

Light efficiency:

143 Lumen/Watt

Output: 28234 lm

Light quality:

CRI: 83.7

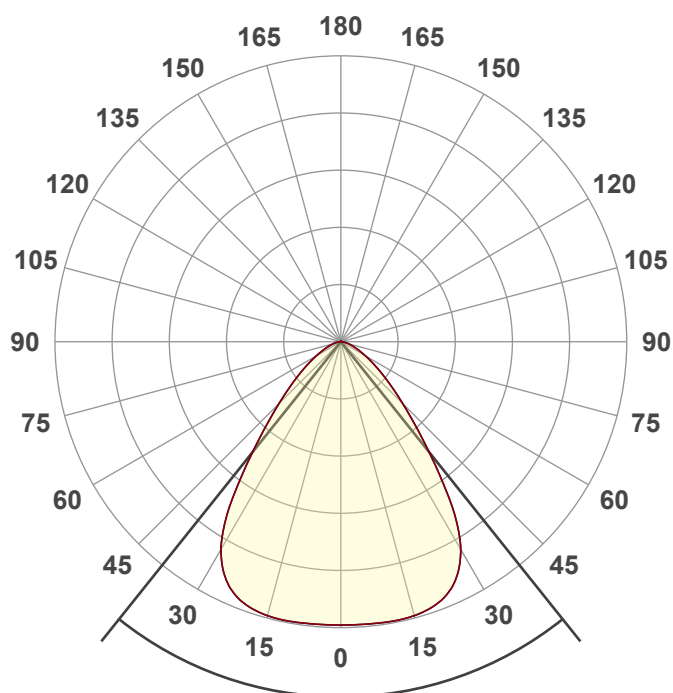
Peak: 16656 cd

Color temperature:

4051 K

Power: 198 W

PF: 1.0



Product name:

UHBD-S1-50K200-80H

Date and time:

