

Light efficiency:

Infinity Lumen/Watt

Light quality:

CRI: 97.7

Color temperature:

3261 K

Output: 2610 lm

Peak: 681 cd

Power: - W

PF: n/a



Product name:

Titan 3200K at full power PSU

Item number:

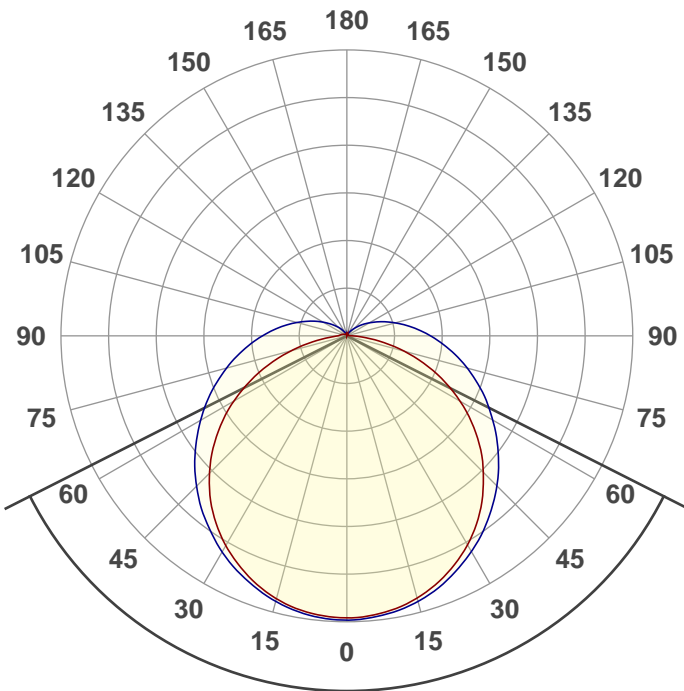
FP1

Date and time:

2/13/2019 5:22:49 PM

Description:

3200K at full power PSU



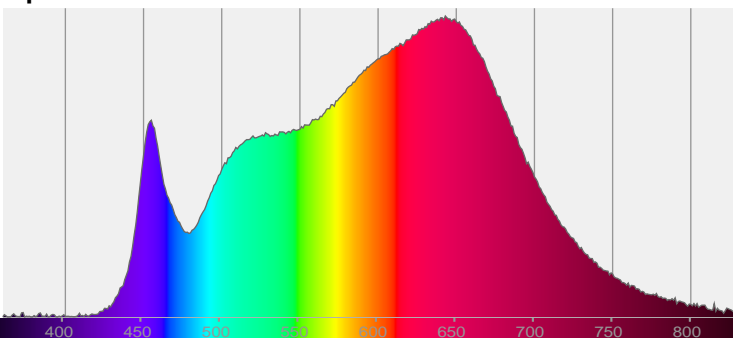
Beam angle

126.3°

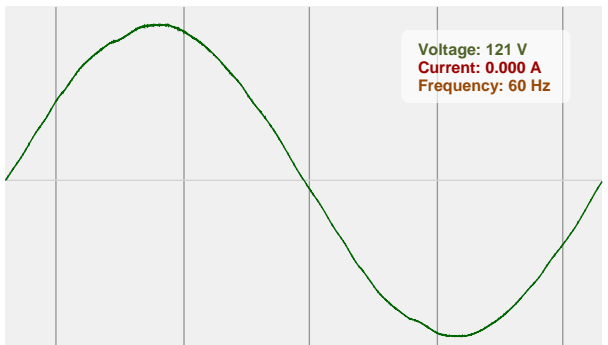


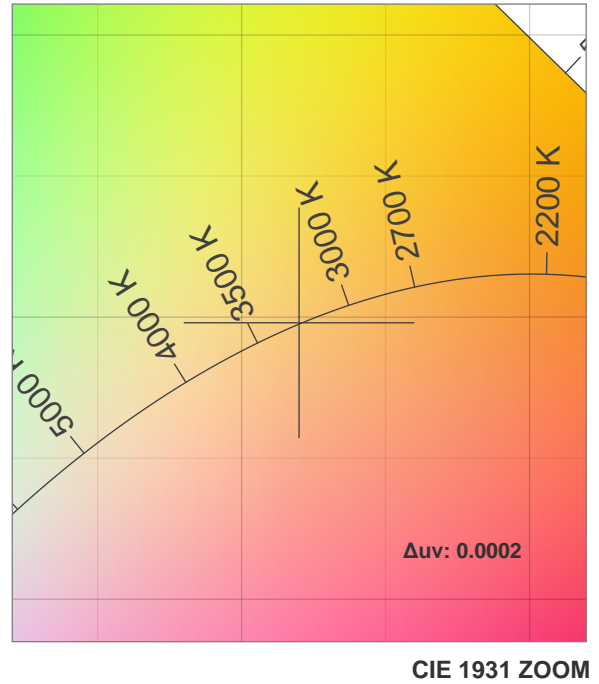
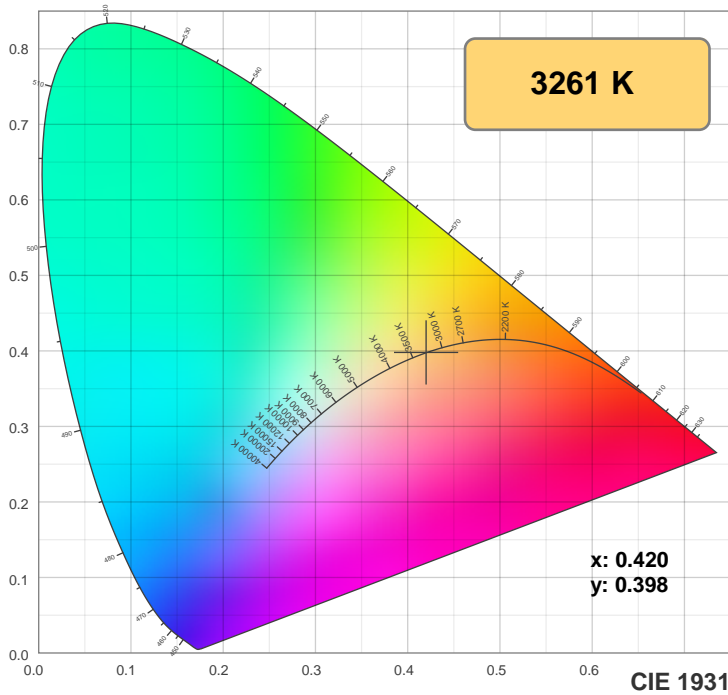
CIE 1931
x: 0.420
y: 0.398

Spectra

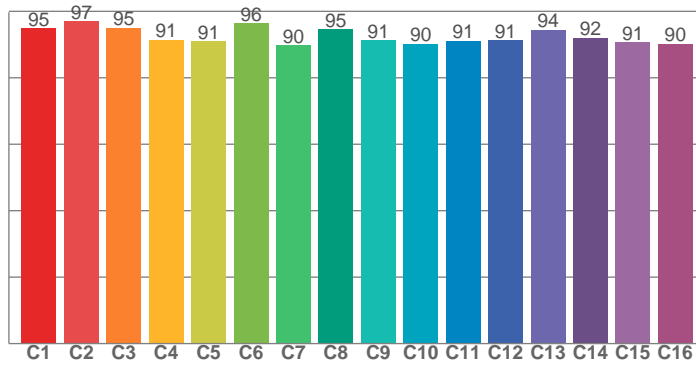


Power

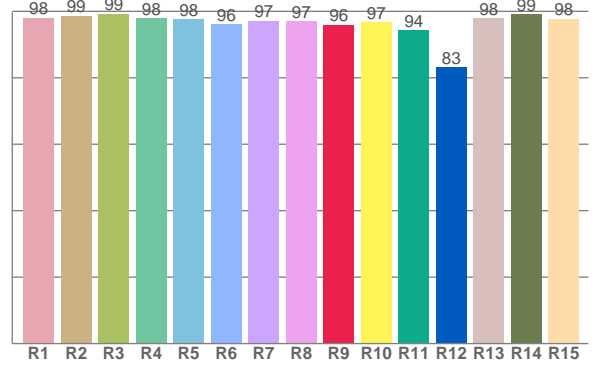




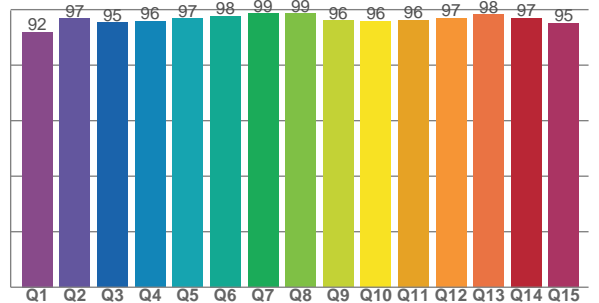
TM30: 92.7



CRI: 97.7 (R1-R8)



CQS: 96.0



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
98.1	98.7	99.3	97.9	97.7	96.2	97.1	97.1	95.9	96.8	94.4	83.2	97.9	99.2	97.8

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	97.0	95.1	91.4	91.0	96.4	89.7	94.6	91.3	90.2	91.2	91.3	94.4	92.0	90.6	90.2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92.0	96.7	95.3	95.8	96.7	97.6	98.6	98.6	96.1	95.9	96.3	97.0	98.3	97.0	95.1

