

Light efficiency:

141 Lumen/Watt

Output: 29171 lm

Light quality:

CRI: 84.2

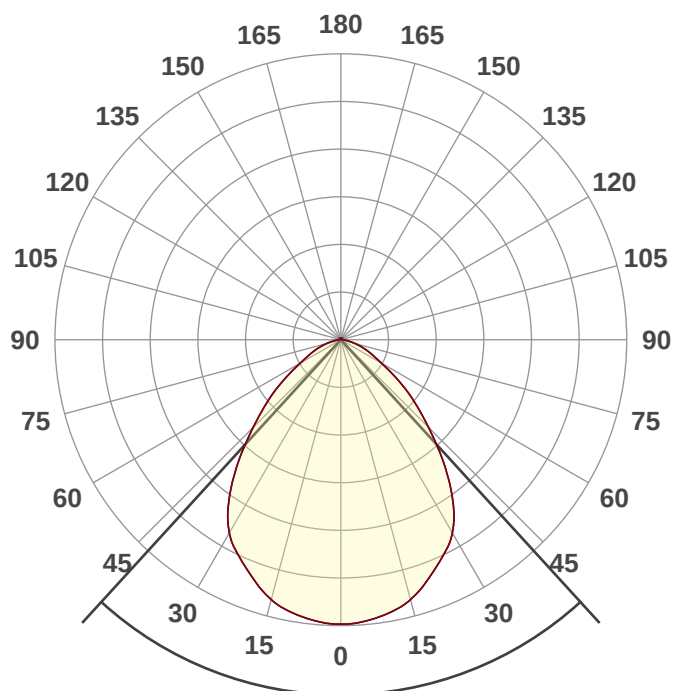
Peak: 15009 cd

Color temperature:

5372 K

Power: 207.4 W

PF: 0.99



Product name:

UDSR-50K200-ACBKM
(with UDSR-PR90-2024 reflector)

Date and time:

