

Light efficiency:

107 Lumen/Watt

Output: 10087 lm

Light quality:

CRI: 83.7

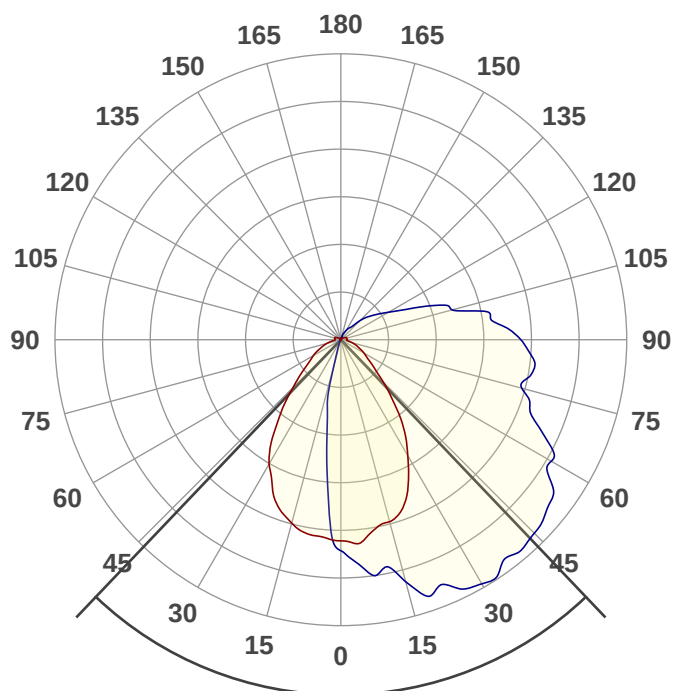
Peak: 4171 cd

Color temperature:

5244 K

Power: 94.6 W

PF: 0.99



Product name:

WPG-50K100W-S (Shield)

Date and time:

9/27/2019 1:44:20 PM

Beam angle

87.2°

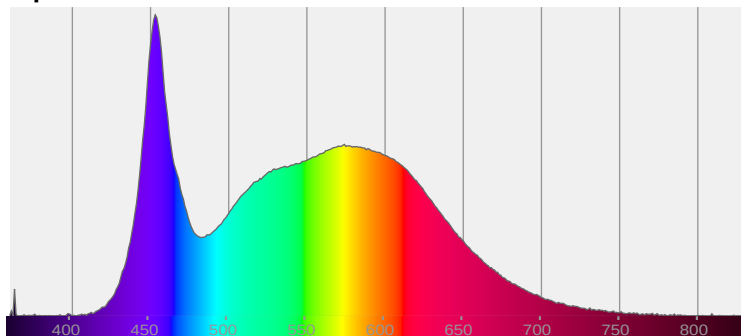


CIE 1931

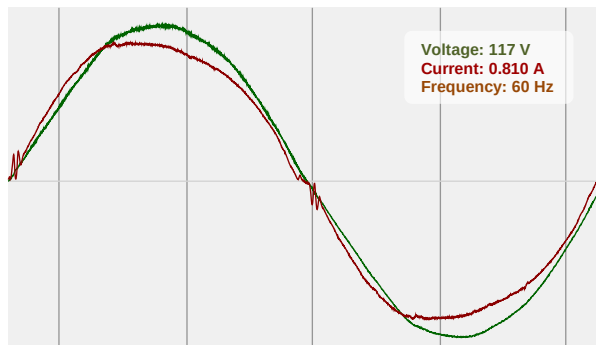
x: 0.339

y: 0.349

Spectra



Power



Voltage: 117 V
Current: 0.810 A
Frequency: 60 Hz



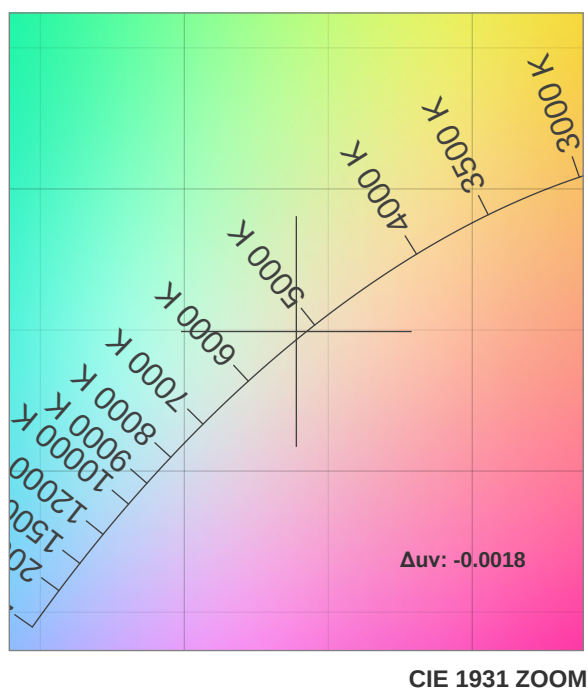
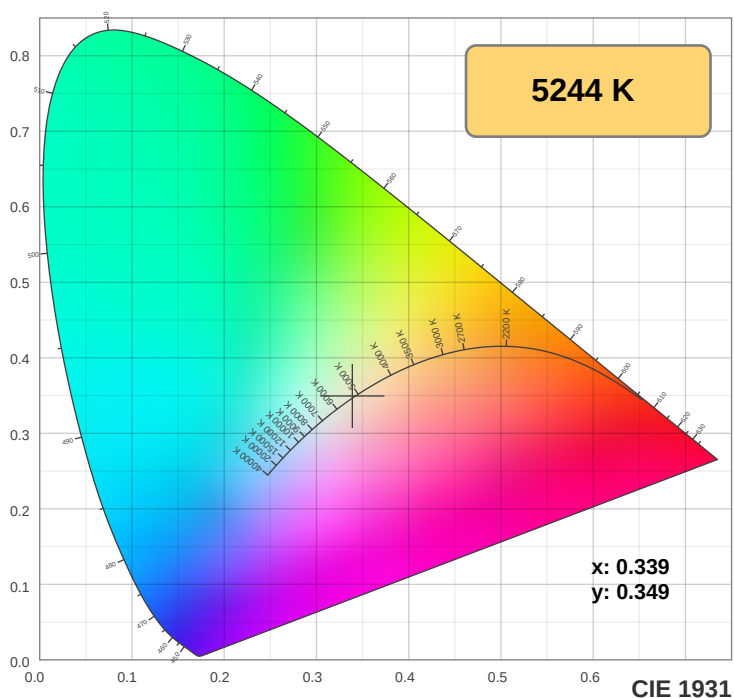
T 314.743.3067

F 314.972.6202

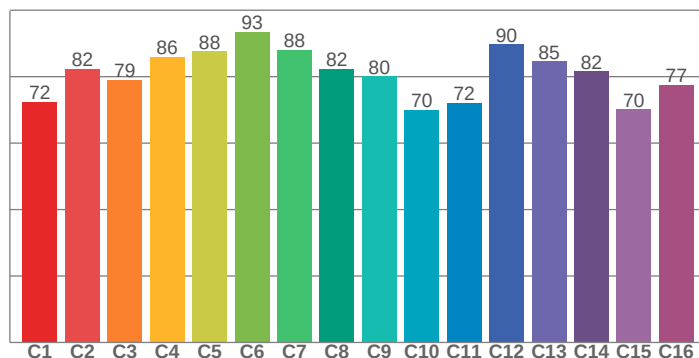
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

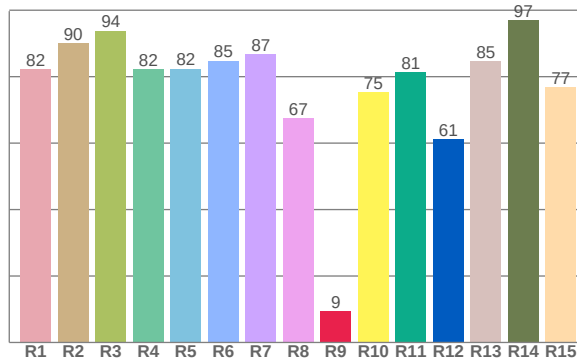
Color Specifications



TM30: 81.0



CRI: 83.7 (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
82.2	90.1	93.8	82.3	82.4	84.8	86.7	67.5	9.4	75.4	81.2	61.2	84.7	97.0	76.8

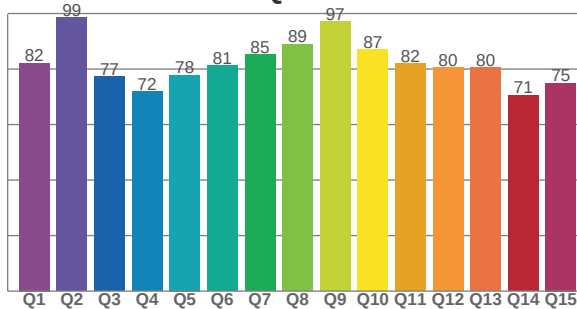
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
72.5	82.4	79.0	86.0	87.6	93.4	88.0	82.4	80.1	70.0	72.1	89.8	84.6	81.6	70.1	77.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.2	98.6	77.2	71.8	77.8	81.2	85.1	88.9	97.1	87.0	82.0	80.5	80.5	70.5	75.0

CQS: 80.7



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
5244 K	83.7	9.4	81.0	93.4	80.7	0.339	0.349	0.208	0.322	-0.0018



