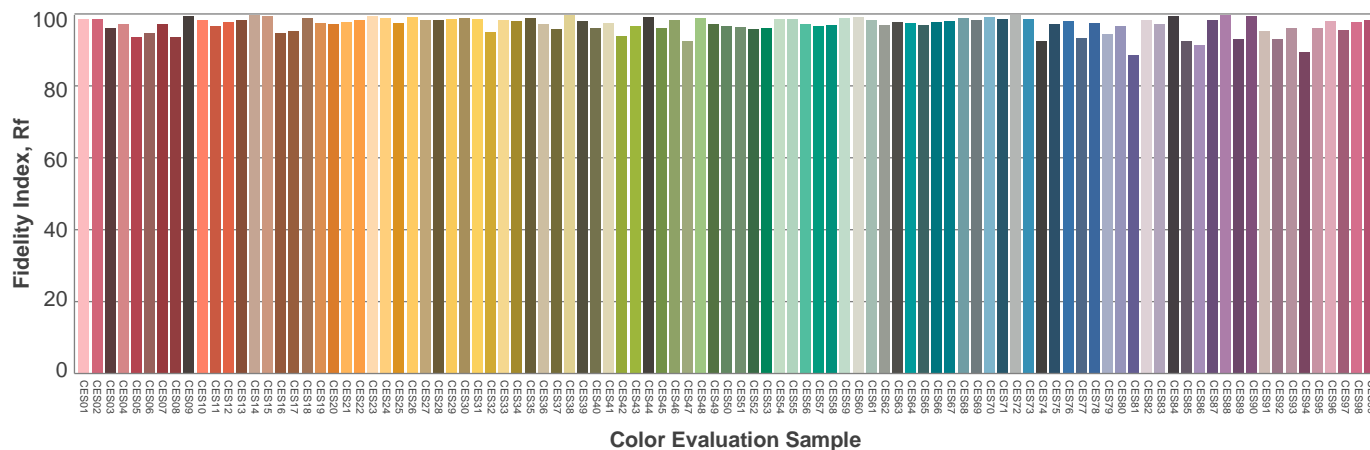
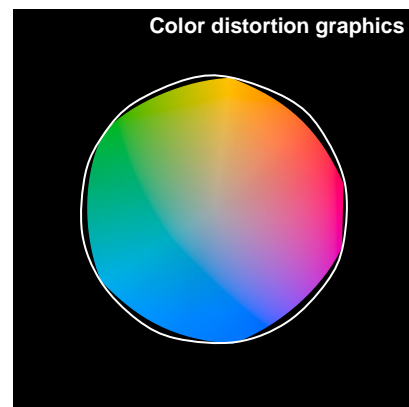
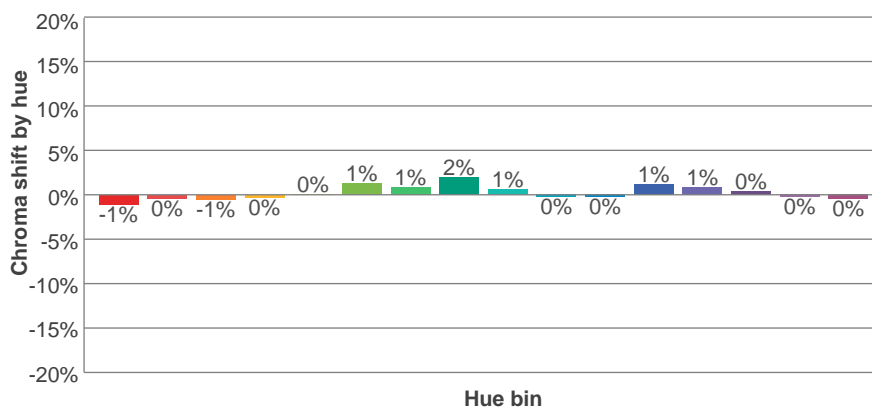
