

Light efficiency:

**80 Lumen/Watt**

Light quality:

**CRI: 92.9**

Color temperature:

**2923 K**

**Output: 939 lm**

**Peak: 332 cd**

**Power: 11.7 W**

**PF: 1.0**

No photo

Tracking number: [n/a](#)

Product name:

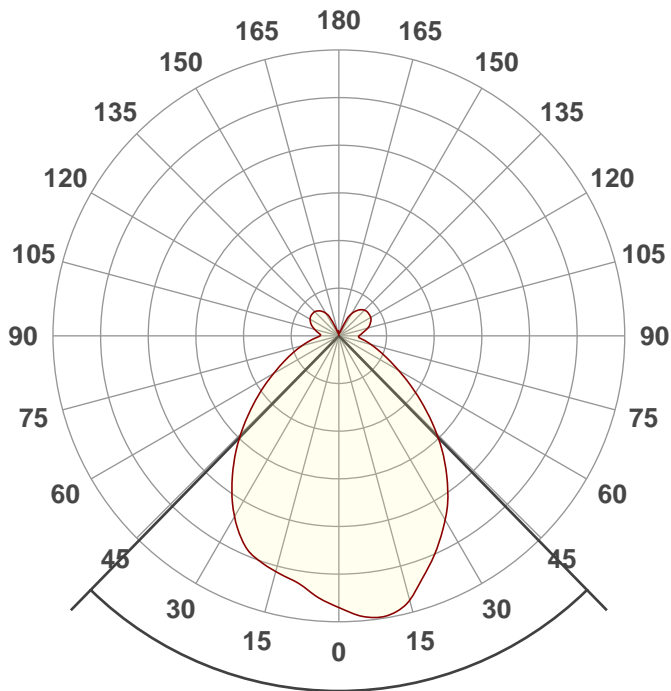
**KLEE 20 INCH**

Item number:

Date and time:

**12/18/2019 2:35:04 PM**

Description:



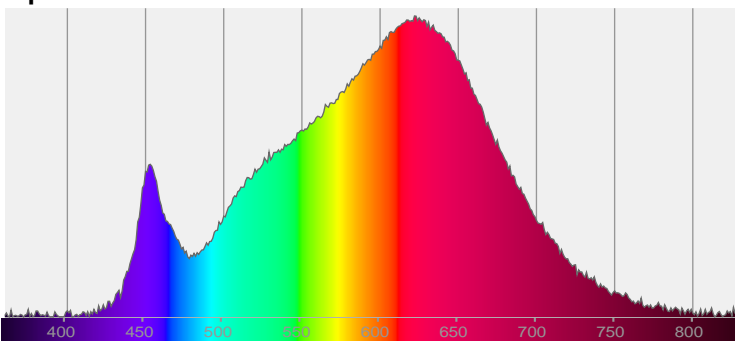
Beam angle

**88.6°**

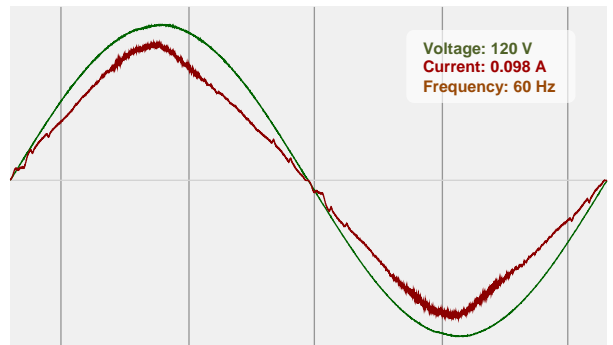


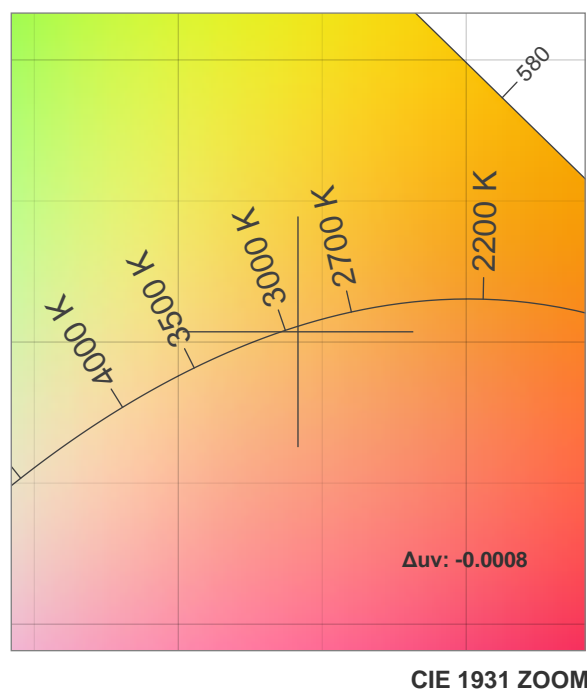
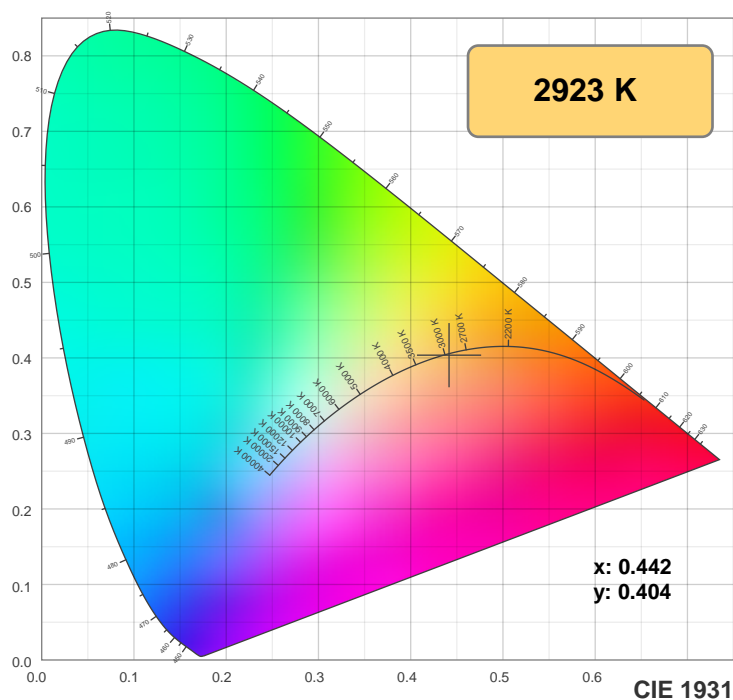
CIE 1931  
x: 0.442  
y: 0.404

Spectra

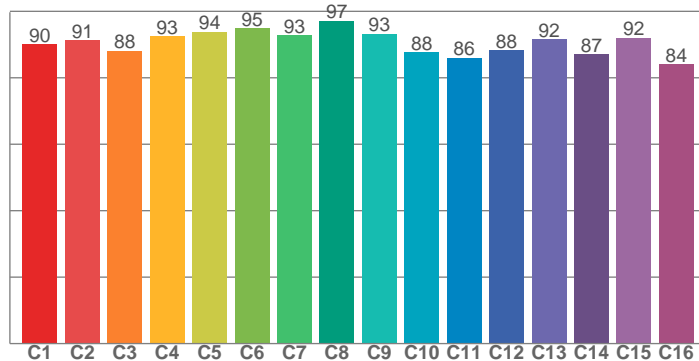


Power

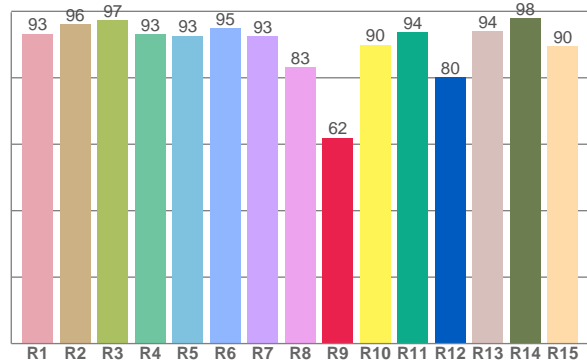




**TM30: 90.5**



**CRI: 92.9 (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
93.2	96.2	97.4	93.0	92.7	95.0	92.5	83.1	62.0	89.9	93.6	80.1	94.1	97.8	89.6

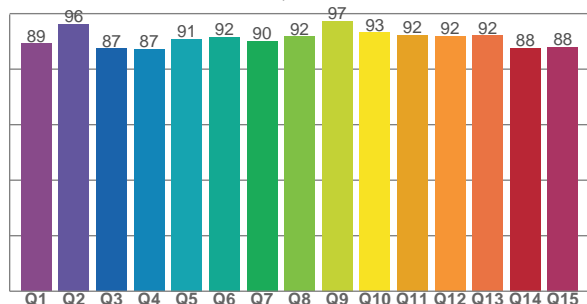
**TM30 C values, 16 binned values out of total of 99 C values**