1/9/2020 2:10:57 PM

Beam angle

84.8°

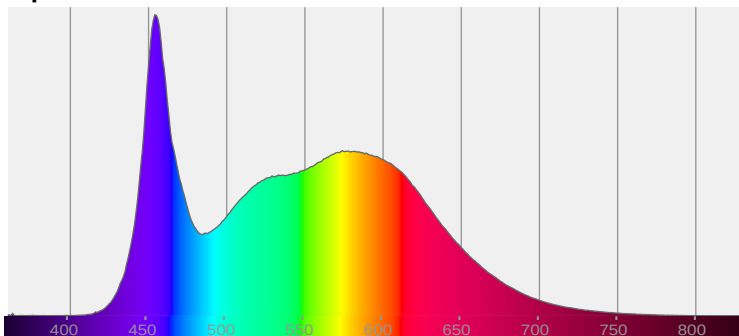


CIE 1931

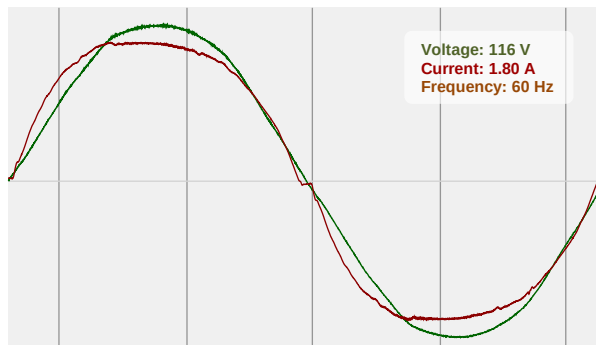
x: 0.336

y: 0.345

Spectra



Power



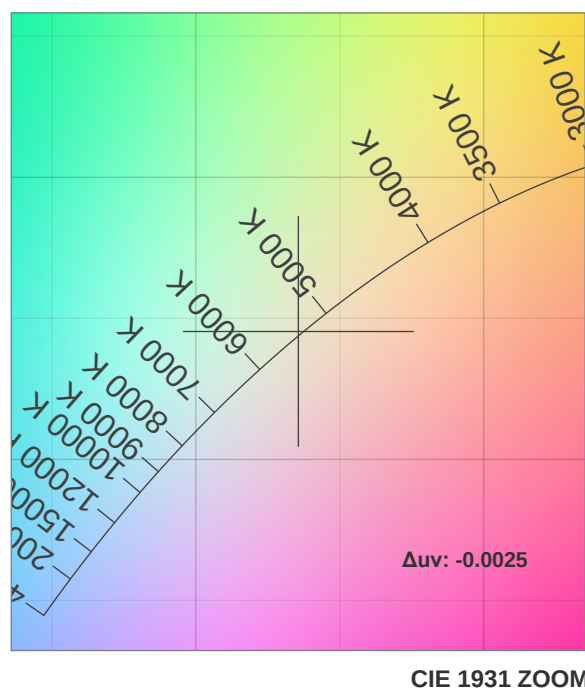
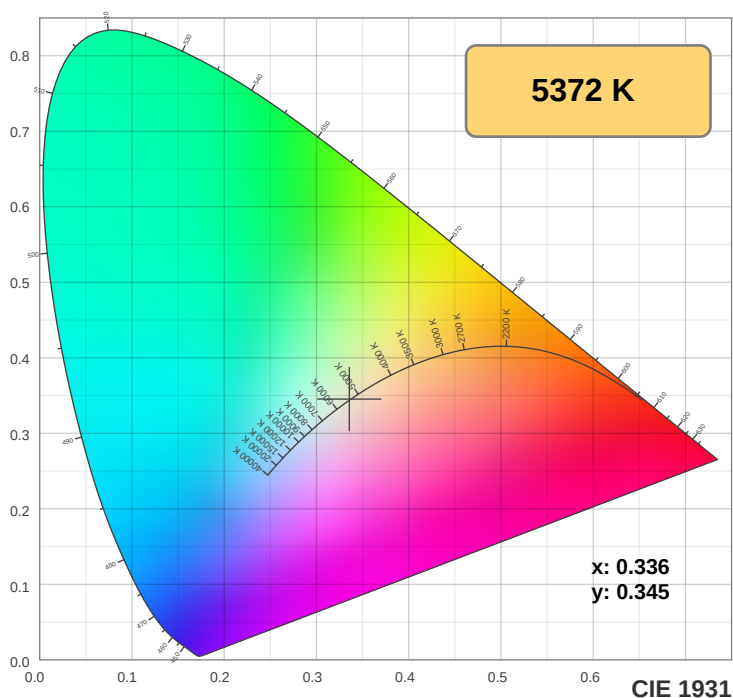
T 314.743.3067

F 314.972.6202

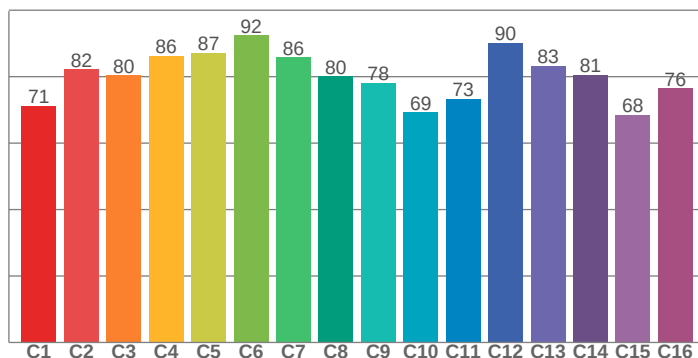
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

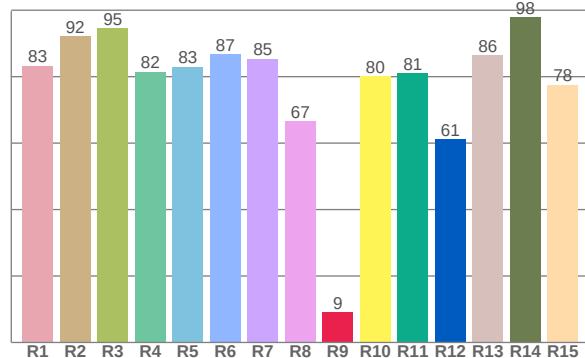
Color Specifications



TM30: 80.4



CRI: 84.2 (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
83.3	92.2	94.6	81.5	83.0	86.7	85.4	66.6	9.2	80.1	81.0	61.1	86.4	97.8	77.6