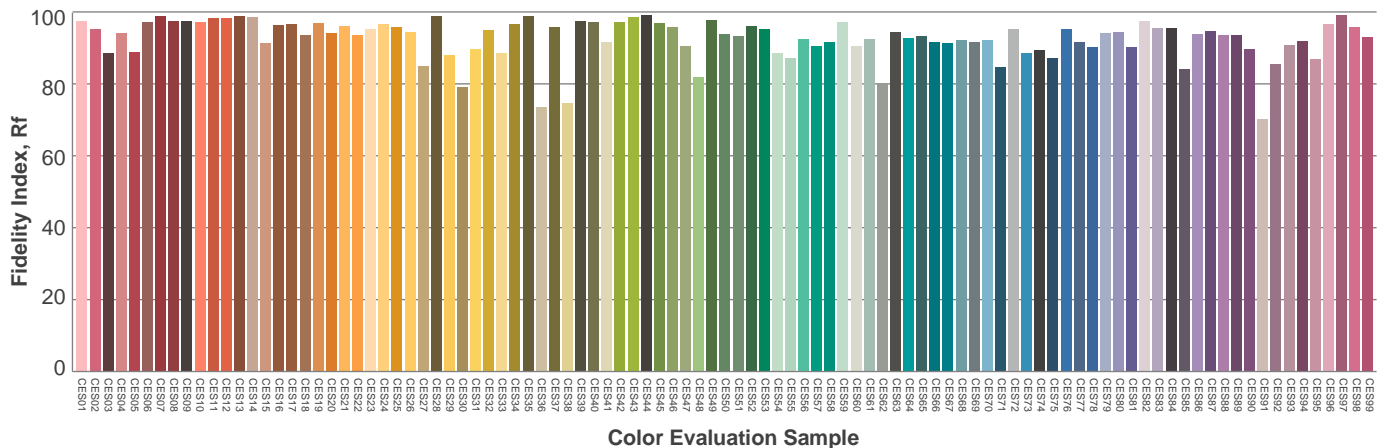
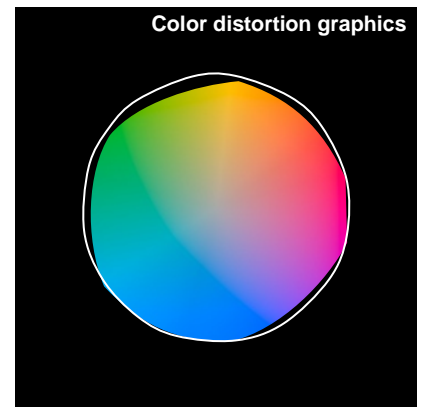
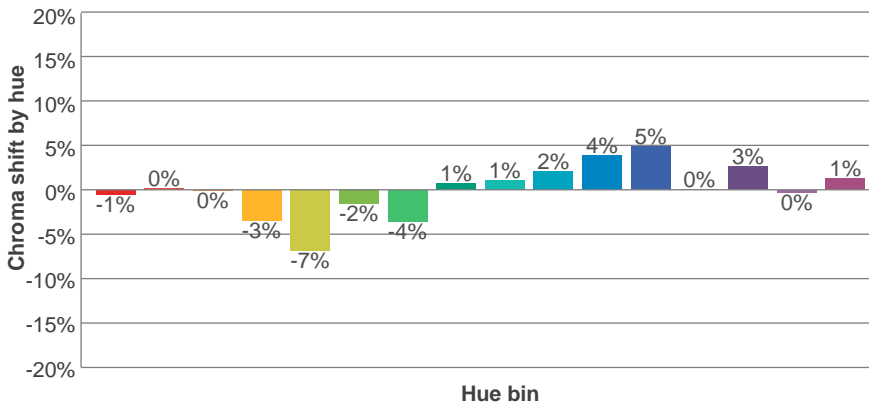
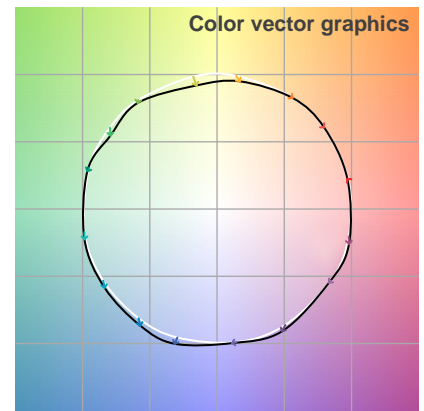
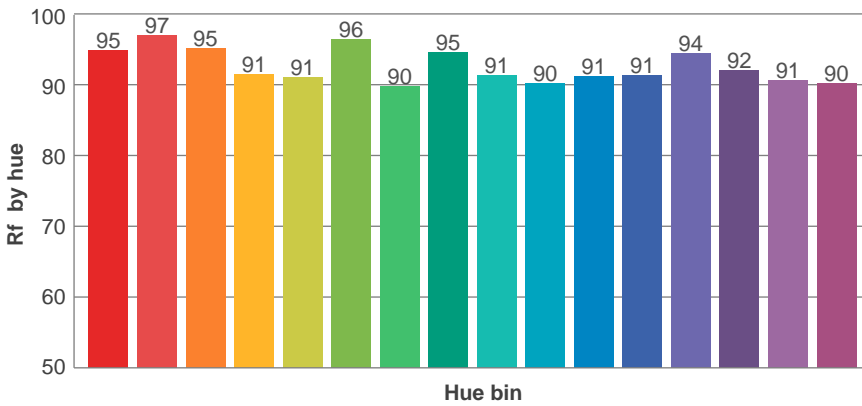
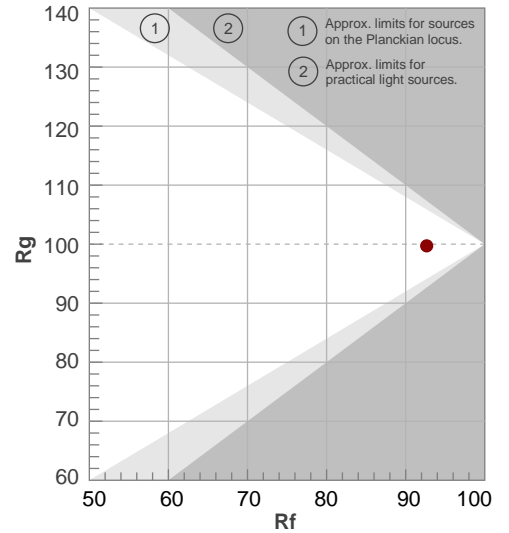
Color parameters