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.1	91.3	88.2	92.5	93.9	94.9	92.7	97.1	93.3	87.7	86.0	88.3	91.6	87.1	91.9	84.0

**CQS Q values**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89.2	96.2	87.4	87.2	90.8	91.6	90.2	91.8	97.4	93.2	92.4	92.0	92.0	87.6	88.0

**CQS: 90.5**



## 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
2923 K	92.9	62.0	90.5	99.7	90.5	0.442	0.404	0.254	0.348	-0.0008

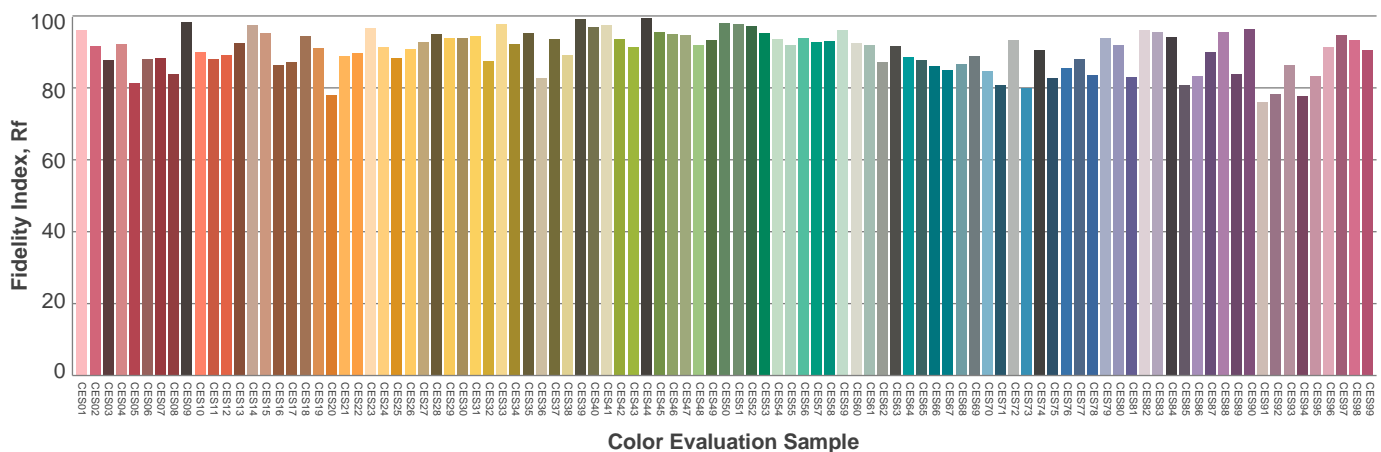
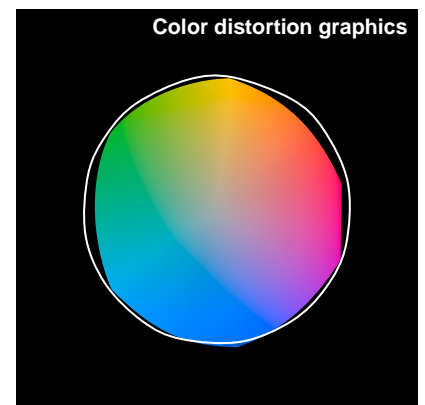
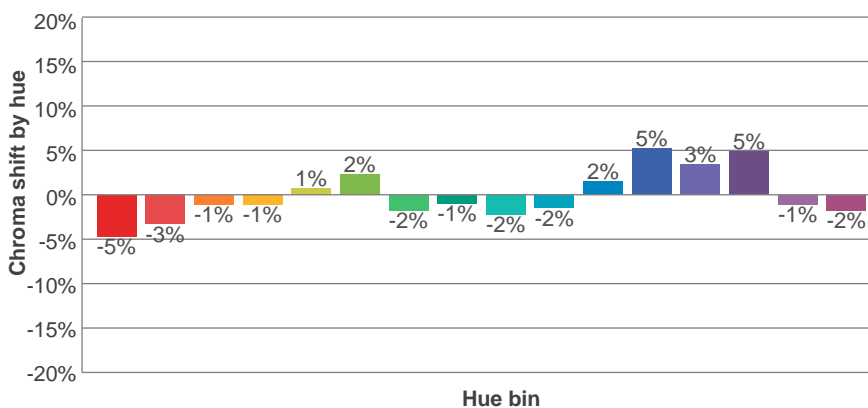
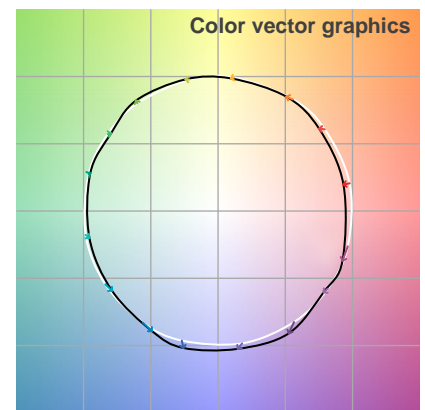
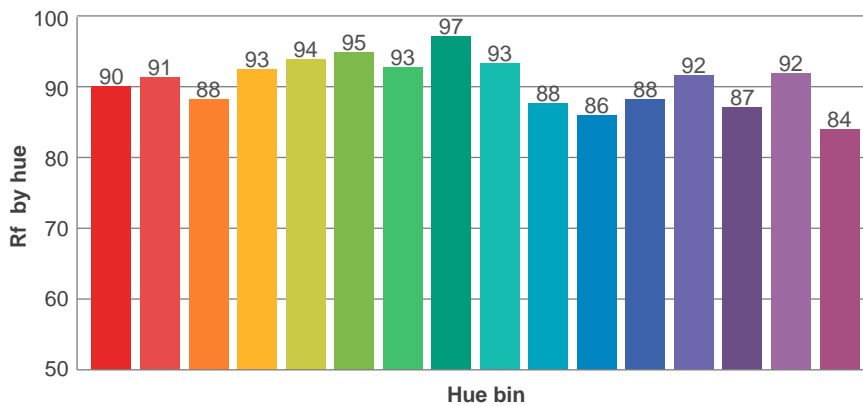
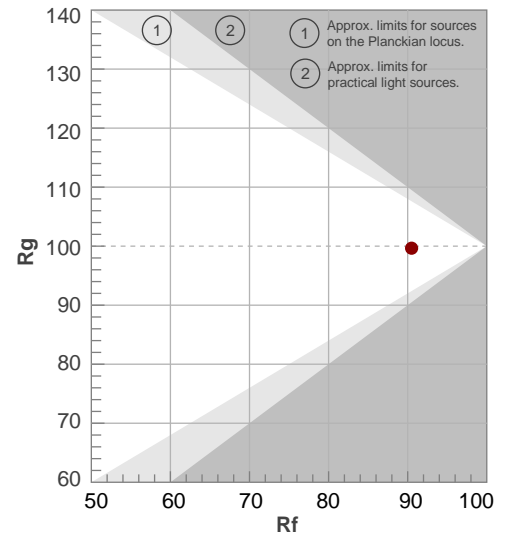
**Rf 90.5**