7/13/2021 1:20:57 PM

Beam angle

77.3°

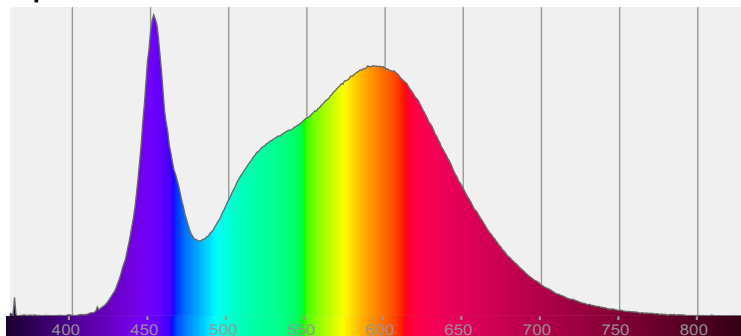


CIE 1931

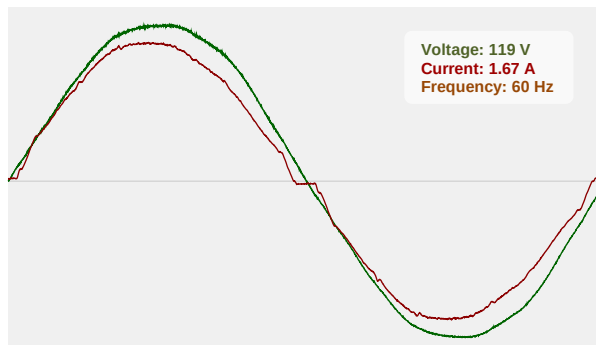
x: 0.378

y: 0.373

Spectra



Power



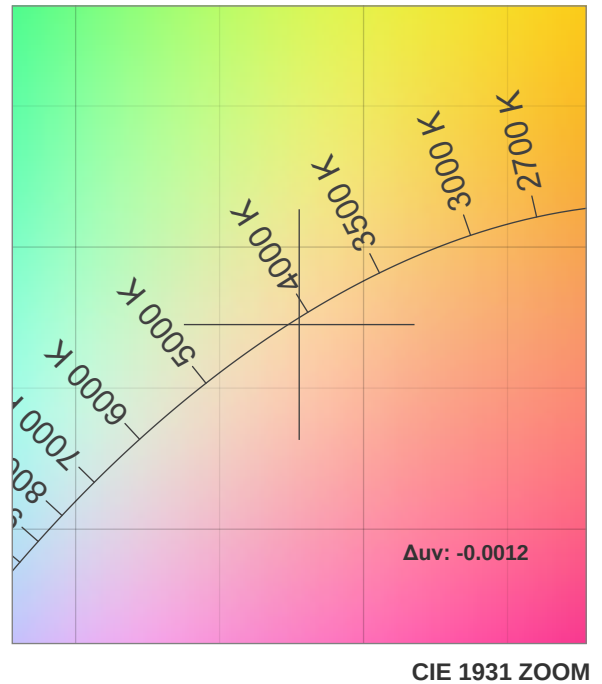
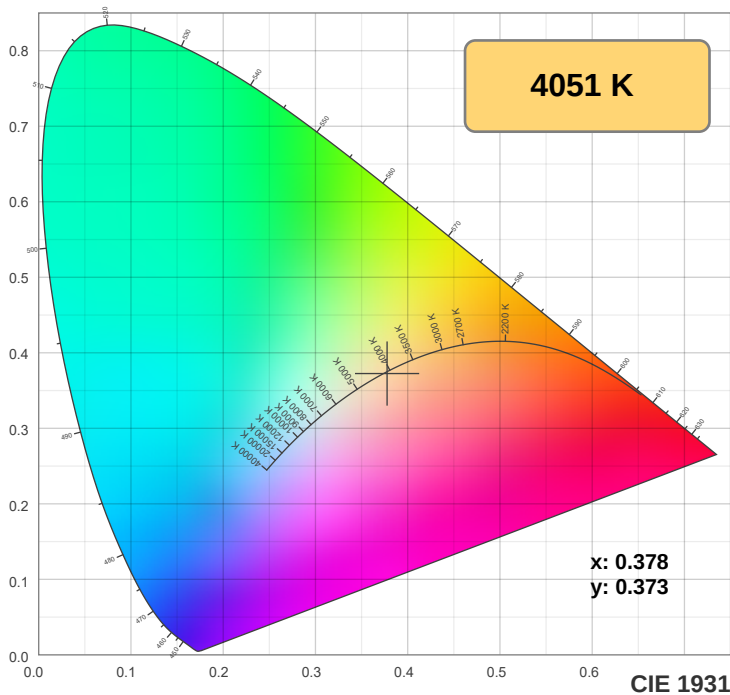
T 314.743.3067

F 314.972.6202

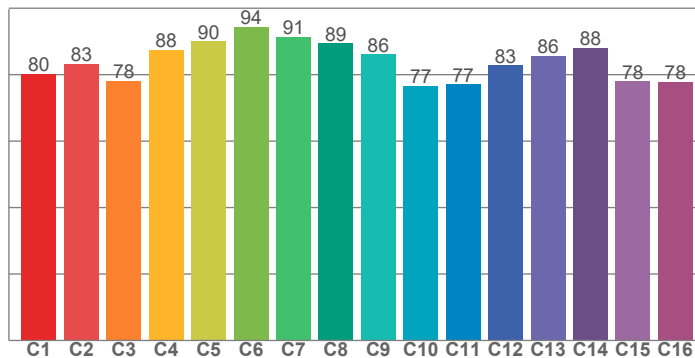
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

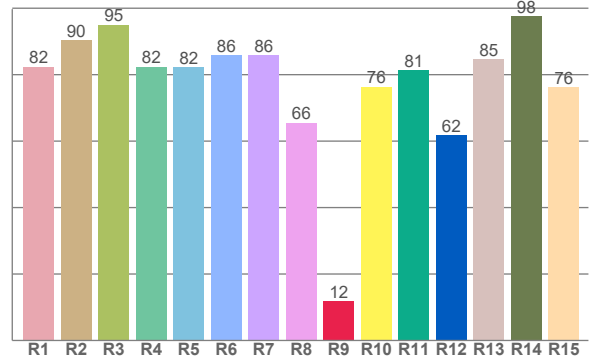
Color Specifications



TM30: 83.9



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
82.4	90.3	95.1	82.4	82.2	85.9	85.9	65.6	11.8	76.4	81.3	61.8	84.6	97.5	76.2

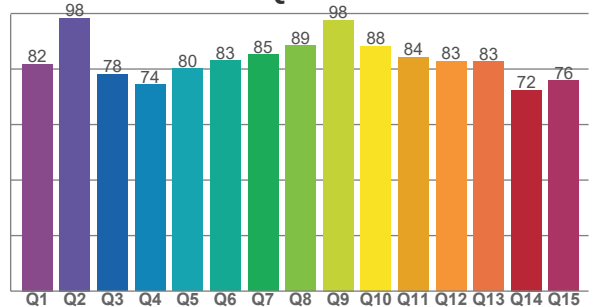
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80.2	83.3	78.1	87.5	90.0	94.3	91.4	89.4	86.1	76.6	77.1	82.8	85.7	88.0	78.0	77.8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81.8	98.4	78.1	74.5	80.2	82.9	85.2	88.5	97.6	88.3	84.4	82.8	82.6	72.4	75.8

CQS: 82.1



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
4051 K	83.7	11.8	83.9	95.5	82.1	0.378	0.373	0.225	0.333	-0.0012