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
3261 K	97.7	95.9	92.7	99.7	96.0	0.420	0.398	0.242	0.344	0.0002

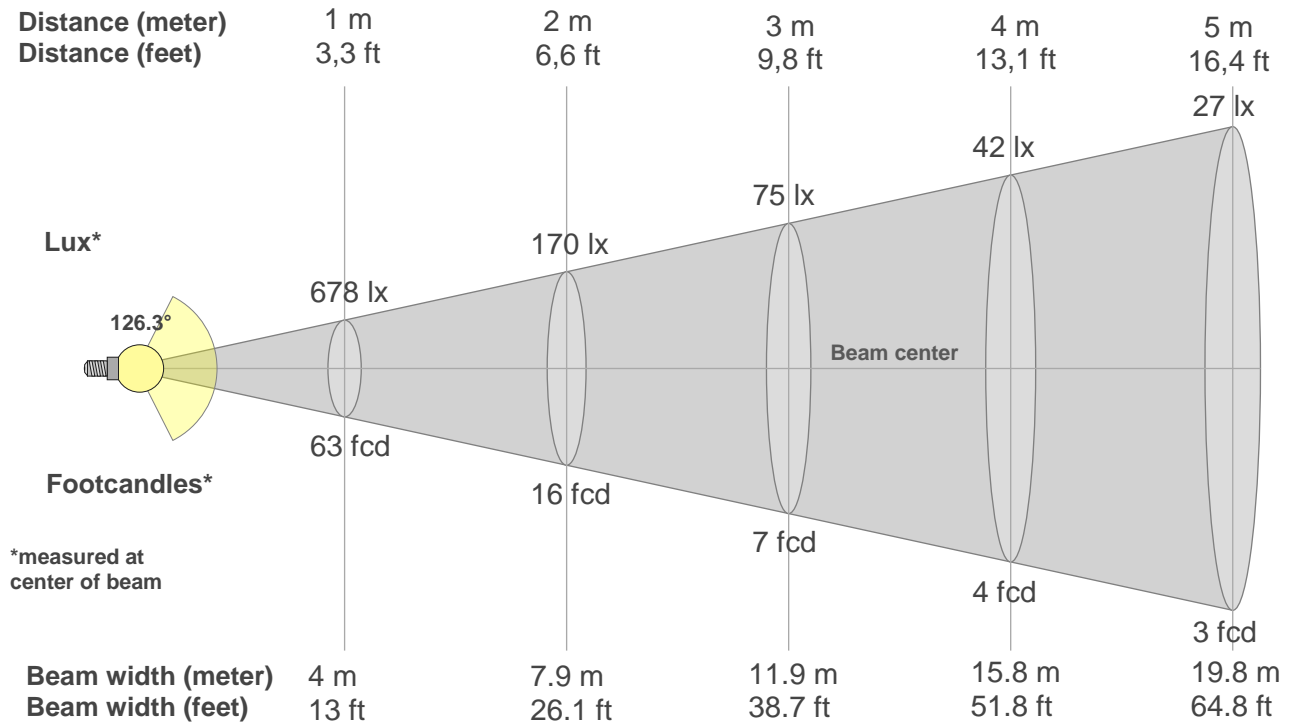
Rf 92.7
Fidelity index Rf

Rg 99.7
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	97	0%	-1%
3	95	0%	-1%
4	91	-3%	-3%
5	91	-7%	-1%
6	96	-2%	1%
7	90	-4%	5%
8	95	1%	3%
9	91	1%	5%
10	90	2%	5%
11	91	4%	4%
12	91	5%	-1%
13	94	0%	-4%
14	92	3%	-5%
15	91	0%	-2%
16	90	1%	-5%