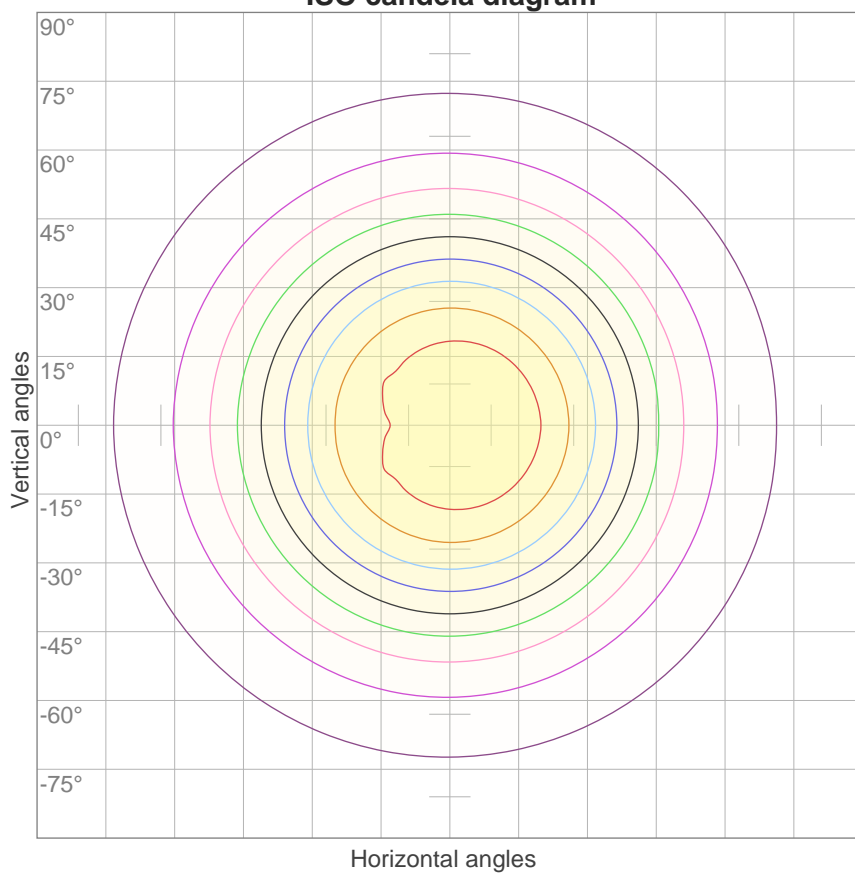
Fidelity index Rf

**Rg 99.7**

Gammut index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	0%
2	91	-3%	3%
3	88	-1%	5%
4	93	-1%	2%
5	94	1%	3%
6	95	2%	0%
7	93	-2%	-2%
8	97	-1%	-1%
9	93	-2%	3%
10	88	-2%	7%
11	86	2%	9%
12	88	5%	2%
13	92	3%	-4%
14	87	5%	-8%
15	92	-1%	-4%
16	84	-2%	-11%



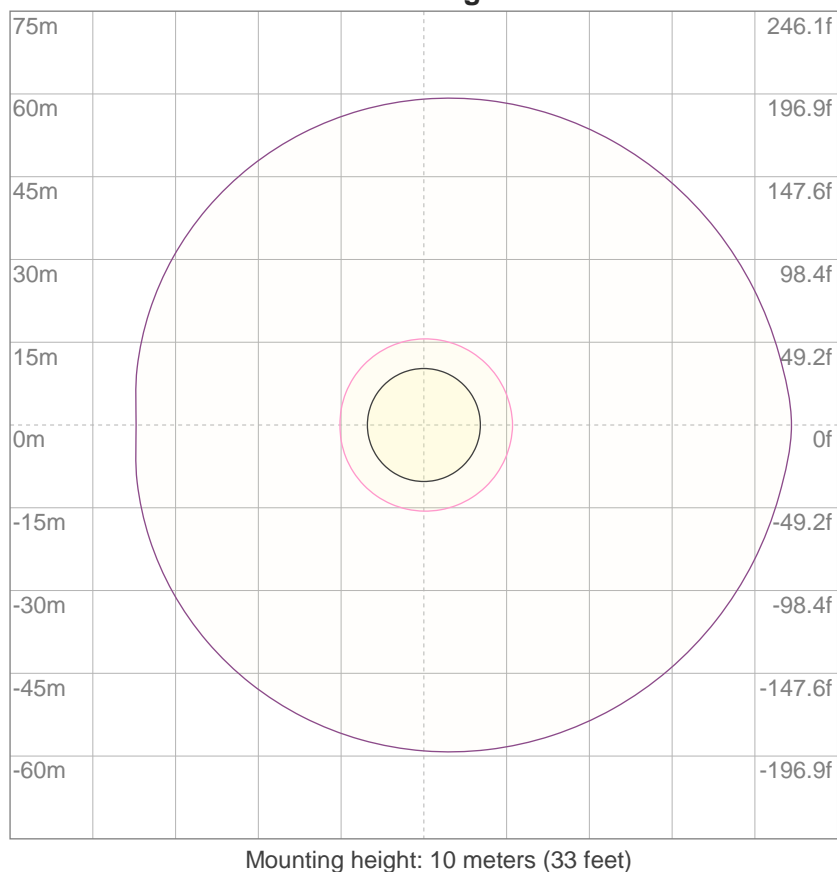
**ISO candela diagram**


10%	32 cd
20%	64 cd
30%	95 cd
40%	127 cd
50%	159 cd
60%	191 cd
70%	222 cd
80%	254 cd
90%	286 cd