TM30 Report

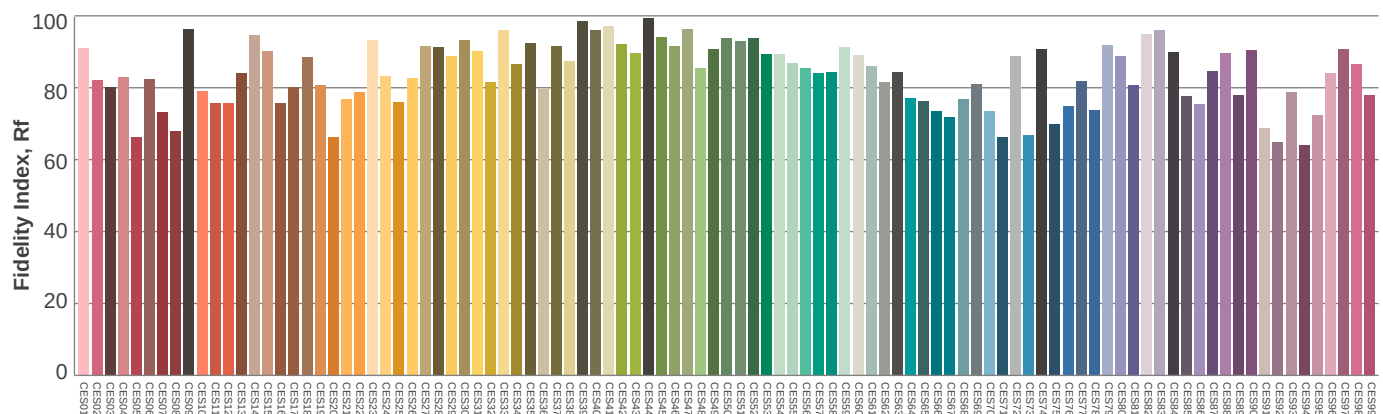
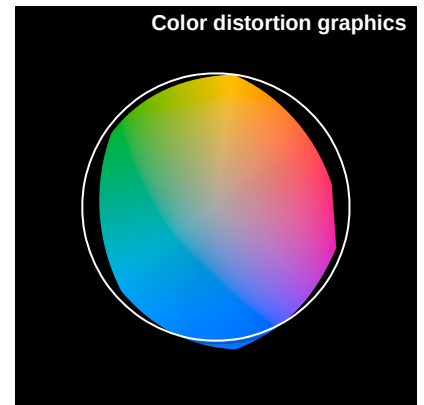
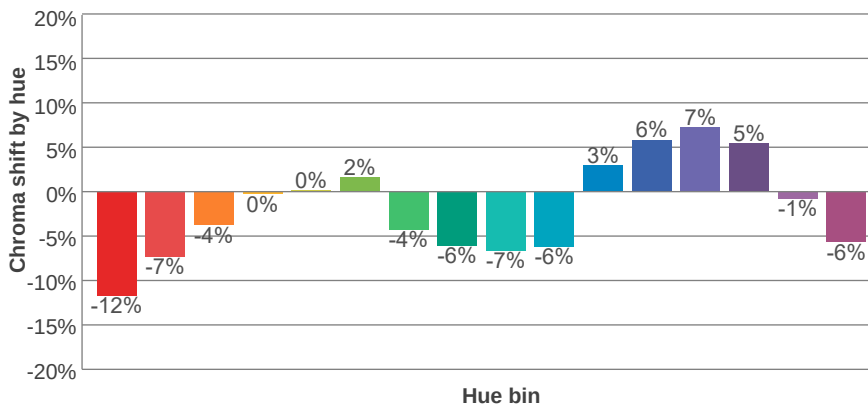
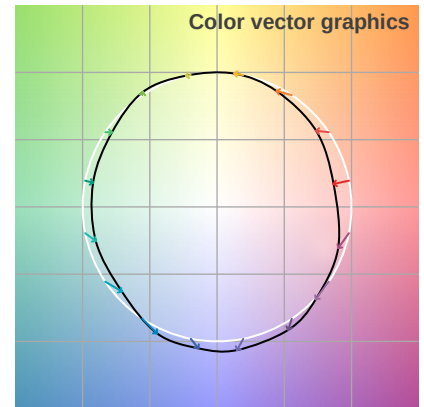
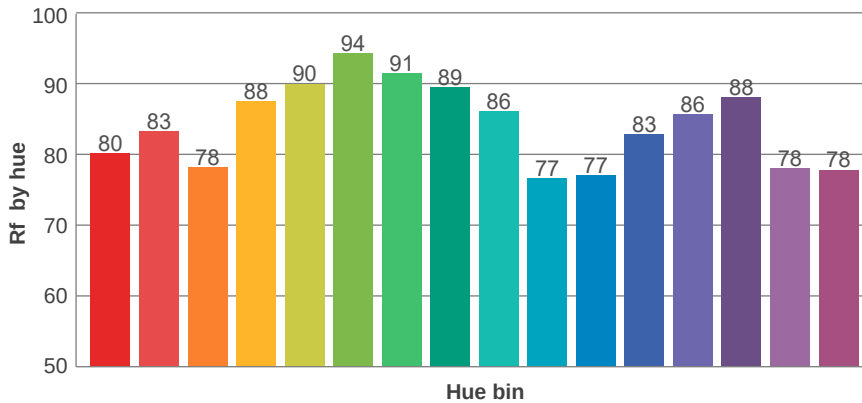
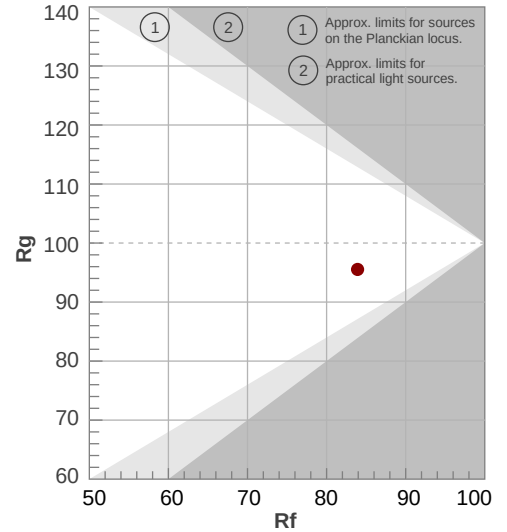
Rf 83.9