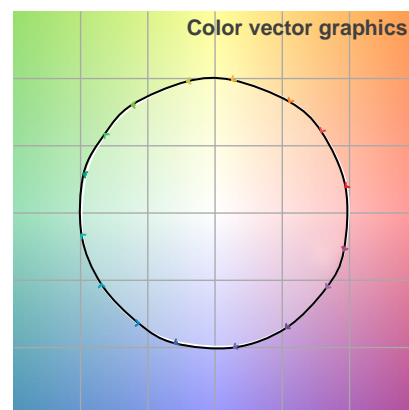
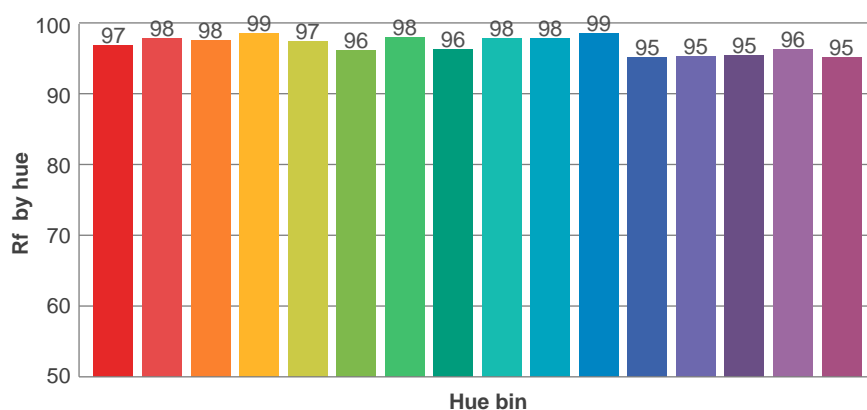
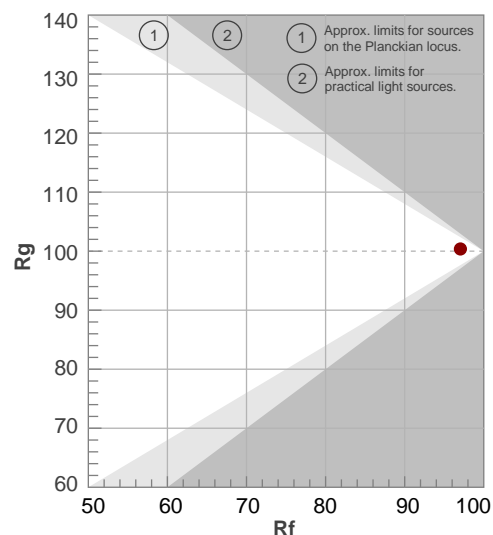
**Rf 97.0**

