

Light efficiency:

113 Lumen/Watt

Output: 2183 lm

Light quality:

CRI: 86.5

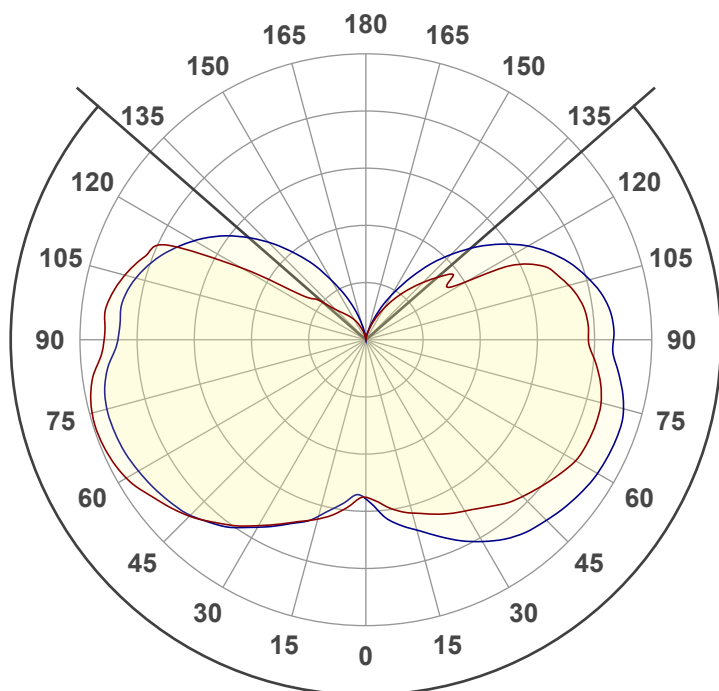
Peak: 242 cd

Color temperature:

5225 K

Power: 19.4 W

PF: 0.99



Product name:

VTAJ-50K20-O

Date and time:

10/6/2022 2:20:07 PM

Beam angle

262.2°

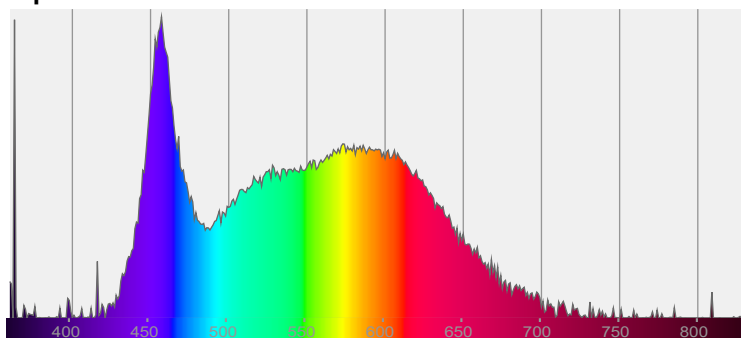


CIE 1931

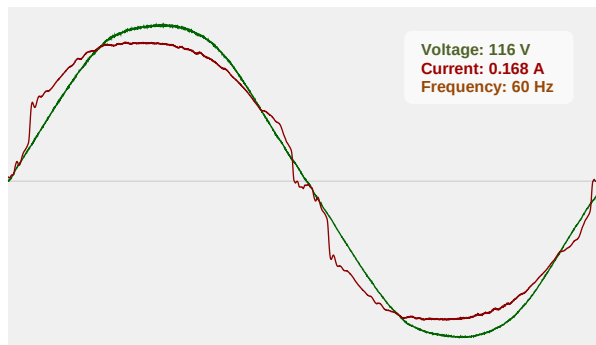
x: 0.339

y: 0.348

Spectra



Power



Voltage: 116 V
Current: 0.168 A
Frequency: 60 Hz



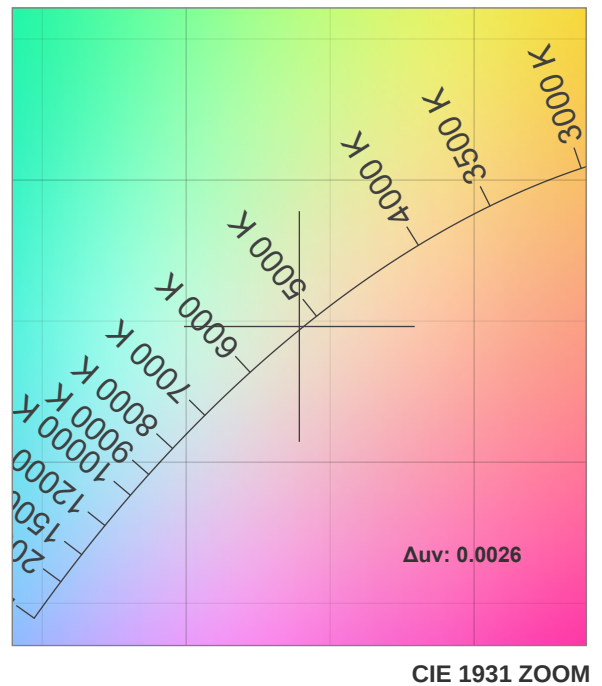
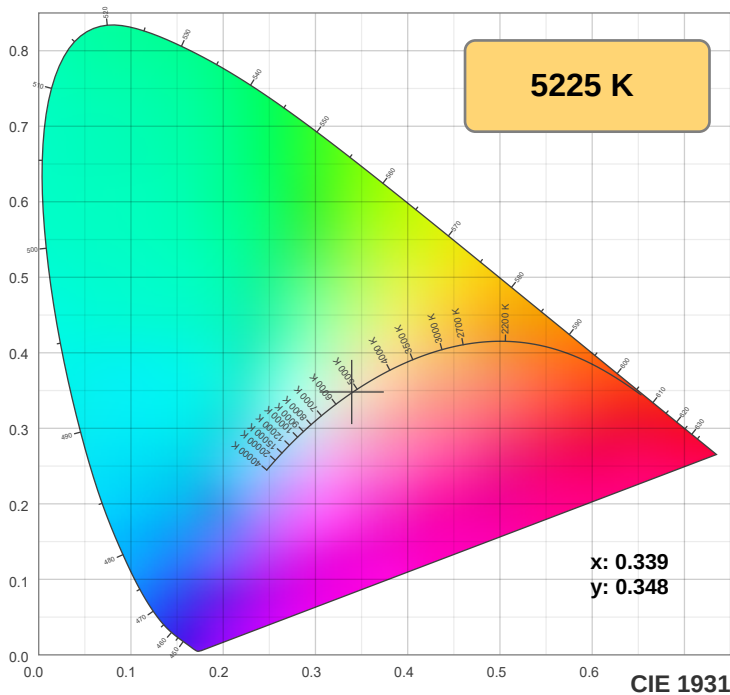
T 314.743.3067

F 314.972.6202

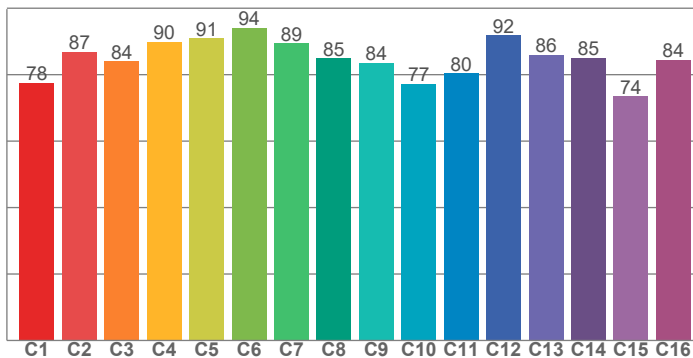
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

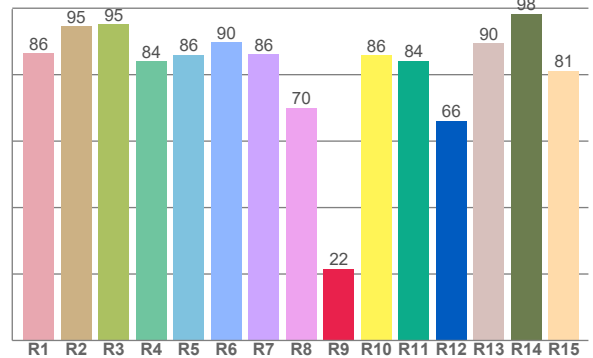
Color Specifications



TM30: 85.1



CRI: 86.5 (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
86.4	94.6	95.2	84.0	86.0	89.8	86.2	70.1	21.6	85.9	84.2	66.1	89.5	98.3	81.1

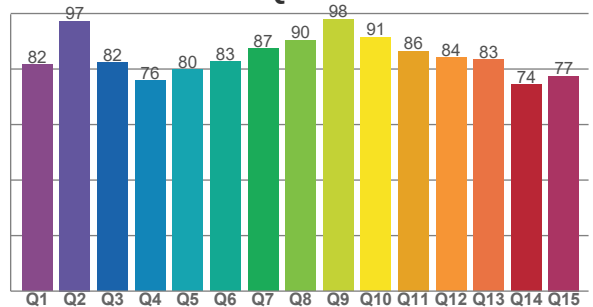
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.6	86.9	84.1	89.8	90.9	94.1	89.4	84.9	83.5	77.2	80.5	91.8	86.0	85.0	73.5	84.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81.7	97.3	82.4	75.8	79.8	82.6	87.3	90.3	98.0	91.4	86.5	84.1	83.4	74.4	77.5