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
678lx	170lx	75lx	42lx	27lx	19lx	14lx	11lx	8lx	7lx	6lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx	2lx
63fcd	15.8fcd	7fcd	3.9fcd	2.5fcd	1.8fcd	1.3fcd	1fcd	0.8fcd	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°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
678	666	639	596	537	463	377	280	177	77	14	5	4	4	3	3	4	4	3	4
100%	98%	94%	88%	79%	68%	56%	41%	26%	11%	2%	1%	1%	1%	1%	0%	1%	1%	0%	1%

Intensities in 90° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
678	672	650	612	564	509	447	383	320	258	201	150	107	72	46	25	12	6	4	3
100%	99%	96%	90%	83%	75%	66%	56%	47%	38%	30%	22%	16%	11%	7%	4%	2%	1%	1%	0%

Intensities in 180° c-plane

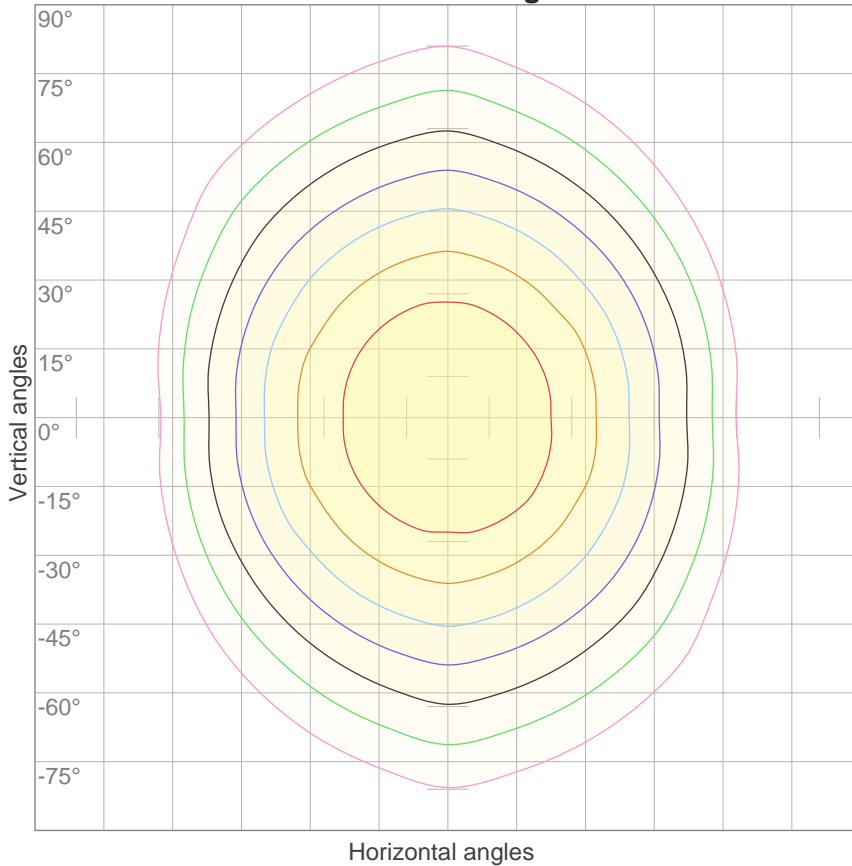
0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
678	667	641	598	540	466	378	278	173	75	22	15	11	8	6	6	5	4	4	4
100%	98%	95%	88%	80%	69%	56%	41%	26%	11%	3%	2%	2%	1%	1%	1%	1%	1%	1%	1%

Intensities in 270° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
678	673	649	613	565	510	448	384	319	258	203	153	111	76	49	29	16	8	5	5
100%	99%	96%	90%	83%	75%	66%	57%	47%	38%	30%	23%	16%	11%	7%	4%	2%	1%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
126.3°	205.5°	245.9°	62.1%	41.0%