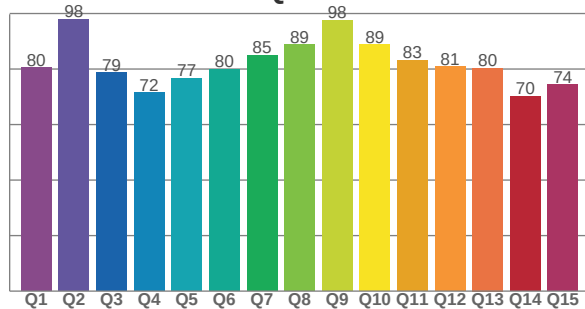
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
71.3	82.2	80.4	86.3	87.1	92.5	85.8	80.1	78.1	69.2	73.4	90.3	83.2	80.6	68.5	76.4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
80.5	97.9	78.7	71.5	76.7	79.9	85.0	88.8	97.6	88.8	83.2	80.8	80.4	70.2	74.4

CQS: 80.6



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
5372 K	84.2	9.2	80.4	92.3	80.6	0.336	0.345	0.207	0.320	-0.0025



TM30 Report

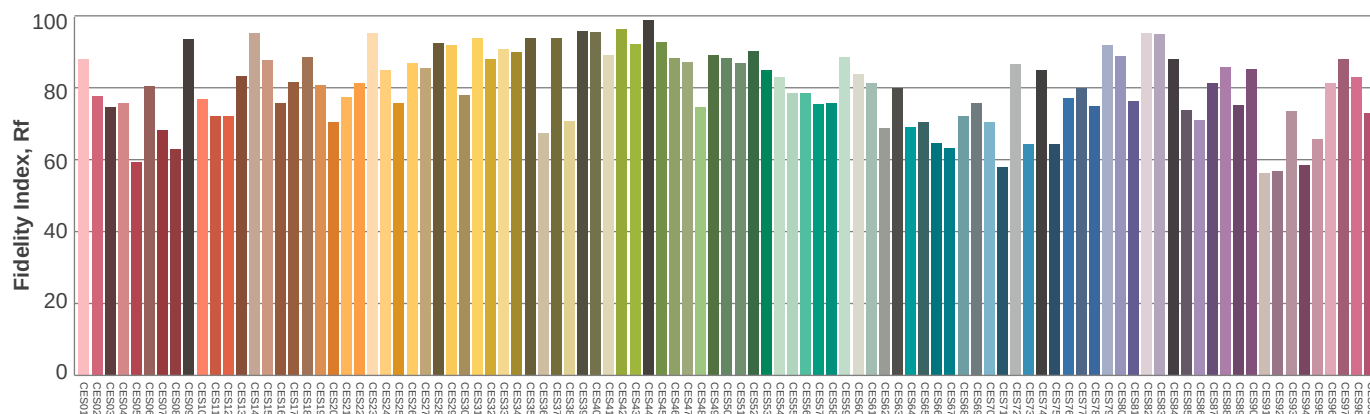
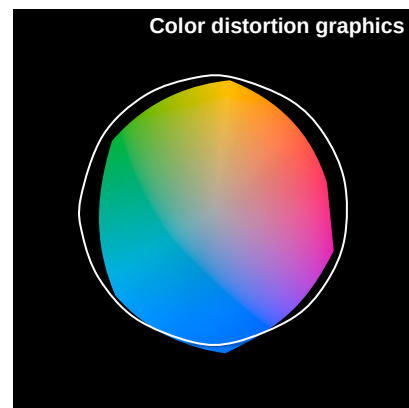
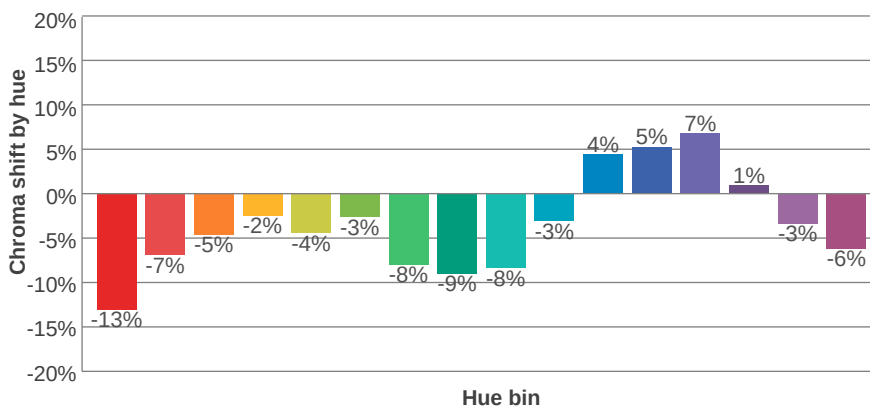
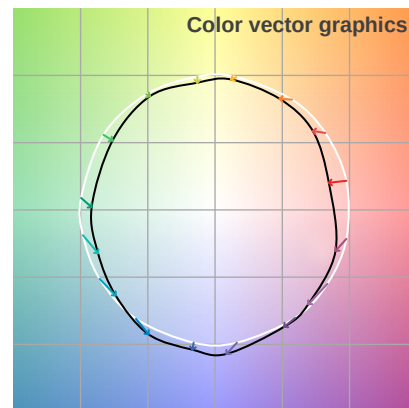
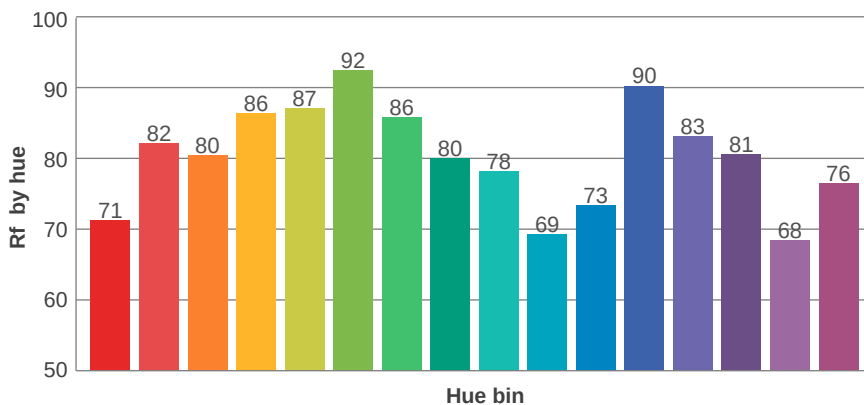
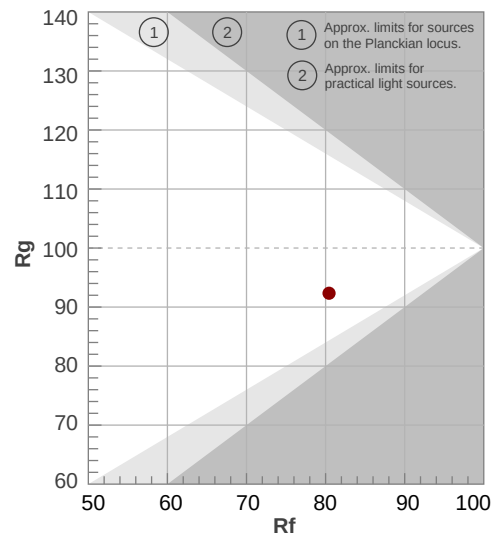
Rf 80.4