CQS: 83.3



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
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
5225 K	86.5	21.6	85.1	93.9	83.3	0.339	0.348	0.209	0.321	0.0026



TM30 Report

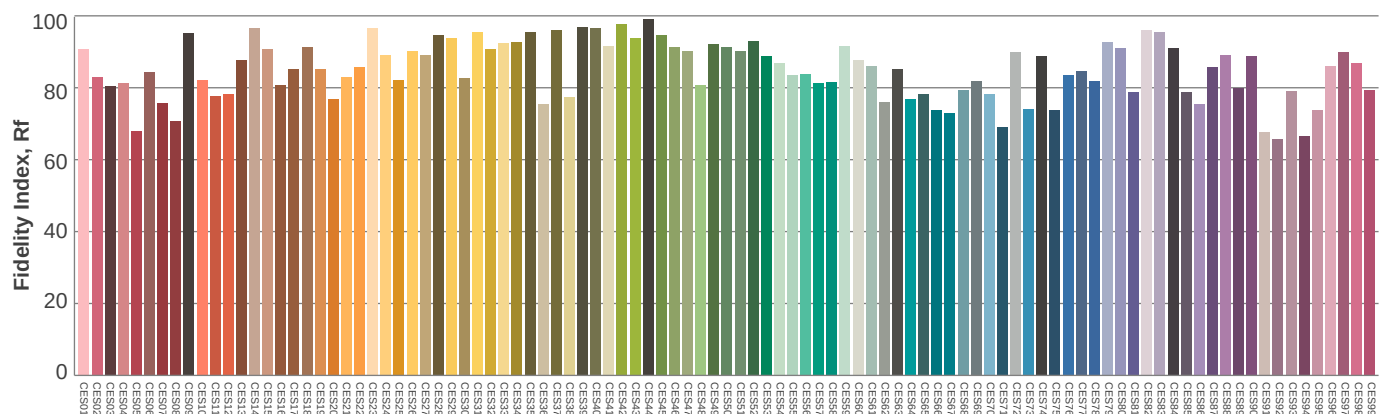
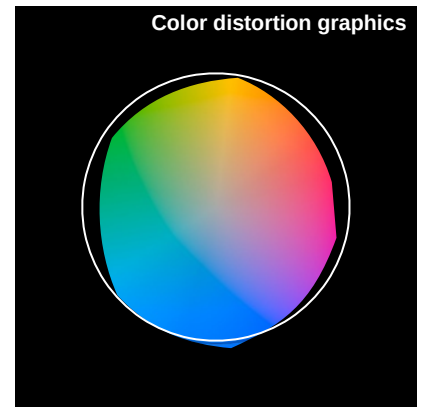
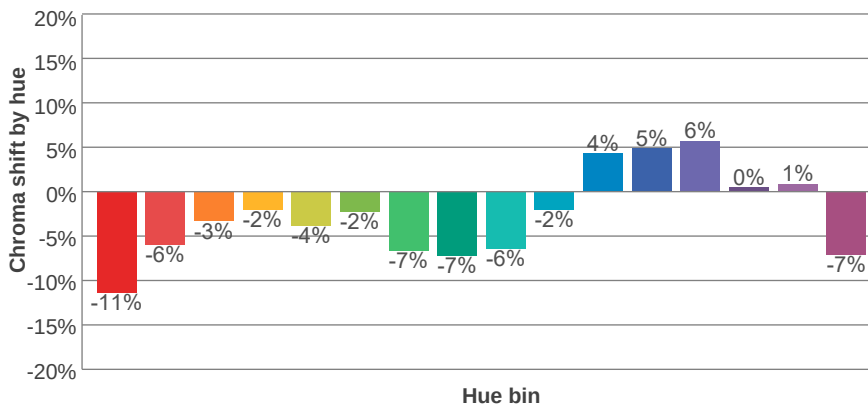
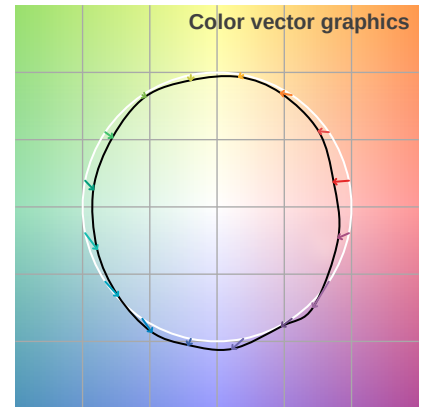
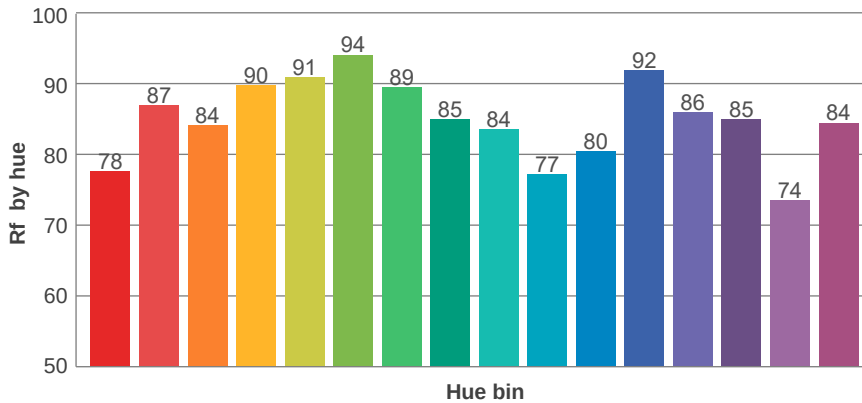
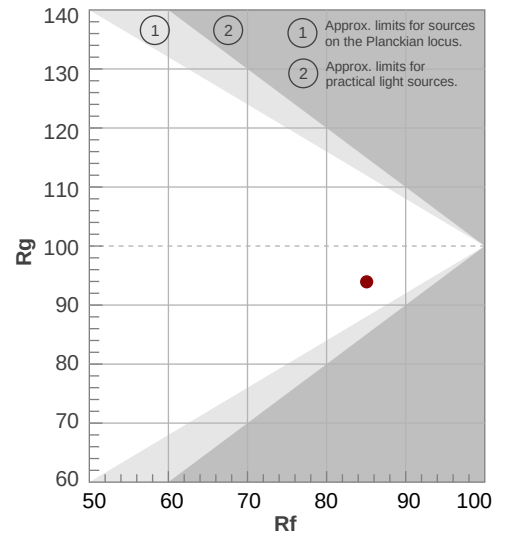
Rf 85.1