Fidelity index Rf

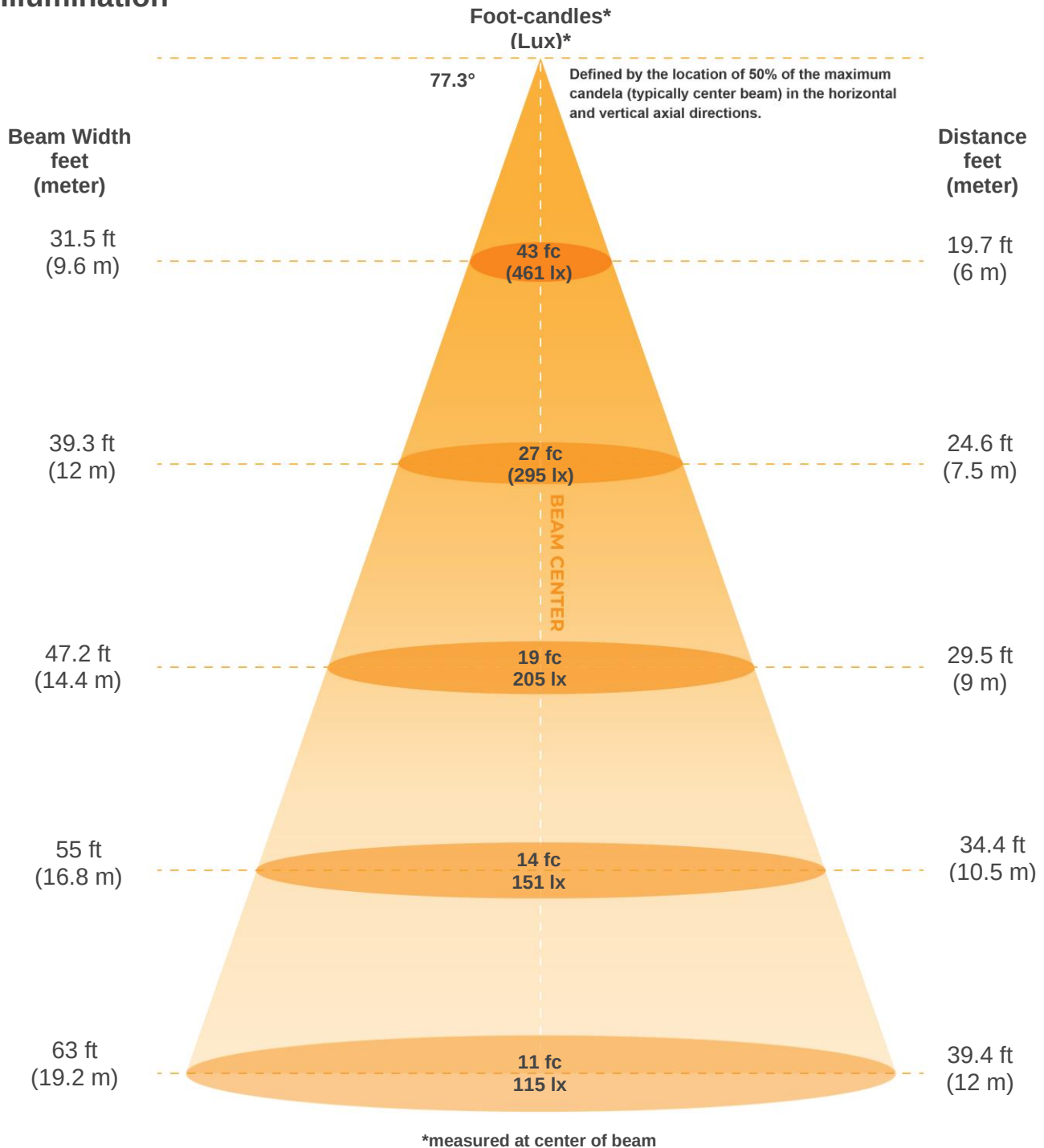
Rg 95.5

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	80	-12%	0%
2	83	-7%	6%
3	78	-4%	11%
4	88	0%	7%
5	90	0%	4%
6	94	2%	-2%
7	91	-4%	-3%
8	89	-6%	0%
9	86	-7%	7%
10	77	-6%	13%
11	77	3%	15%
12	83	6%	7%
13	86	7%	-6%
14	88	5%	-7%
15	78	-1%	-16%
16	78	-6%	-12%



Illumination



Beam intensities from 1-20m

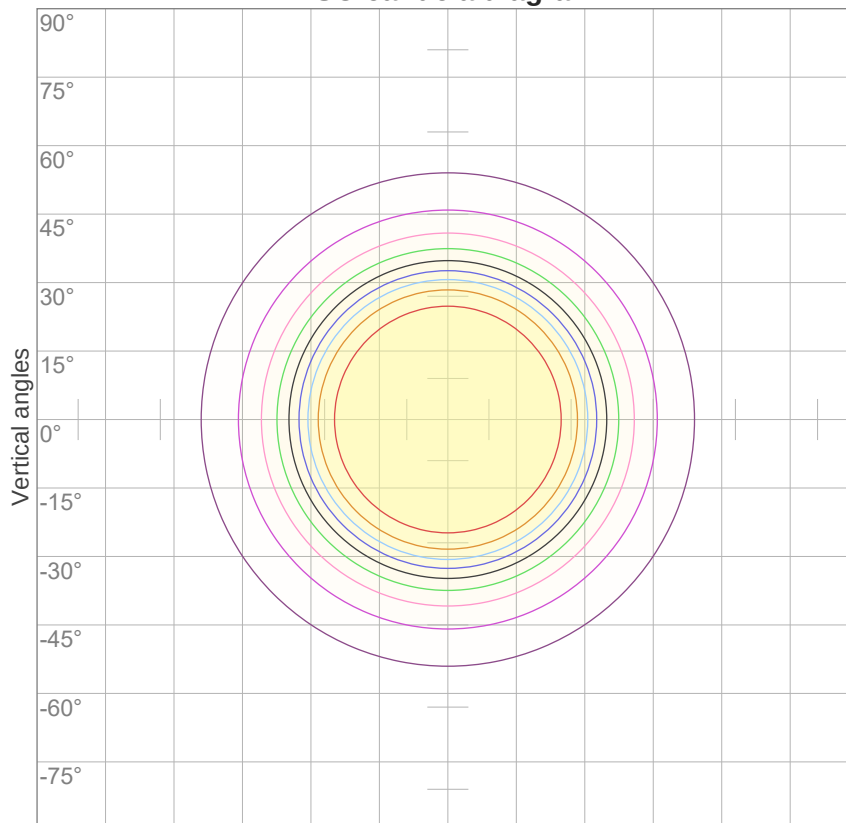
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
16608lx	4152lx	1845lx	1038lx	664lx	461lx	339lx	259lx	205lx	166lx	137lx	115lx	98lx	85lx	74lx	65lx	57lx	51lx	46lx	42lx
1542.9fcd	385.7fcd	171.4fcd	96.4fcd	61.7fcd	42.9fcd	31.5fcd	24.1fcd	19fcd	15.4fcd	12.8fcd	10.7fcd	9.1fcd	7.9fcd	6.9fcd	6fcd	5.3fcd	4.8fcd	4.3fcd	3.9fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
77.3°	120°	151.7°	93.6%	79.5%