Fidelity index Rf

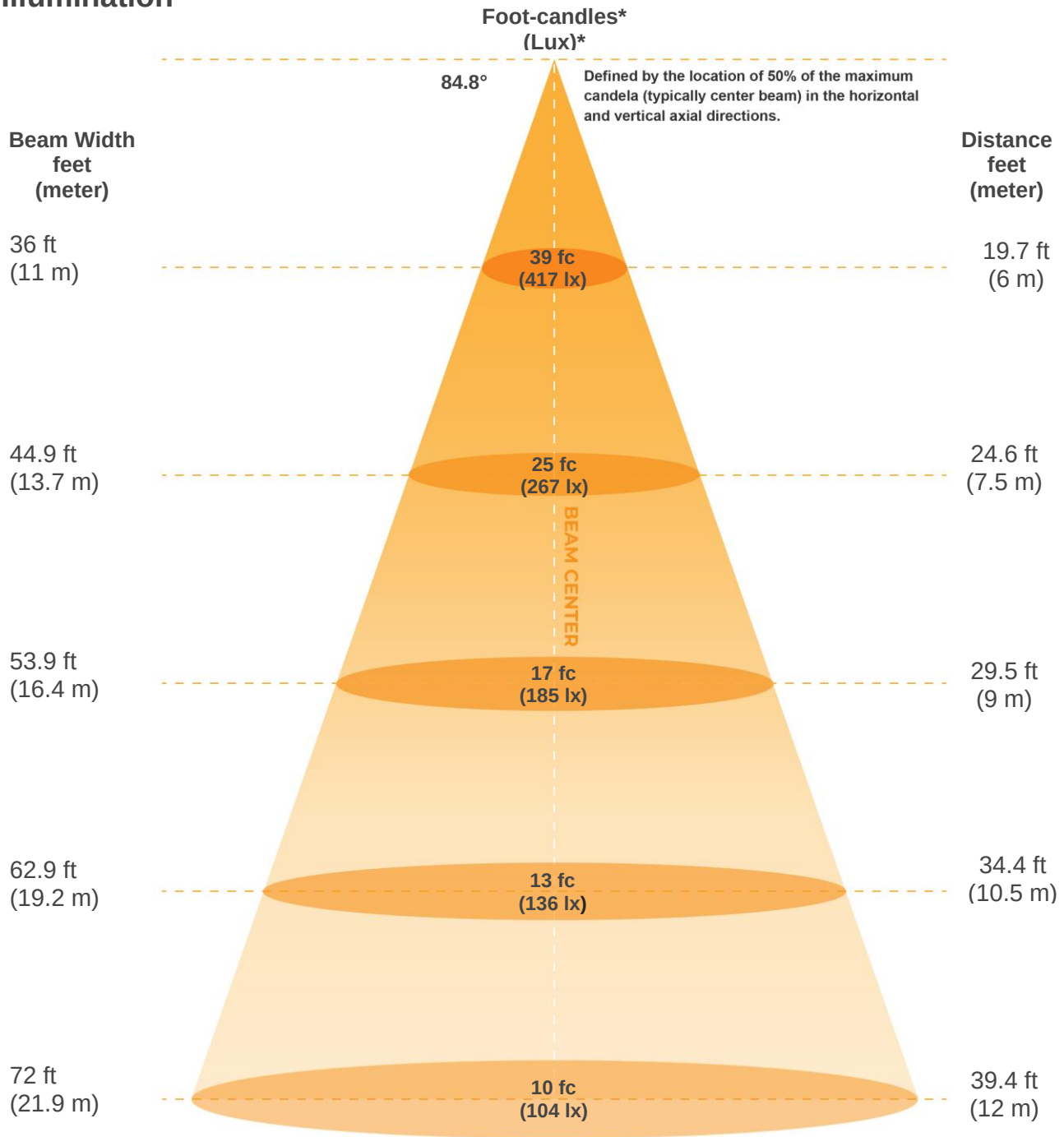
Rg 92.3

Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	71	-13%	1%
2	82	-7%	6%
3	80	-5%	8%
4	86	-2%	3%
5	87	-4%	1%
6	92	-3%	-2%
7	86	-8%	0%
8	80	-9%	5%
9	78	-8%	15%
10	69	-3%	17%
11	73	4%	14%
12	90	5%	0%
13	83	7%	-9%
14	81	1%	-10%
15	68	-3%	-21%
16	76	-6%	-10%