Fidelity index Rf

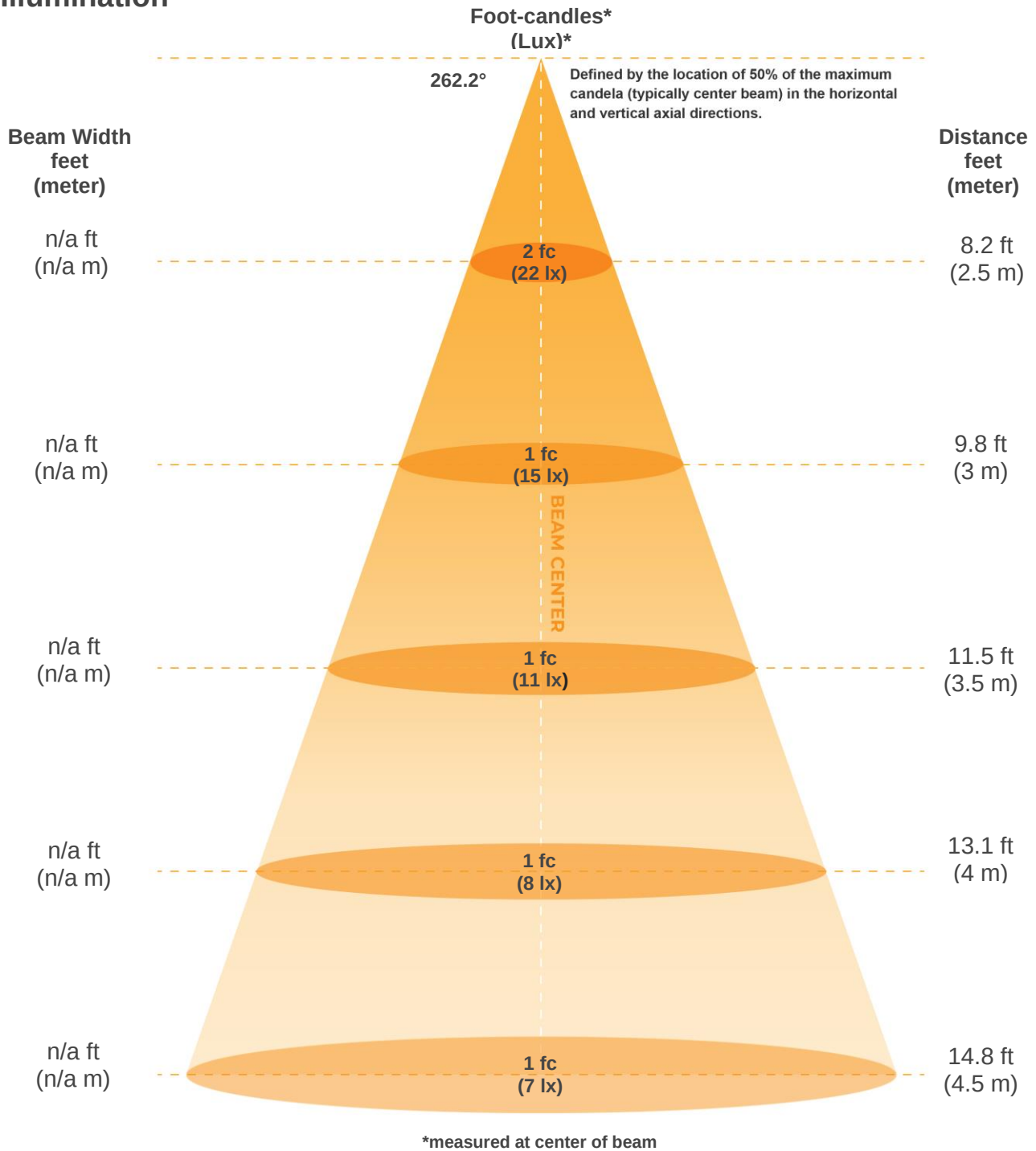
Rg 93.9

Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	78	-11%	1%
2	87	-6%	5%
3	84	-3%	8%
4	90	-2%	3%
5	91	-4%	1%
6	94	-2%	-1%
7	89	-7%	0%
8	85	-7%	5%
9	84	-6%	13%
10	77	-2%	14%
11	80	4%	11%
12	92	5%	-1%
13	86	6%	-9%
14	85	0%	-9%
15	74	1%	-22%
16	84	-7%	-5%



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
136lx	34lx	15lx	8lx	5lx	4lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx
12.6fcd	3.2fcd	1.4fcd	0.8fcd	0.5fcd	0.4fcd	0.3fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd	0fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
262.2°	315.5°	335.3°	28.3%	15.4%