ISO Diagrams

ISO candela diagram



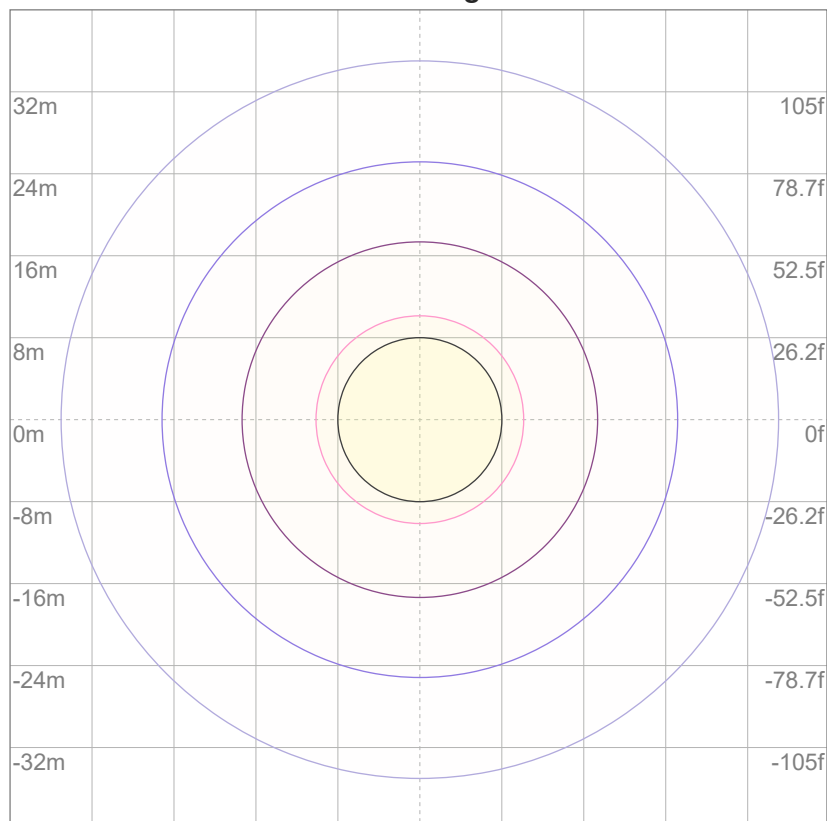
10%	1661 cd
20%	3322 cd
30%	4982 cd
40%	6643 cd
50%	8304 cd
60%	9965 cd
70%	11625 cd
80%	13286 cd
90%	14947 cd

Conditions:

Number of c-planes: 16

Candela at center: 16608 cd

ISO lux diagram



3%	4.98 lx
5%	8.30 lx
10%	16.6 lx
30%	49.8 lx
50%	83.0 lx

Conditions:

Number of c-planes: 16

Lux at center: 166 lx

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



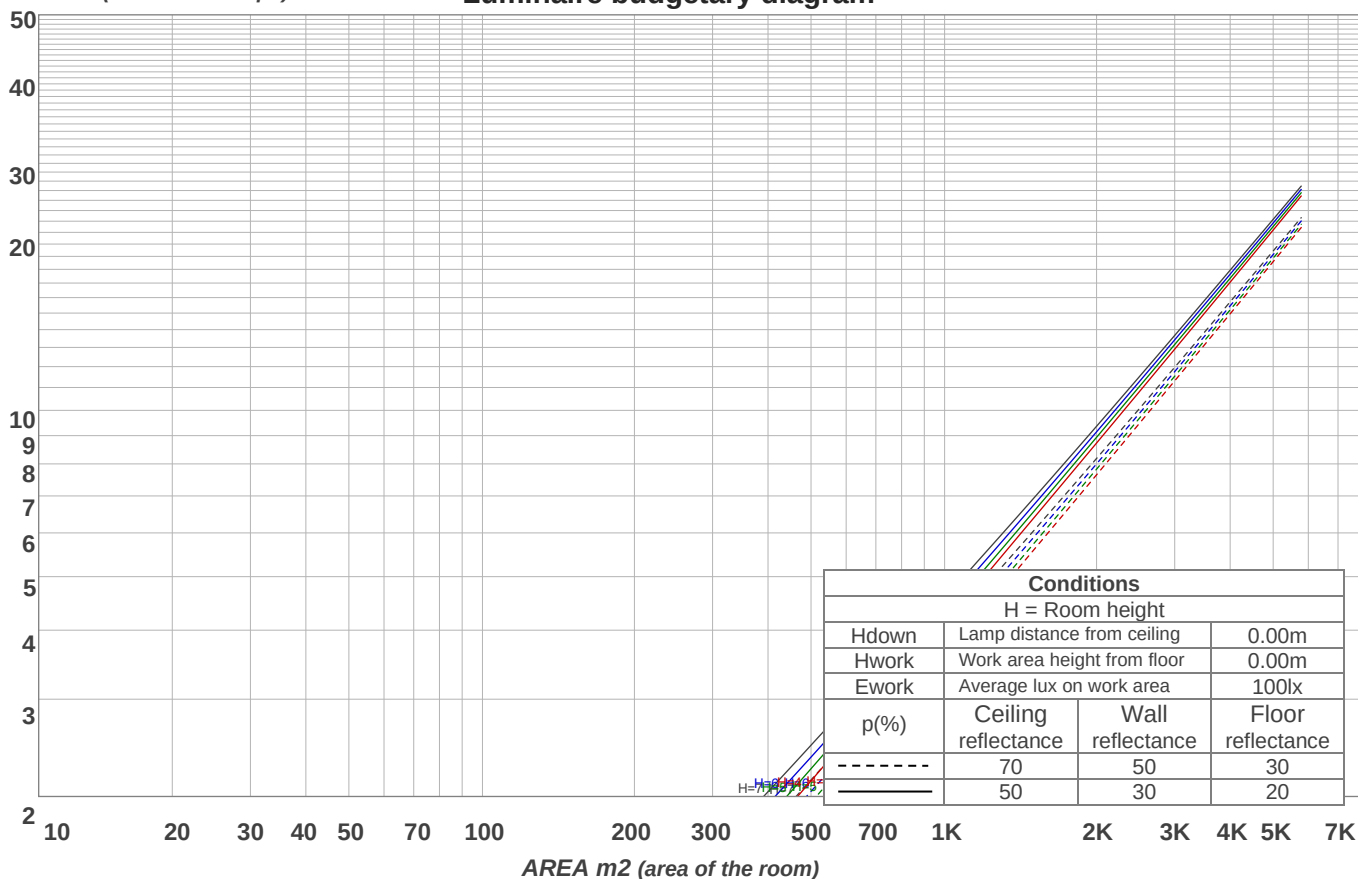
Light Planning

Coefficients of Utilization

Ceiling reflectance	80				70				50			30			10			0
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	99	97	98	96	94	94	93	92	90
2	104	98	93	89	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71
4	91	81	74	69	89	80	74	68	78	72	68	75	71	67	73	69	66	64
5	85	74	67	62	83	73	67	61	71	65	61	70	64	60	68	63	60	58
6	79	68	61	56	78	67	61	55	66	60	55	64	59	55	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39	37

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°
1588 lm	4697 lm	7135 lm	6724 lm	4053 lm	2227 lm	1130 lm	484 lm	114 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
5.37 lm	6.13 lm	8.67 lm	10.4 lm	13.1 lm	13.5 lm	12.4 lm	8.76 lm	3.24 lm