TM30 Report

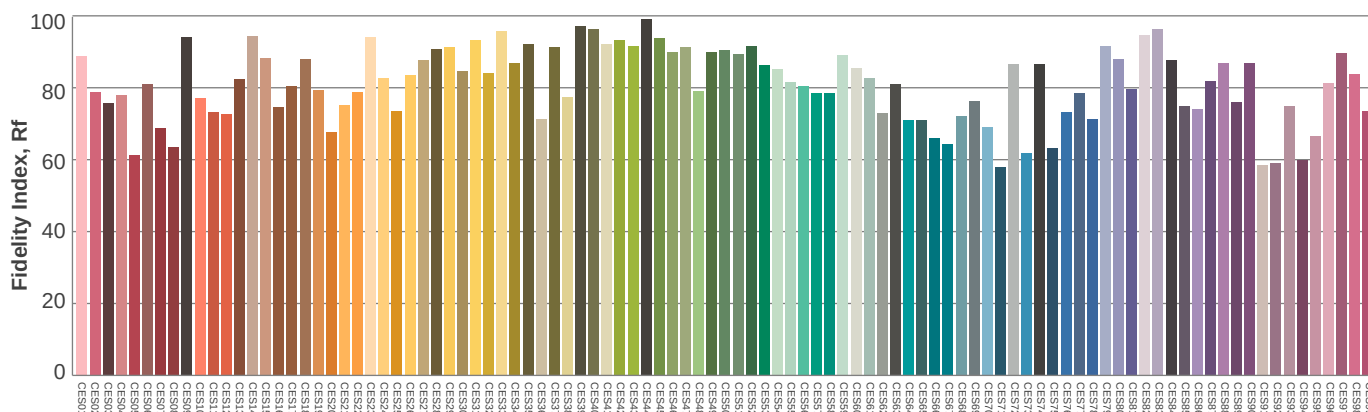
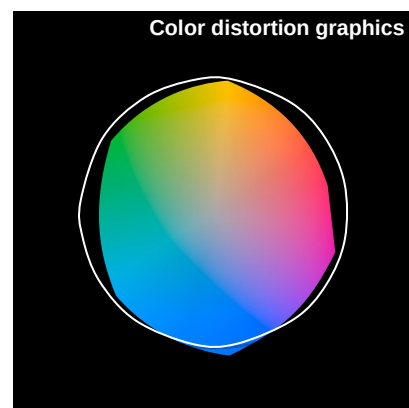
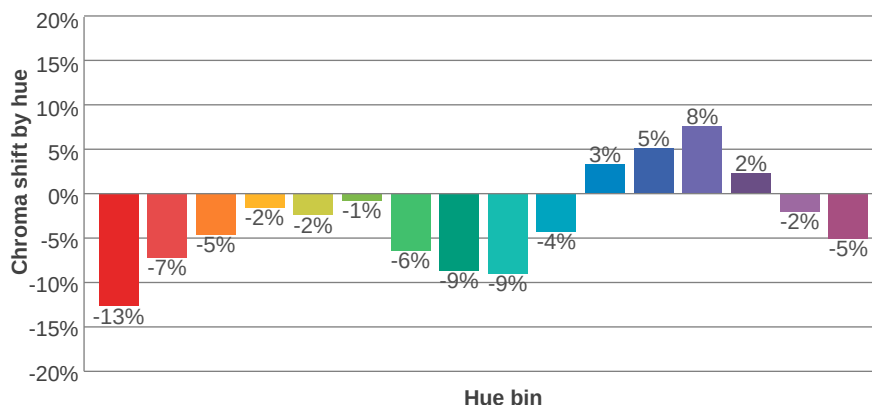
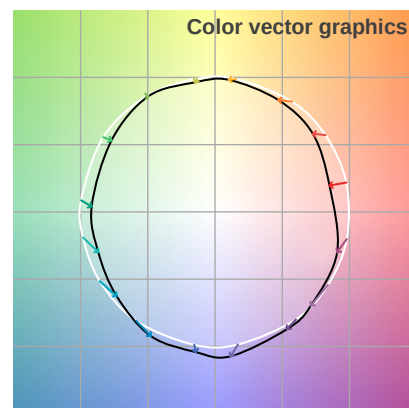
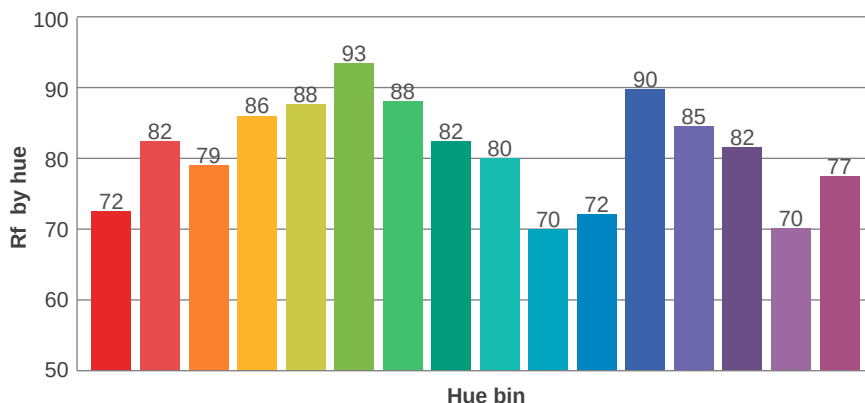
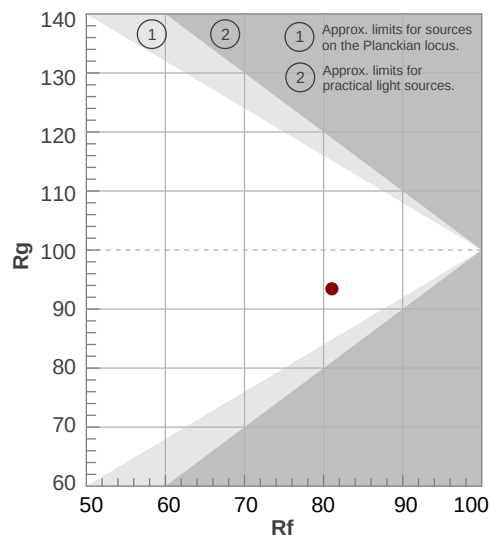
Rf 81.0