Illumination



*measured at center of beam

Beam intensities from 1-20m

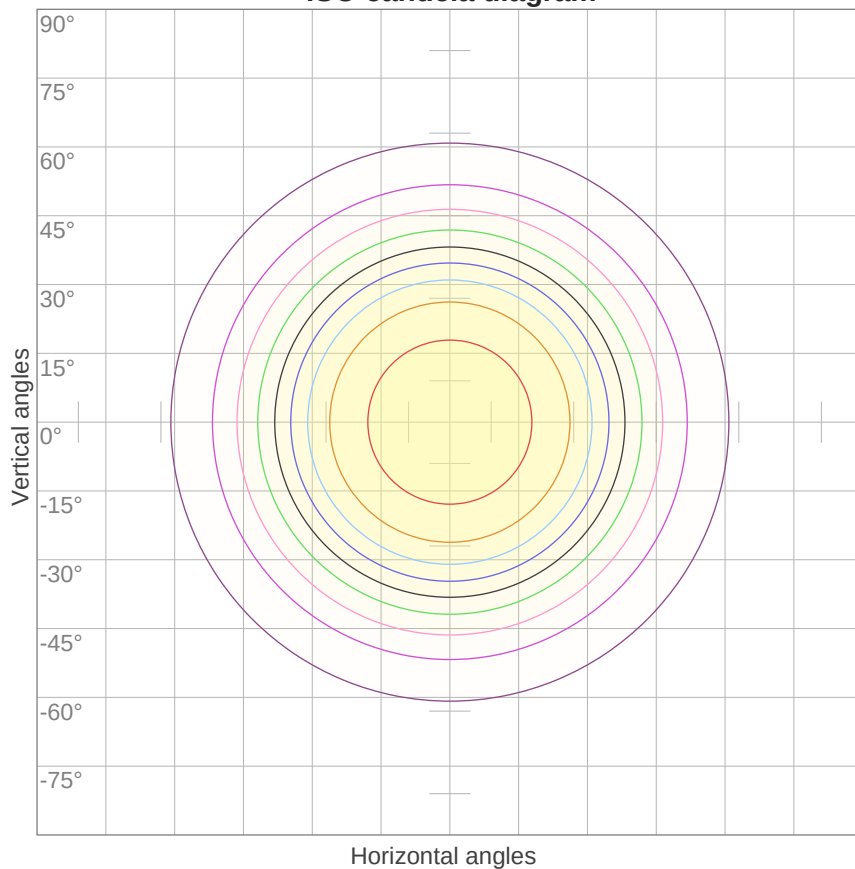
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
15009lx	3752lx	1668lx	938lx	600lx	417lx	306lx	235lx	185lx	150lx	124lx	104lx	89lx	77lx	67lx	59lx	52lx	46lx	42lx	38lx
1394.4fcd	348.6fcd	154.9fcd	87.1fcd	55.8fcd	38.7fcd	28.5fcd	21.8fcd	17.2fcd	13.9fcd	11.5fcd	9.7fcd	8.3fcd	7.1fcd	6.2fcd	5.4fcd	4.8fcd	4.3fcd	3.9fcd	3.5fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
84.8°	135.2°	161.6°	89.1%	69.9%



ISO Diagrams

ISO candela diagram



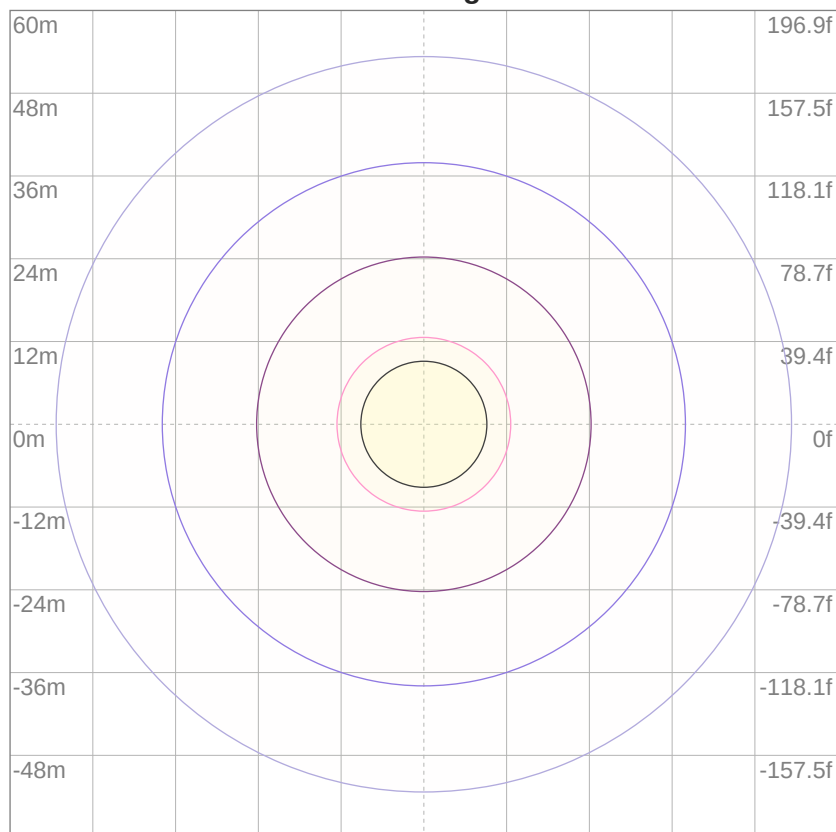
10%	1501 cd
20%	3002 cd
30%	4503 cd
40%	6003 cd
50%	7504 cd
60%	9005 cd
70%	10506 cd
80%	12007 cd
90%	13508 cd

Conditions:

Number of c-planes: 16

Candela at center: 15009 cd

ISO lux diagram



3%	4.50 lx
5%	7.50 lx
10%	15.0 lx
30%	45.0 lx
50%	75.0 lx

Conditions:

Number of c-planes: 16

Lux at center: 150 lx

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

Mounting height: 10 meters (33 feet)



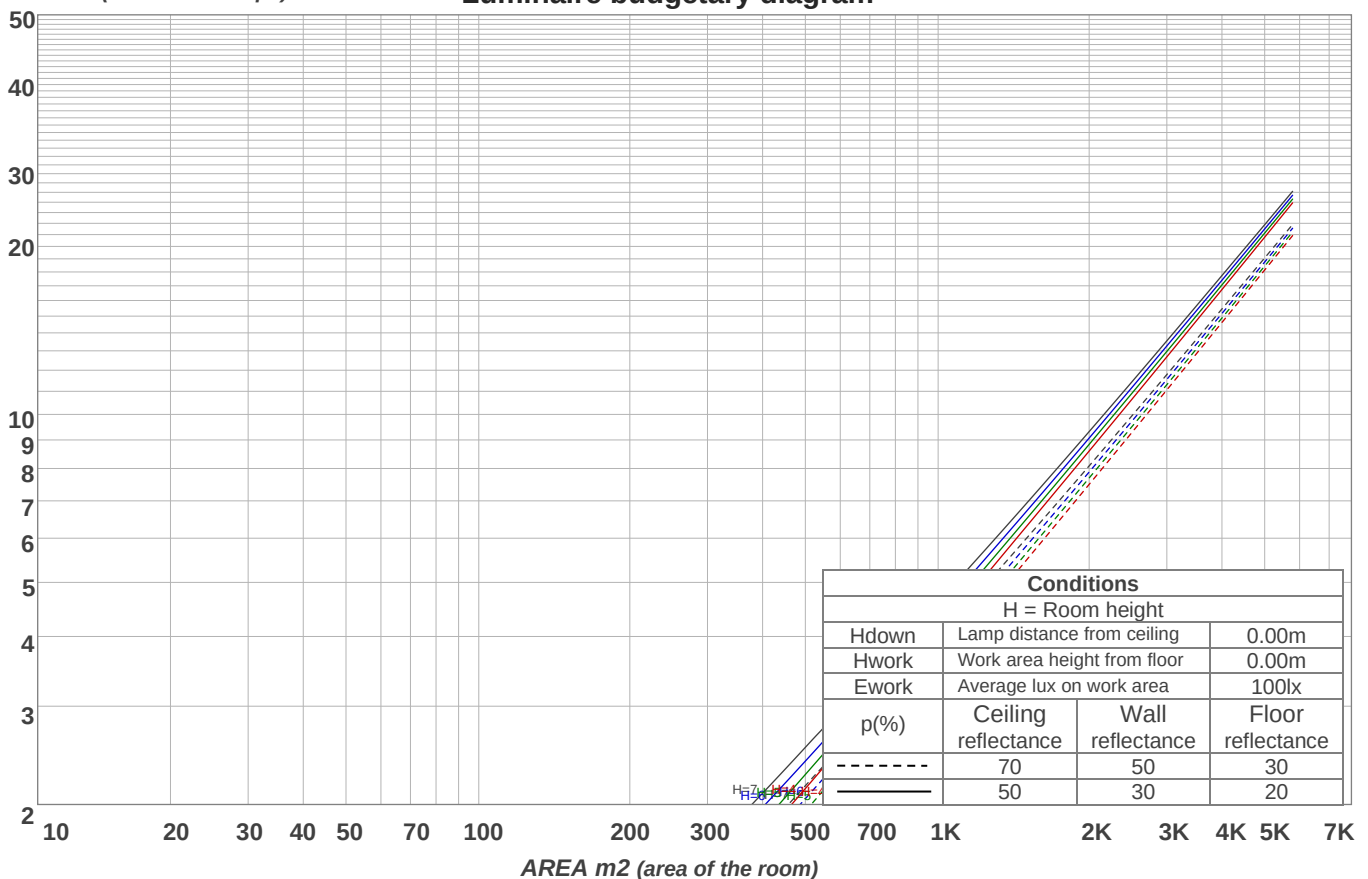
Light Planning

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	110	110	110	106	106	106	101	101	101	99
1	111	107	103	100	108	104	101	98	100	97	95	96	94	92	92	91	89	87
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76
3	95	86	79	73	92	84	78	73	81	76	71	78	74	70	76	72	69	67
4	88	77	70	64	86	76	69	64	74	67	63	71	66	62	69	64	61	59
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	49	44	40	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	37	34	32