ISO candela diagram



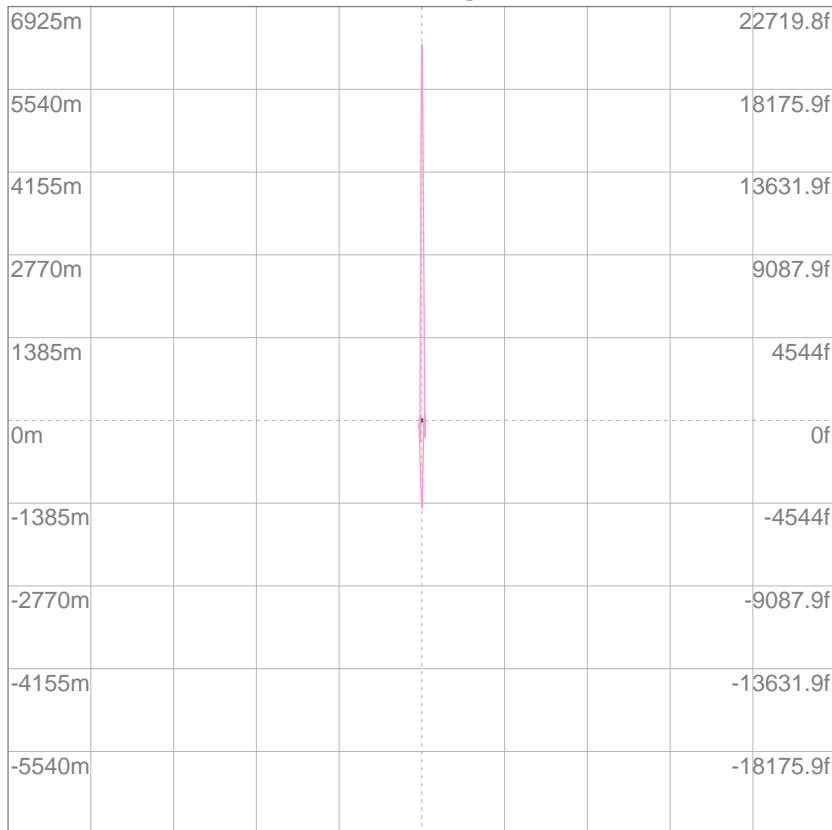
10%	68 cd
20%	136 cd
30%	204 cd
40%	271 cd
50%	339 cd
60%	407 cd
70%	475 cd
80%	543 cd
90%	611 cd

Conditions:

Number of c-planes: 8

Candela at center: 678 cd

ISO lux diagram



3%	0.204 lx
5%	0.339 lx
10%	0.678 lx
30%	2.04 lx
50%	3.39 lx

Conditions:

Number of c-planes: 8

Lux at center: 6.78 lx

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



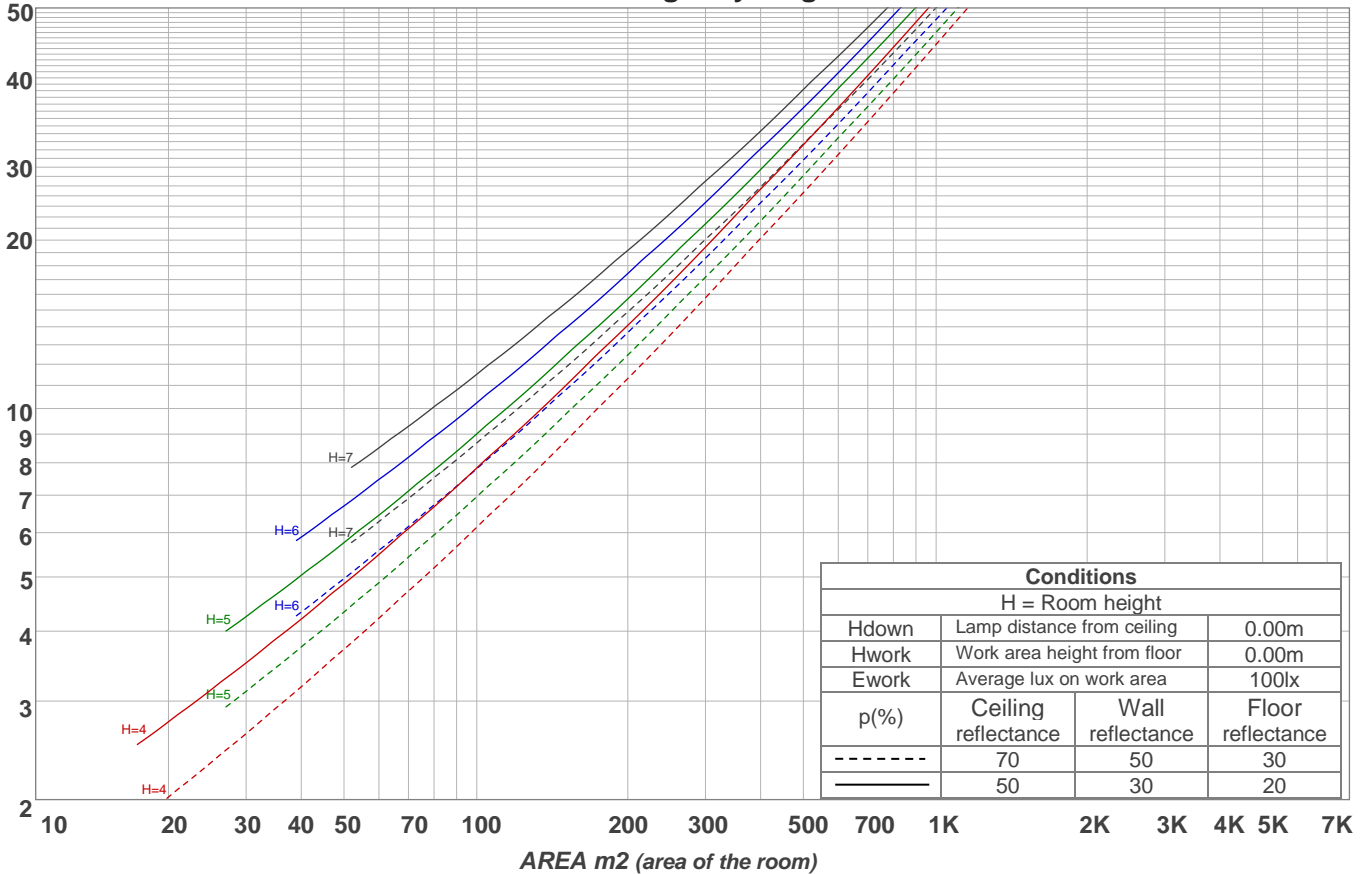
Light planning

Coefficients of Utilization

Ceiling reflectance	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Wall reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Floor reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0
RCR	(RCR: Room Cavity Ratio) Room Values are expressed as percentage of Lumens delivered to the task surface																	
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90
1	104	98	93	88	100	95	90	86	89	85	81	83	80	77	78	75	73	70
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	67	63	59	57
3	85	73	64	57	81	71	63	56	66	59	54	62	56	52	58	54	49	47
4	77	65	55	48	74	62	54	47	59	51	45	55	49	44	52	46	42	39
5	71	57	48	41	68	56	47	40	52	45	39	49	43	37	46	41	36	34
6	65	51	42	35	63	50	41	35	47	39	34	44	38	33	42	36	31	29
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28	26
8	56	42	34	27	54	41	33	27	39	32	26	37	30	26	35	29	25	23
9	52	39	30	25	50	38	30	24	36	29	24	34	28	23	32	26	22	20
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20	18

LAMPS (number of lamps)

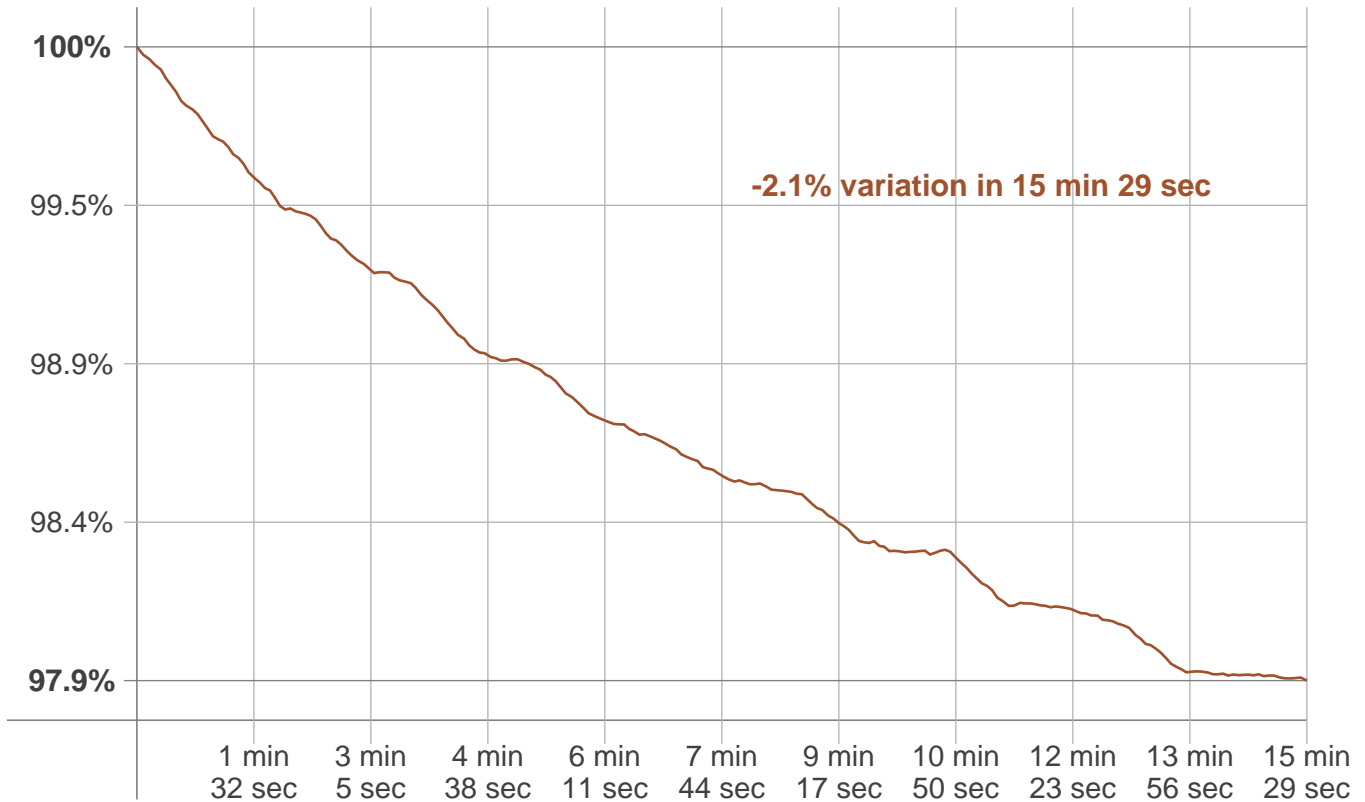
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
64.3 lm	185 lm	283 lm	349 lm	376 lm	363 lm	314 lm	242 lm	167 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
111 lm	71.4 lm	42.3 lm	22.6 lm	10.9 lm	4.91 lm	2.31 lm	1.12 lm	0.365 lm