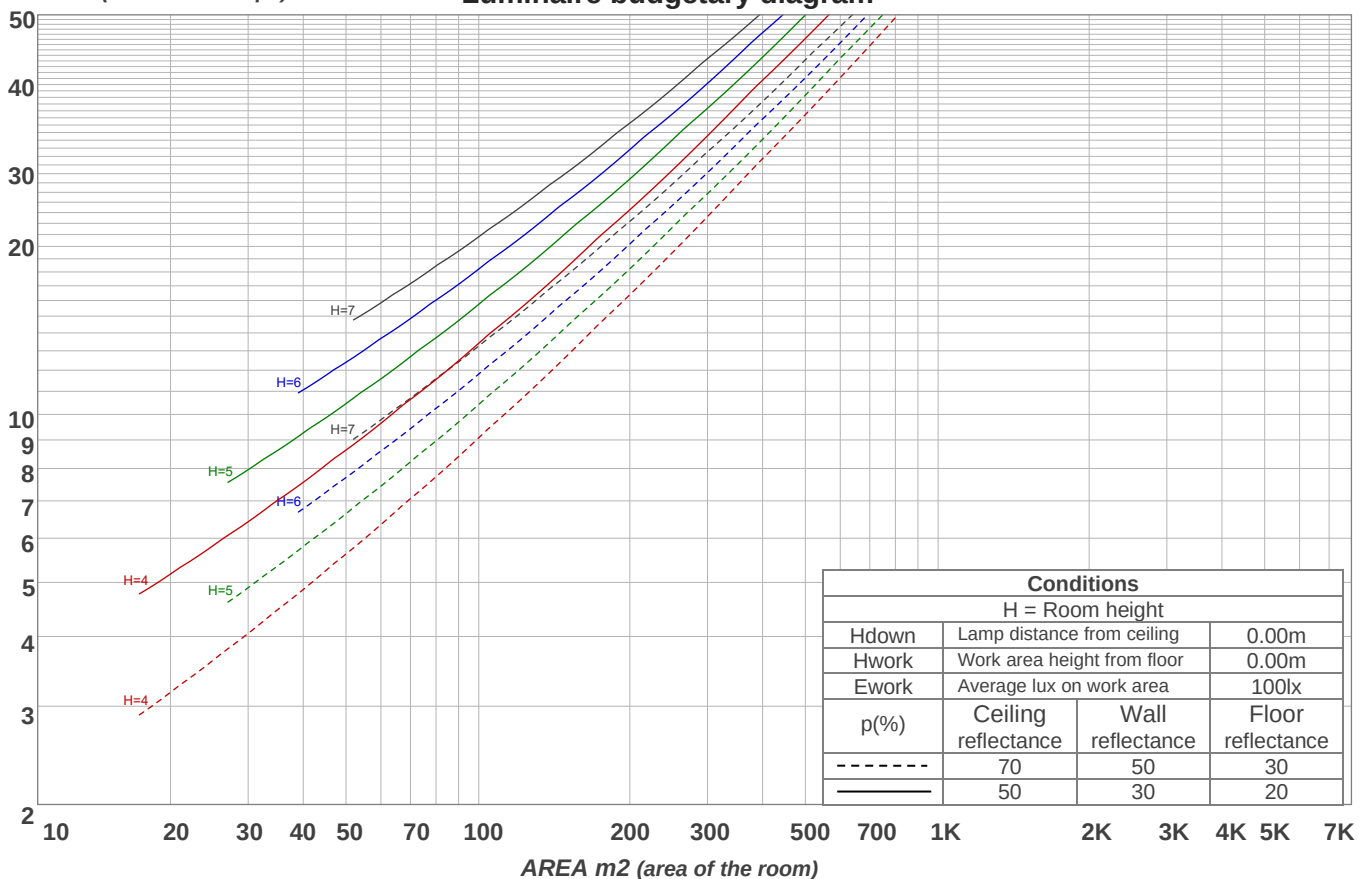
Light Planning

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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	60
1	95	88	82	76	88	82	76	71	70	66	62	59	56	53	49	47	44	39
2	84	74	65	58	77	68	61	54	58	52	47	49	44	40	40	37	33	29
3	75	63	54	46	69	58	50	43	50	43	37	42	36	32	34	30	26	22
4	68	55	45	37	63	51	42	35	43	36	30	36	30	26	29	25	21	17
5	62	48	38	31	57	45	36	29	38	31	25	32	26	21	26	21	17	14
6	57	43	33	26	52	40	31	25	34	27	21	28	22	18	23	18	15	12
7	52	38	29	23	48	36	27	21	30	23	18	25	20	15	21	16	13	10
8	48	34	26	20	45	32	24	18	27	21	16	23	18	13	19	14	11	9
9	45	31	23	17	42	29	21	16	25	19	14	21	16	12	17	13	10	7
10	42	29	21	15	39	27	19	14	23	17	12	19	14	10	16	12	9	7

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°
13.8 lm	45.1 lm	80.8 lm	121 lm	161 lm	196 lm	223 lm	237 lm	234 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
227 lm	209 lm	173 lm	124 lm	79.4 lm	41.3 lm	15.7 lm	3.24 lm	0.201 lm