Fidelity index Rf

Rg 93.4

Gamut index Rg

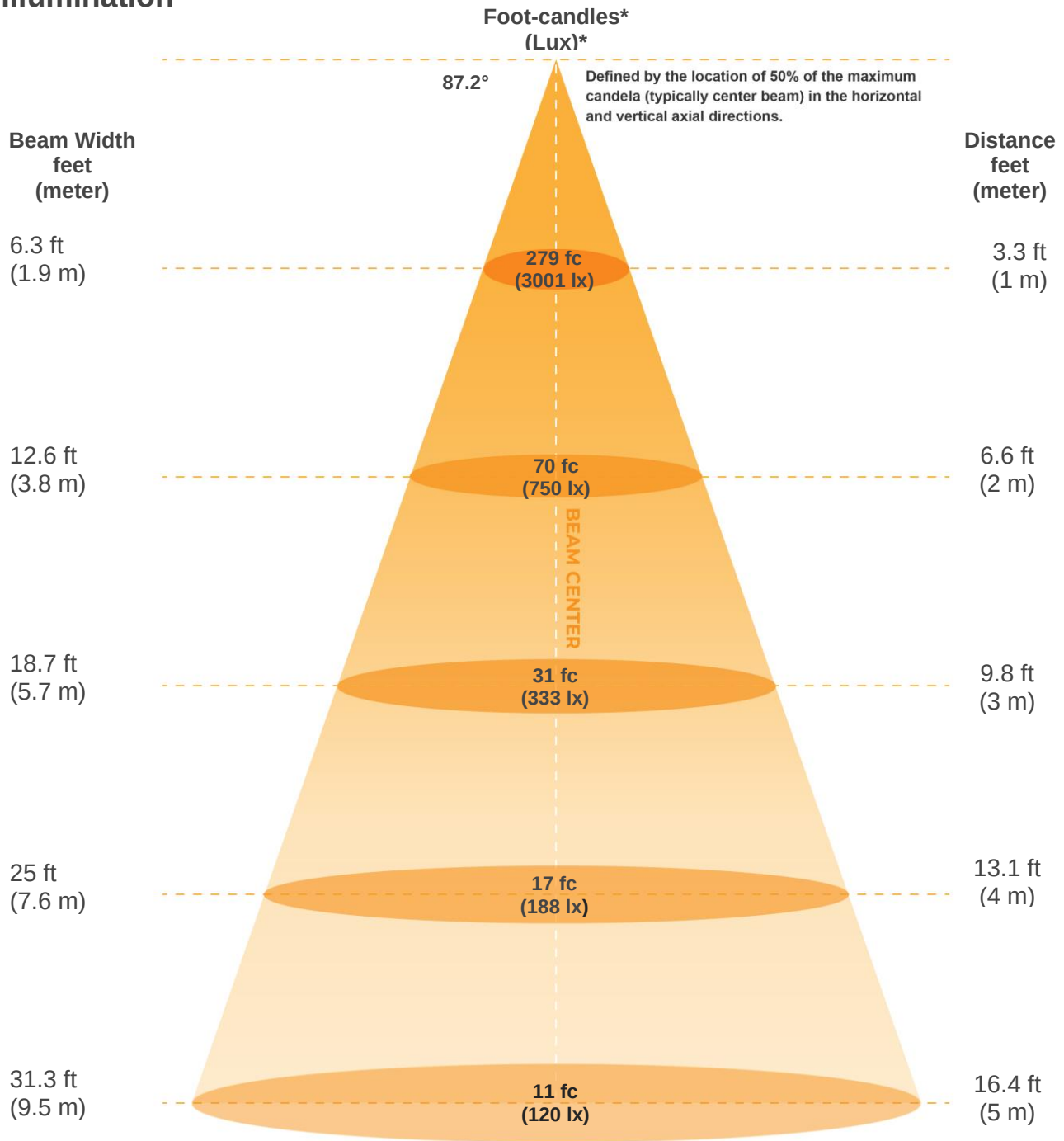
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	72	-13%	0%
2	82	-7%	6%
3	79	-5%	9%
4	86	-2%	5%
5	88	-2%	2%
6	93	-1%	-1%
7	88	-6%	-1%
8	82	-9%	3%
9	80	-9%	13%
10	70	-4%	16%
11	72	3%	15%
12	90	5%	2%
13	85	8%	-7%
14	82	2%	-10%
15	70	-2%	-20%
16	77	-5%	-11%