**Conditions:**

Number of c-planes: 2

Candela at center: 318 cd

**ISO lux diagram**


3%	95.3m lx
5%	0.159 lx
10%	0.318 lx
30%	0.953 lx
50%	1.59 lx

**Conditions:**

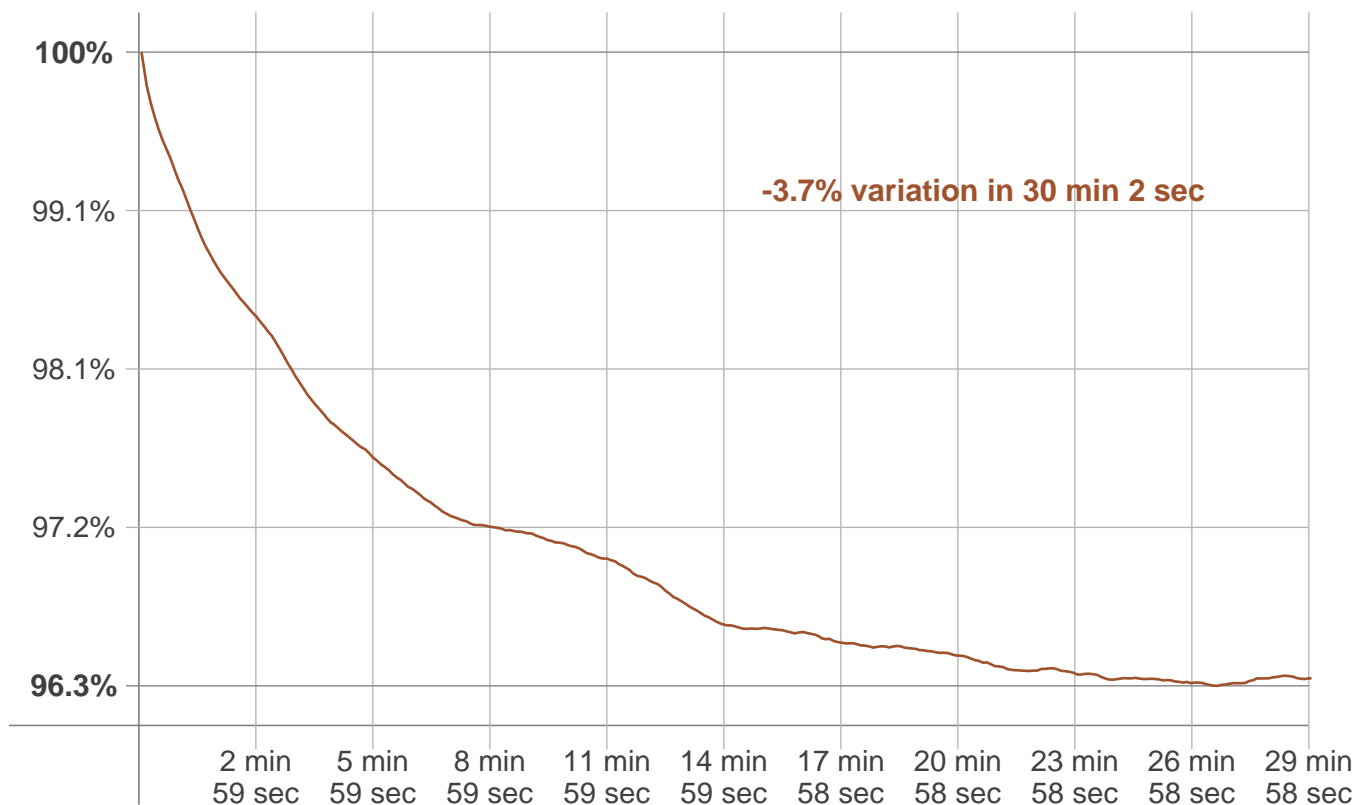
Number of c-planes: 2

Lux at center: 3.18 lx

*Lux distribution on a surface  
when lamp is mounted at 10  
meters from the surface.*

## Stabilization

### Warmup curve



### Warmup result

Warmup time:	30 min 2 sec
Warmup variation	-3.9%

### Warmup conditions

Stable period:	15 min
Stable change max:	0.5%
Minimum time:	30 min

### Color temperature change

CCT start	CCT change	CCT end
2921 K	+2 K	2923 K

### Output change

Output start	Output change	Output end
968 lm	-29 lm	939 lm