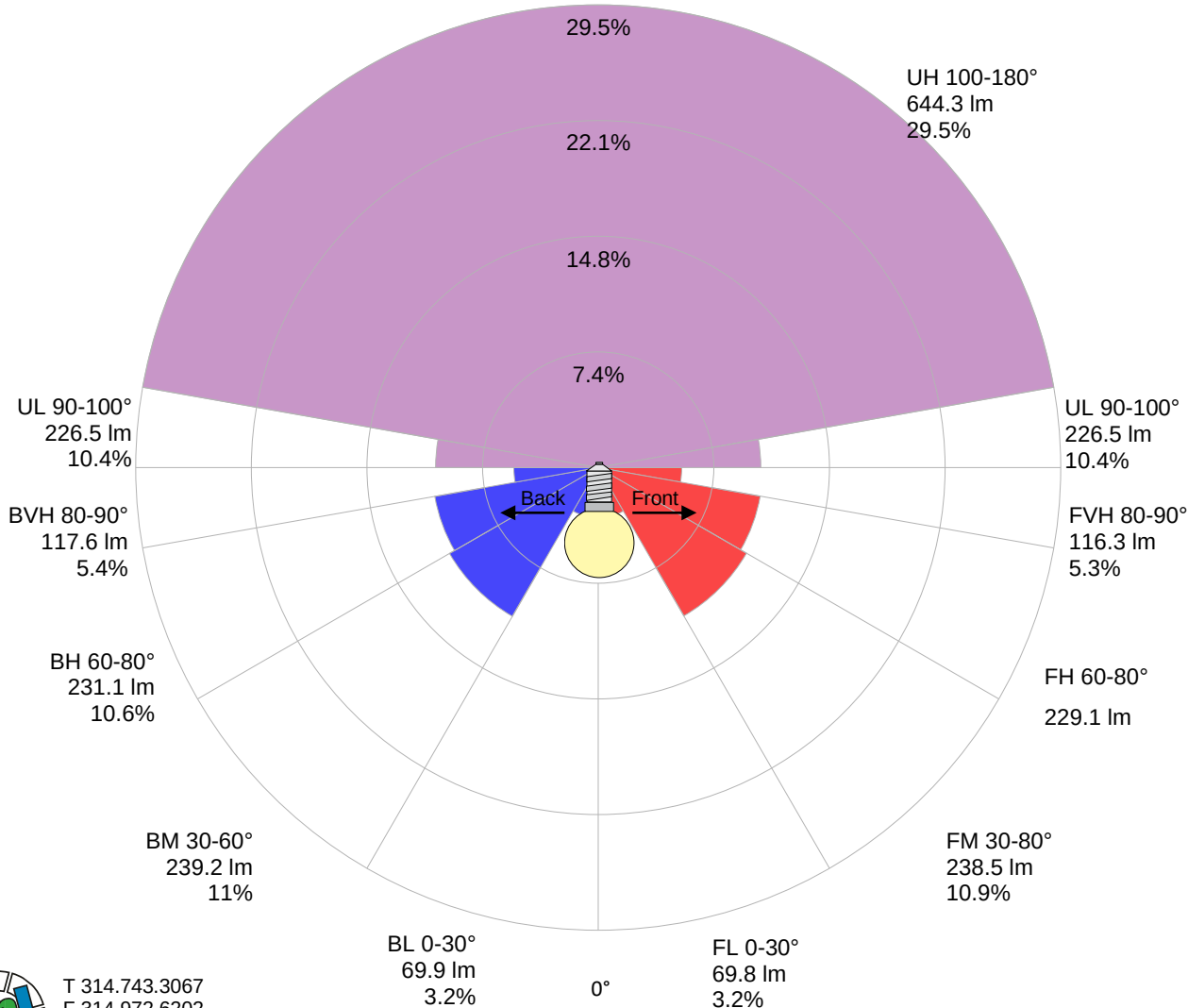


Road Report

LCS table

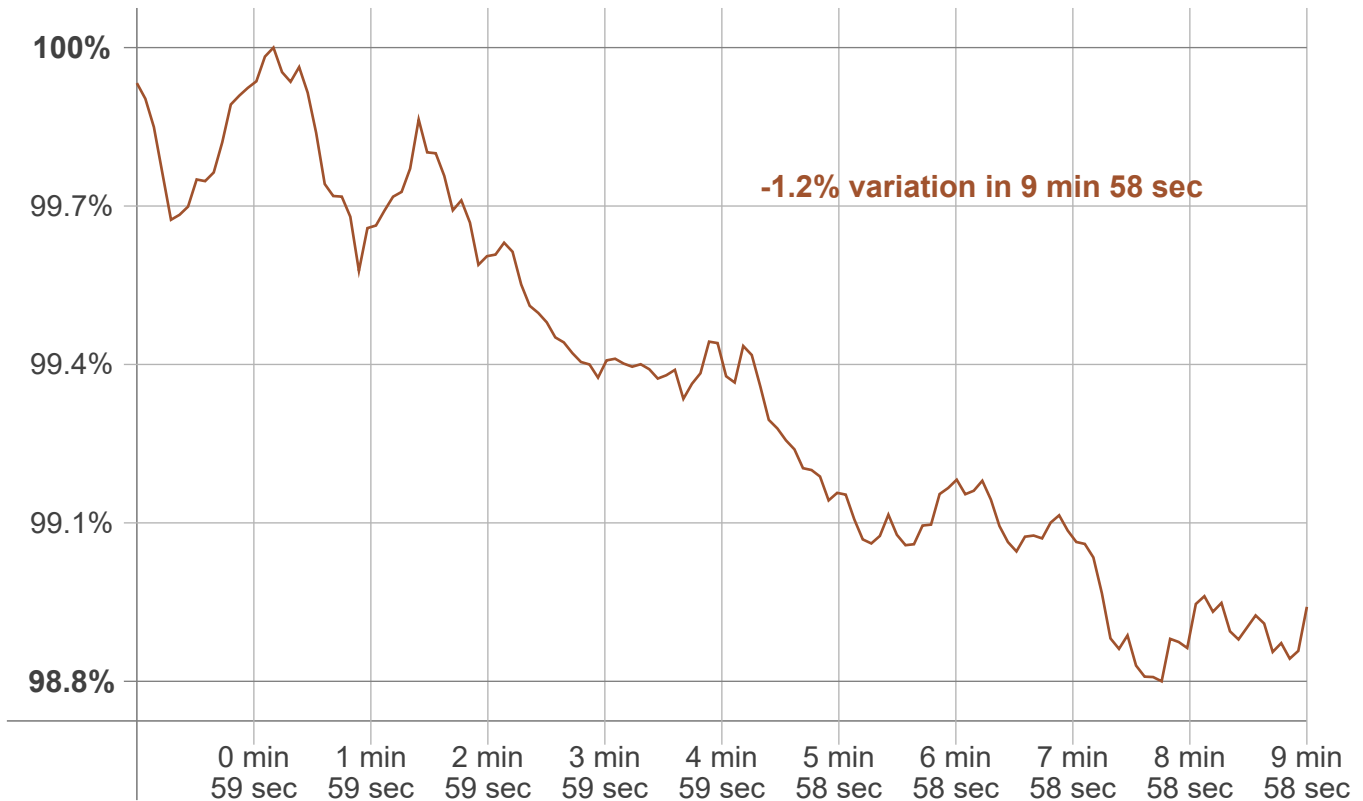
BUG rating:	B1 U4 G2	
Forward light	Lumens	Lumens %
Low(0-30):	69.8	3.2%
Medium(30-60):	238.5	10.9%
High(60-80):	229.1	10.5%
Very high(80-90):	116.3	5.3%
Back light		
Low(0-30):	69.9	3.2%
Medium(30-60):	239.2	11%
High(60-80):	231.1	10.6%
Very high(80-90):	117.6	5.4%
Uplight		
Low(90-100):	226.5	10.4%
High(100-180):	644.3	29.5%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	Not completed
Warmup variation	-1.2%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5221 K	+4 K	5225 K