Color Evaluation Sample



Illumination



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
3001lx	750lx	333lx	188lx	120lx	83lx	61lx	47lx	37lx	30lx	25lx	21lx	18lx	15lx	13lx	12lx	10lx	9lx	8lx	8lx
278.8fc	69.7fcd	31fcd	17.4fcd	11.2fcd	7.7fcd	5.7fcd	4.4fcd	3.4fcd	2.8fcd	2.3fcd	1.9fcd	1.6fcd	1.4fcd	1.2fcd	1.1fcd	1fcd	0.9fcd	0.8fcd	0.7fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
87.2°	143.2°	182.3°	52.7%	35.1%



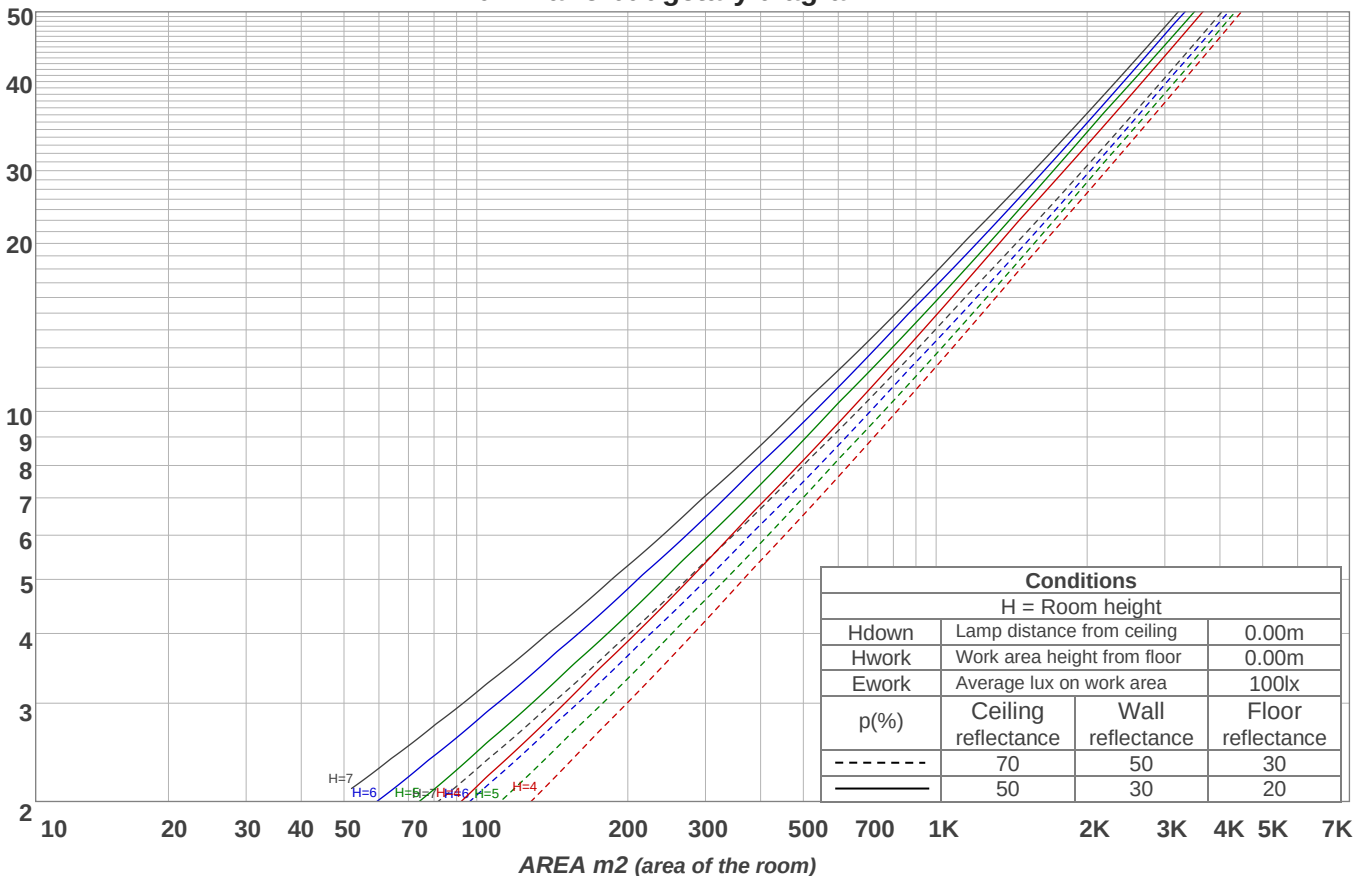
Light Planning

Coefficients of Utilization

Ceiling reflectance	80				70				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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	82
1	101	95	89	84	97	91	86	81	83	79	76	76	73	70	70	67	65	62
2	91	81	73	67	86	78	71	64	71	65	60	65	60	56	60	56	52	49
3	82	71	61	54	78	68	59	53	62	55	49	57	51	46	52	47	43	40
4	75	62	53	45	71	60	51	44	55	47	42	50	44	39	46	41	37	34
5	69	55	46	39	65	53	44	38	49	41	36	45	39	34	41	36	32	29
6	64	50	40	34	60	48	39	33	44	37	31	41	34	29	38	32	28	25
7	59	45	36	29	56	43	35	29	40	33	27	37	31	26	34	29	25	22
8	55	41	32	26	52	39	31	26	37	29	24	34	28	23	32	26	22	20
9	51	37	29	23	49	36	28	23	34	27	22	31	25	21	29	24	20	18
10	48	34	26	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16

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°
261 lm	641 lm	929 lm	1107 lm	1202 lm	1179 lm	1105 lm	996 lm	899 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
695 lm	479 lm	289 lm	166 lm	83.2 lm	37.2 lm	15.1 lm	3.03 lm	0.559 lm