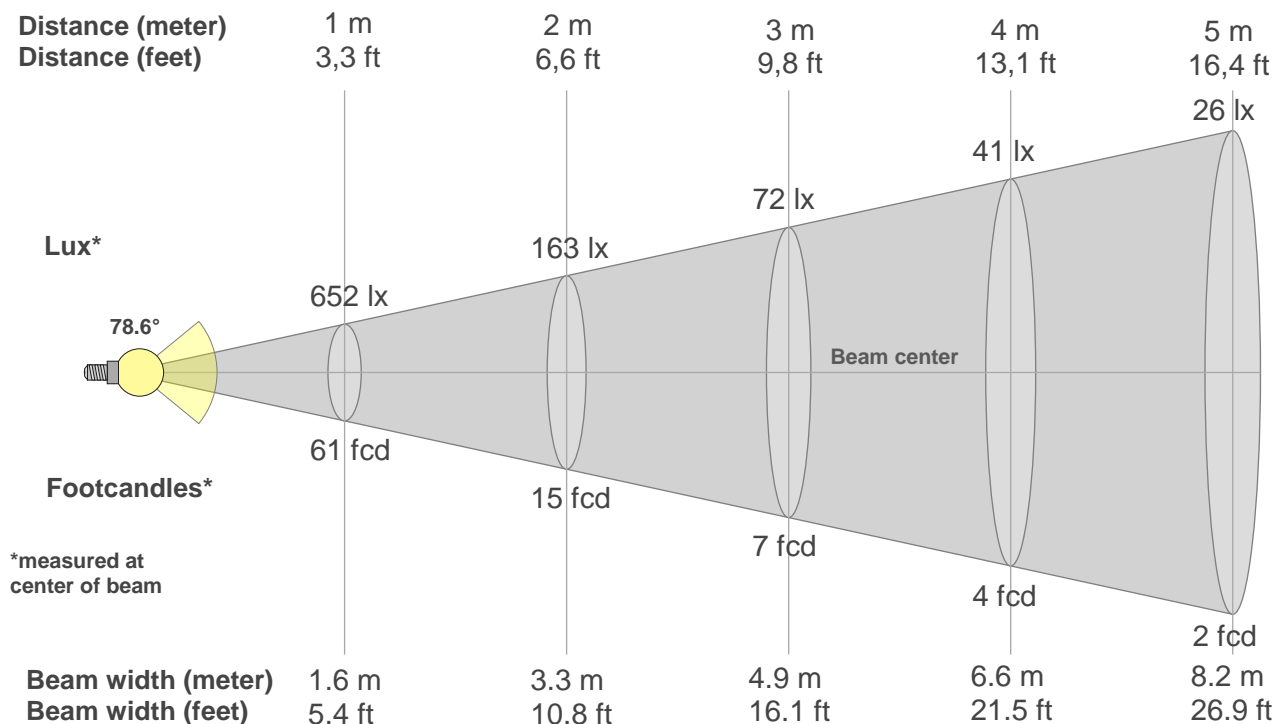
Fidelity index Rf

**Rg 100.4**

Gamut index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	97	-1%	-1%
2	98	0%	0%
3	98	-1%	0%
4	99	0%	0%
5	97	0%	2%
6	96	1%	2%
7	98	1%	0%
8	96	2%	0%
9	98	1%	-1%
10	98	0%	0%
11	99	0%	0%
12	95	1%	-2%
13	95	1%	-3%
14	95	0%	-3%
15	96	0%	-2%
16	95	0%	-3%





**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
652lx	163lx	72lx	41lx	26lx	18lx	13lx	10lx	8lx	7lx	5lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx	2lx
60.6fcd	15.2fcd	6.7fcd	3.8fcd	2.4fcd	1.7fcd	1.2fcd	0.9fcd	0.7fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd

**Intensities in 0° c-plane**

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
652	650	635	610	575	529	466	375	271	181	126	94	69	48	31	19	11	5	1	1
100%	100%	97%	94%	88%	81%	71%	58%	41%	28%	19%	14%	11%	7%	5%	3%	2%	1%	0%	0%

**Intensities in 90° c-plane**

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
652	650	636	612	577	531	467	378	274	185	128	95	70	49	31	19	11	5	1	1
100%	100%	97%	94%	88%	81%	72%	58%	42%	28%	20%	15%	11%	8%	5%	3%	2%	1%	0%	0%

**Intensities in 180° c-plane**

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
652	650	635	610	575	529	466	375	271	181	126	94	69	48	31	19	11	5	1	1
100%	100%	97%	94%	88%	81%	71%	58%	41%	28%	19%	14%	11%	7%	5%	3%	2%	1%	0%	0%

**Intensities in 270° c-plane**

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
652	650	636	612	577	531	467	378	274	185	128	95	70	49	31	19	11	5	1	1
100%	100%	97%	94%	88%	81%	72%	58%	42%	28%	20%	15%	11%	8%	5%	3%	2%	1%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
78.6°	123°	153.4°	92.5%	77.1%