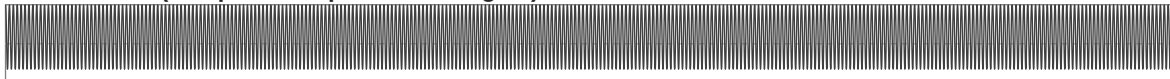
Output change

Output start	Output change	Output end
2200 lm	-17 lm	2183 lm

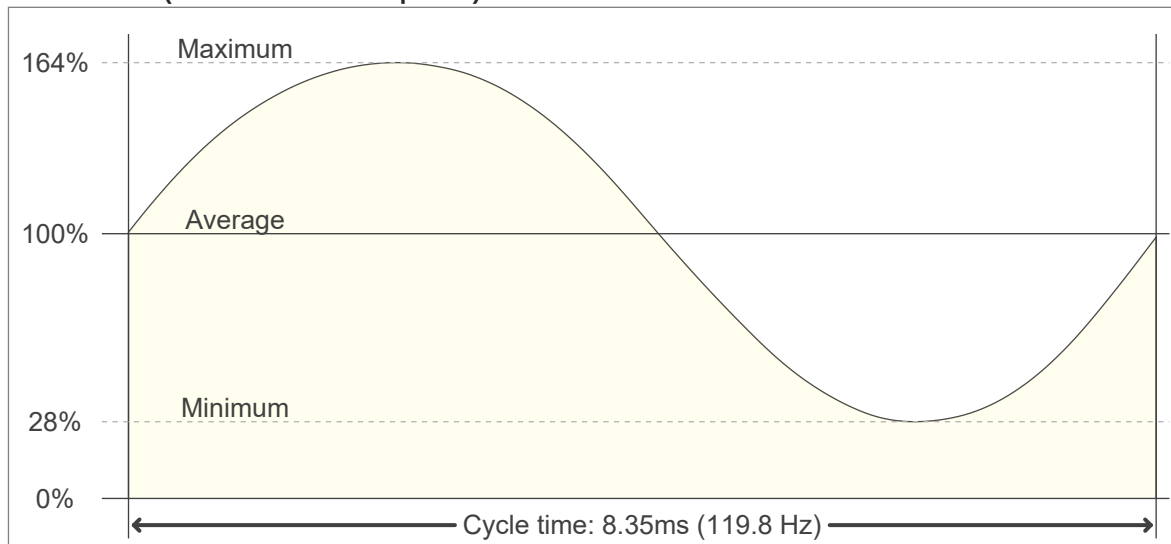


Flicker Specifications

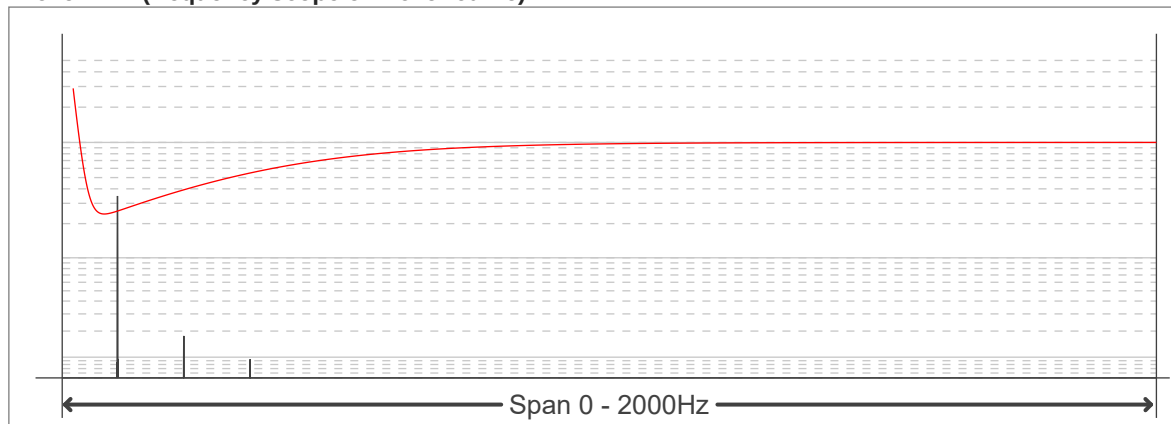
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.76 Hz
Flicker index:	0.22
Flicker percentage:	70.26 %
SVM: (Visual flicker)	2.52

Flicker conditions:

Sample rate:	20000 samples/second
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