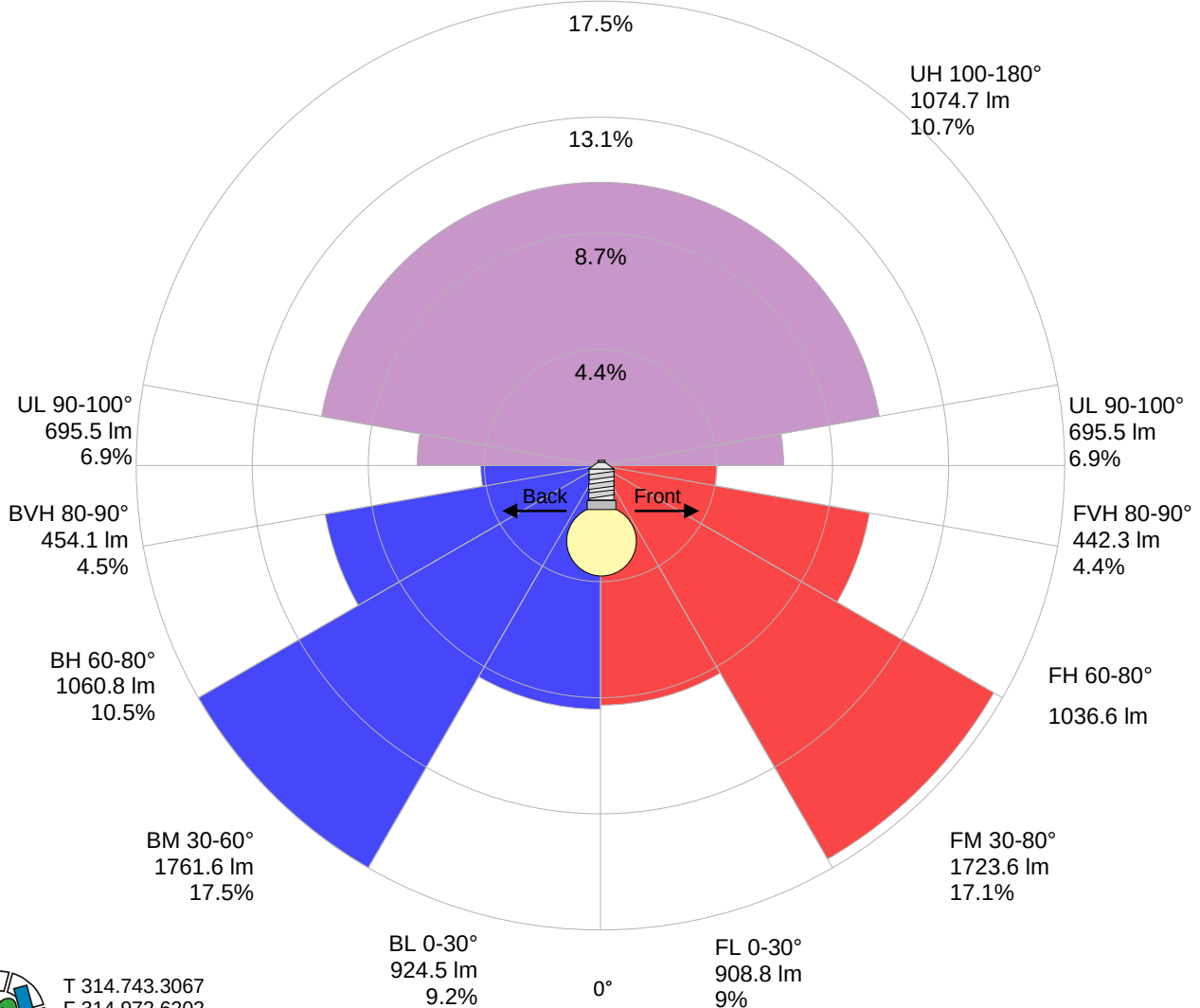


Road Report

LCS table

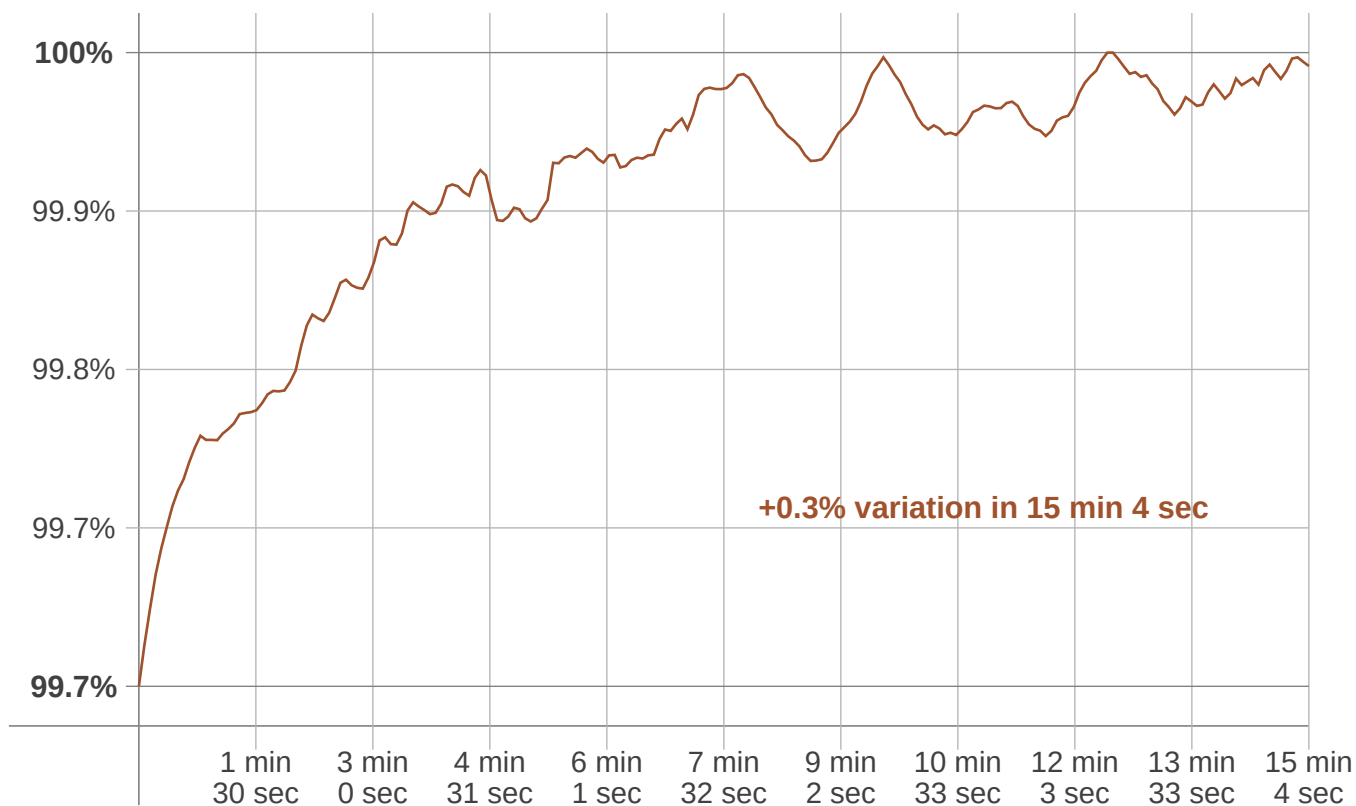
BUG rating:	B3 U5 G3	
Forward light	Lumens	Lumens %
Low(0-30):	908.8	9%
Medium(30-60):	1723.6	17.1%
High(60-80):	1036.6	10.3%
Very high(80-90):	442.3	4.4%
Back light		
Low(0-30):	924.5	9.2%
Medium(30-60):	1761.6	17.5%
High(60-80):	1060.8	10.5%
Very high(80-90):	454.1	4.5%
Uplight		
Low(90-100):	695.5	6.9%
High(100-180):	1074.7	10.7%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	15 min 4 sec
Warmup variation	+0.3%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5246 K	-2 K	5244 K