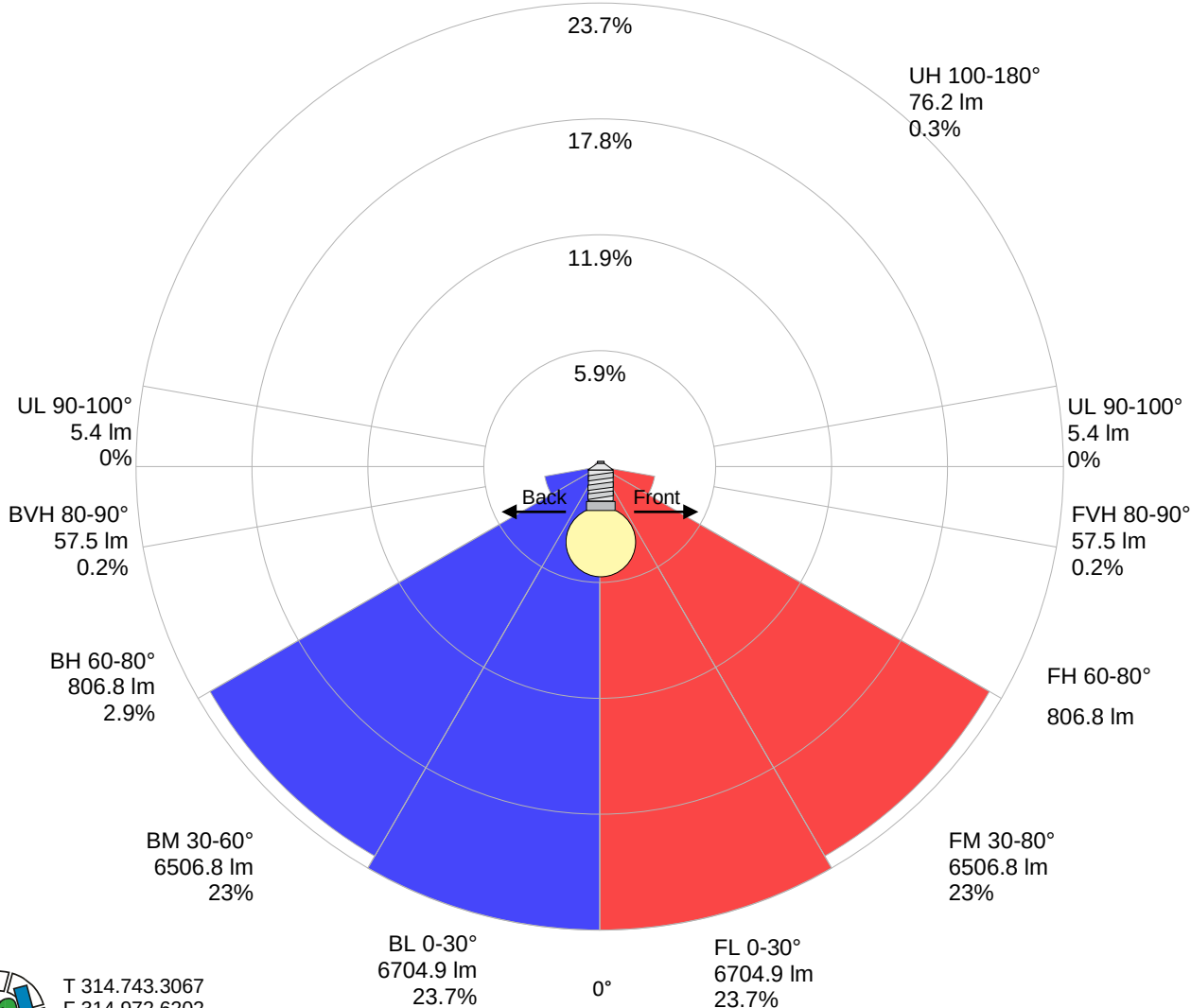


Road Report

LCS table

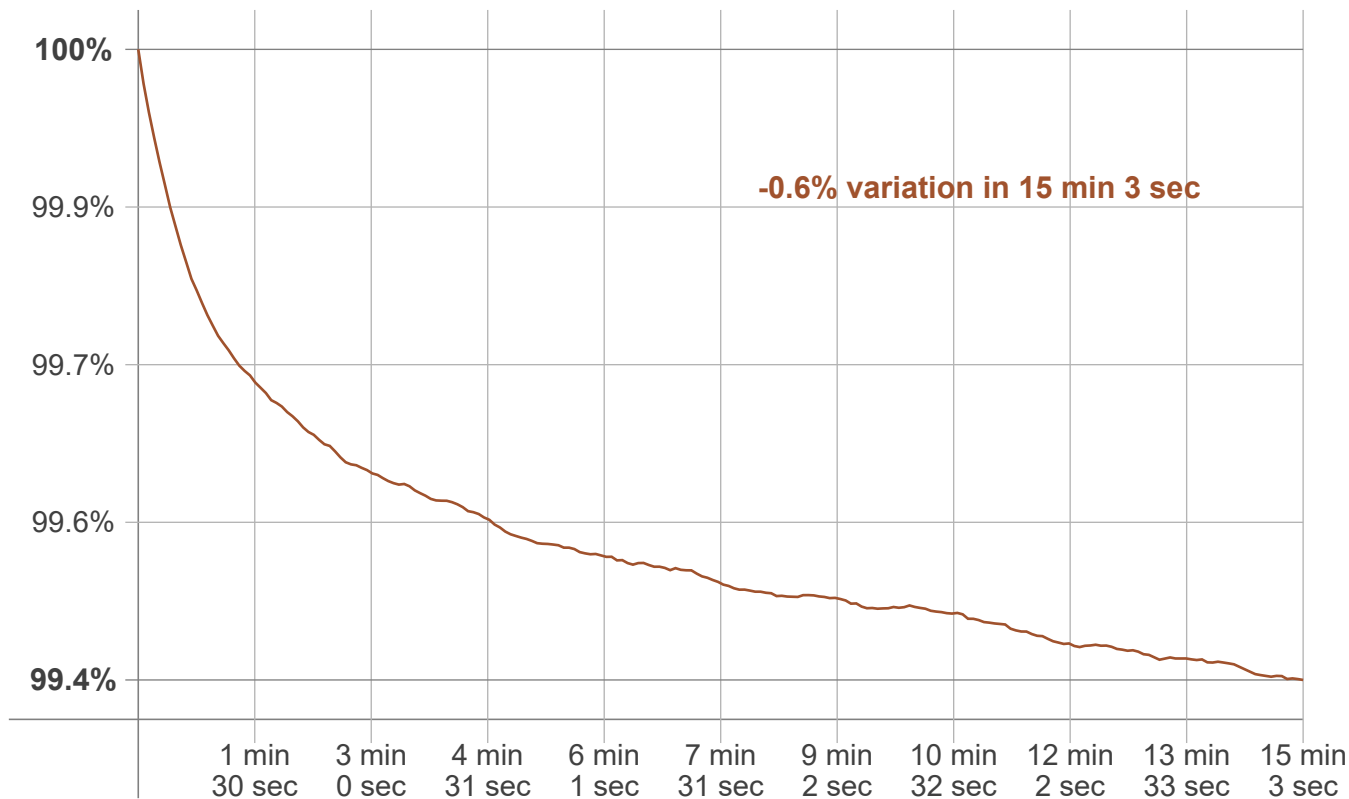
BUG rating:	B5 U3 G1	
Forward light	Lumens	Lumens %
Low(0-30):	6704.9	23.7%
Medium(30-60):	6506.8	23%
High(60-80):	806.8	2.9%
Very high(80-90):	57.5	0.2%
Back light		
Low(0-30):	6704.9	23.7%
Medium(30-60):	6506.8	23%
High(60-80):	806.8	2.9%
Very high(80-90):	57.5	0.2%
Uplight		
Low(90-100):	5.4	0%
High(100-180):	76.2	0.3%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 15 min 3 sec
Warmup variation	-0.6%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
4045 K	+6 K	4051 K

Output change

Output start	Output change	Output end
28374 lm	-140 lm	28234 lm