Warmup curve



Warmup result

Warmup time:	15 min 29 sec
Warmup variation	-2.1%

Warmup conditions

Stable period:	15 min
Stable change max:	2.0%
Minimum time:	15 min

Color temperature change

CCT start	CCT change	CCT end
3258 K	+3 K	3261 K

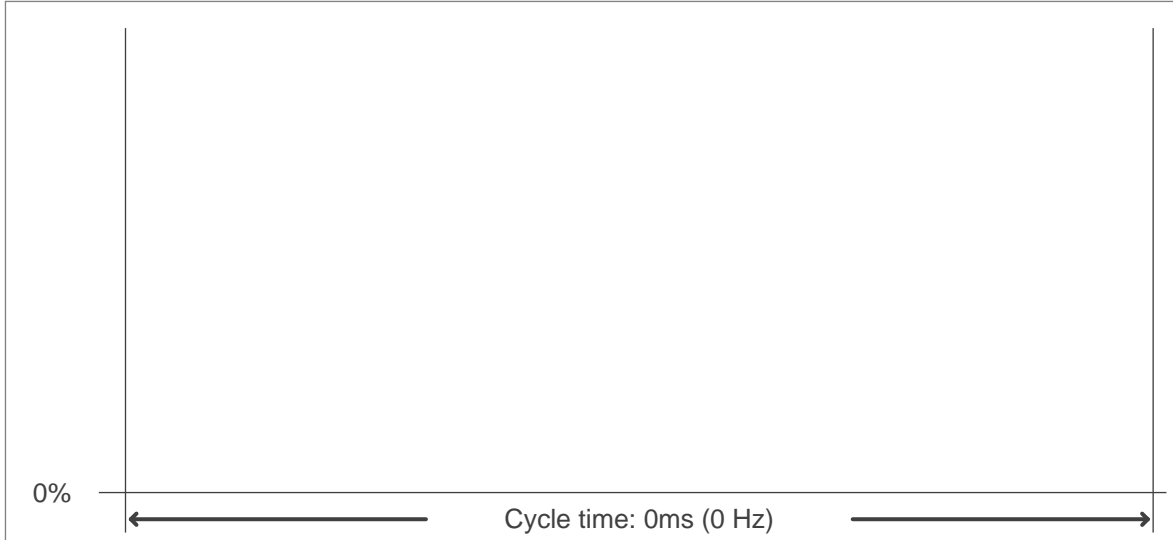
Output change

Output start	Output change	Output end
2661 lm	-51 lm	2610 lm

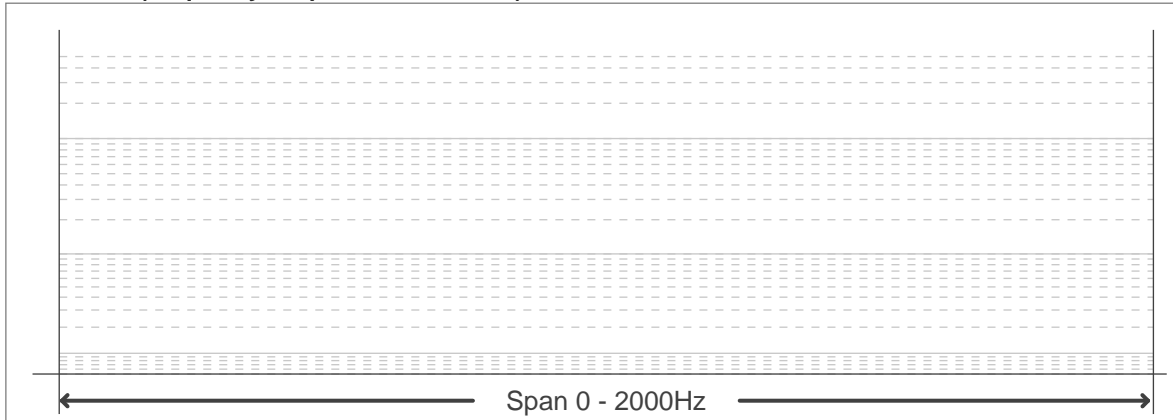
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	n/a Hz
Flicker index:	n/a
Flicker percentage:	n/a %
SVM: (Visual flicker)	n/a

Flicker conditions:

Sample rate:	0 samples/second
--------------	------------------