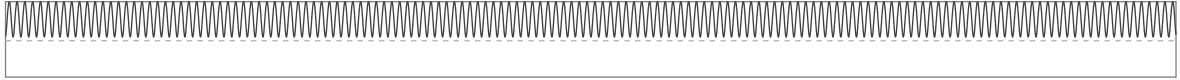
Output change

Output start	Output change	Output end
10062 lm	+25 lm	10087 lm

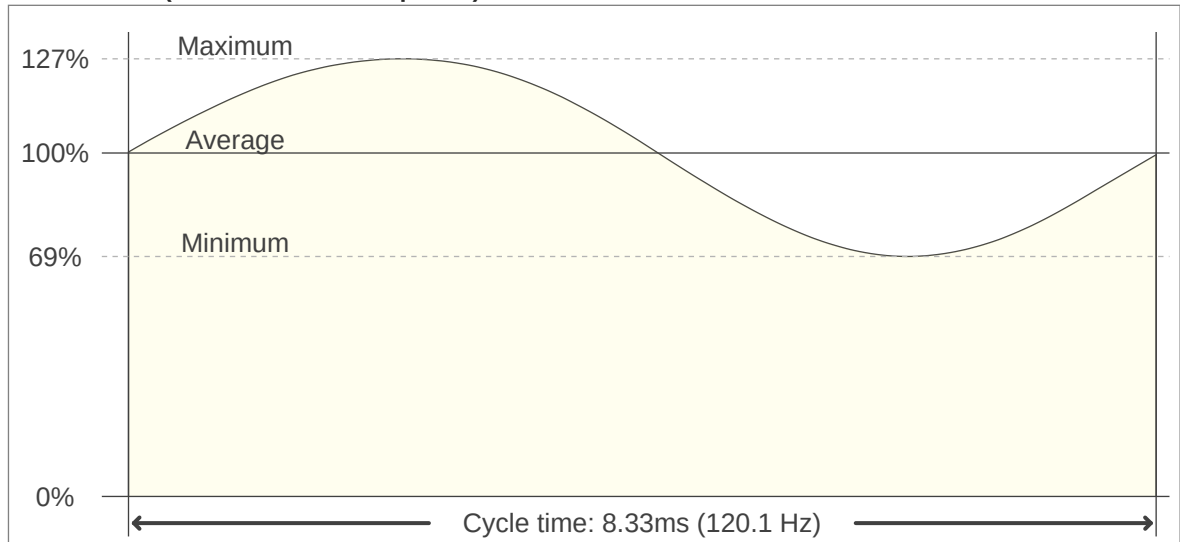


Flicker

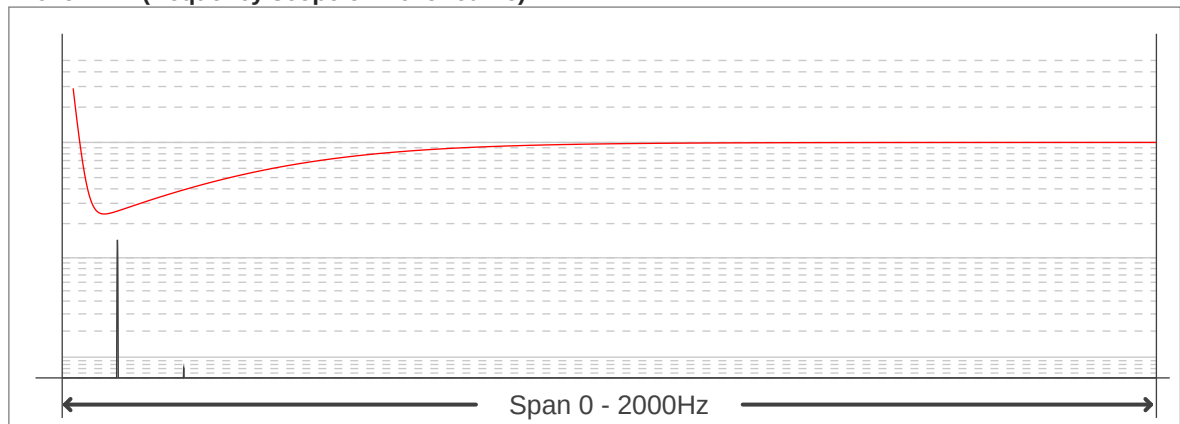
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	120.12 Hz
Flicker index:	0.09
Flicker percentage:	29.24 %
SVM: (Visual flicker)	1.05

Flicker conditions:

Sample rate:	40000 samples/second
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