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°
1414 lm	3995 lm	5837 lm	6361 lm	5121 lm	3259 lm	1789 lm	843 lm	215 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
63.3 lm	56.7 lm	52.0 lm	45.0 lm	39.2 lm	31.5 lm	24.9 lm	16.9 lm	6.44 lm

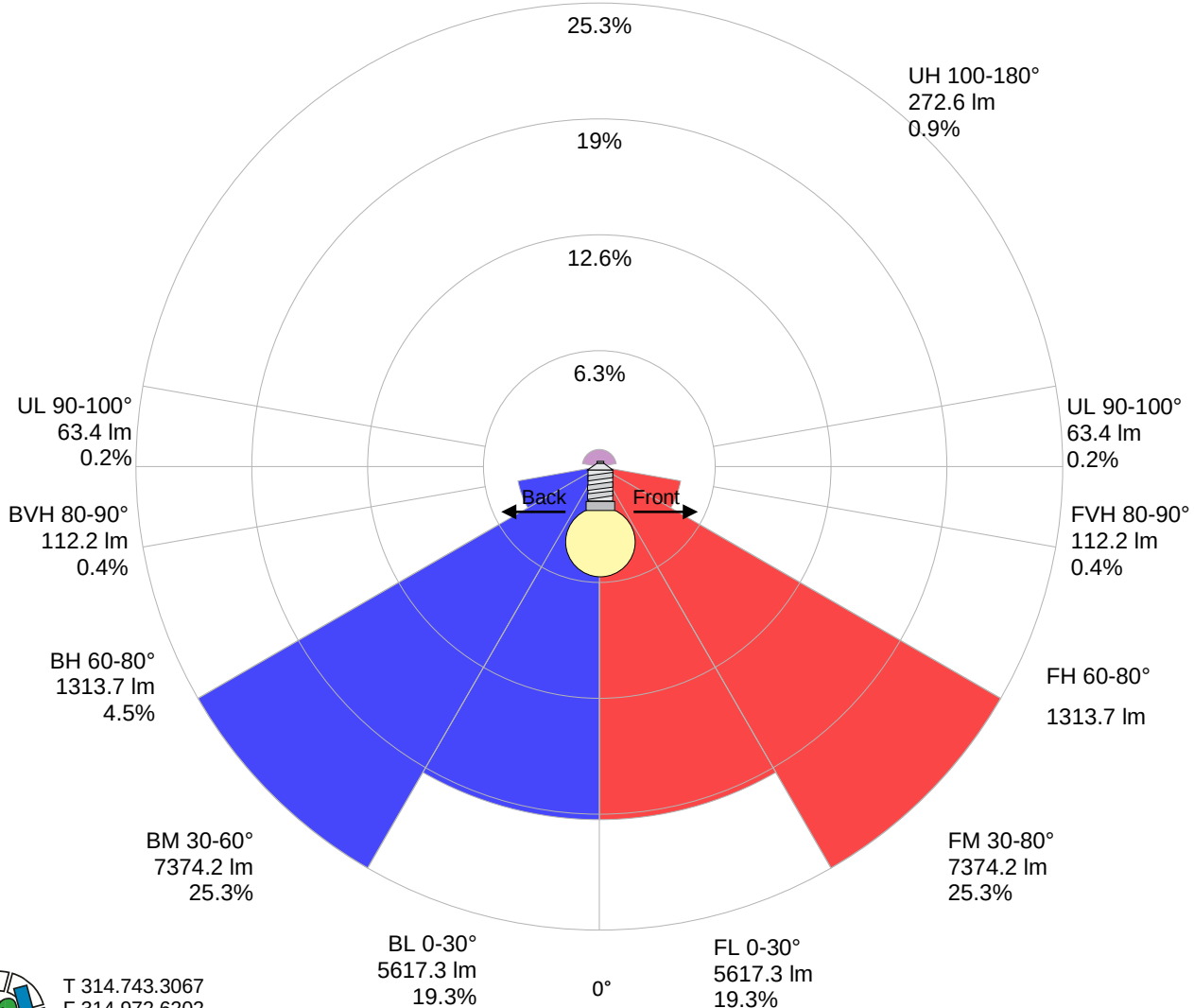


Road Report

LCS table

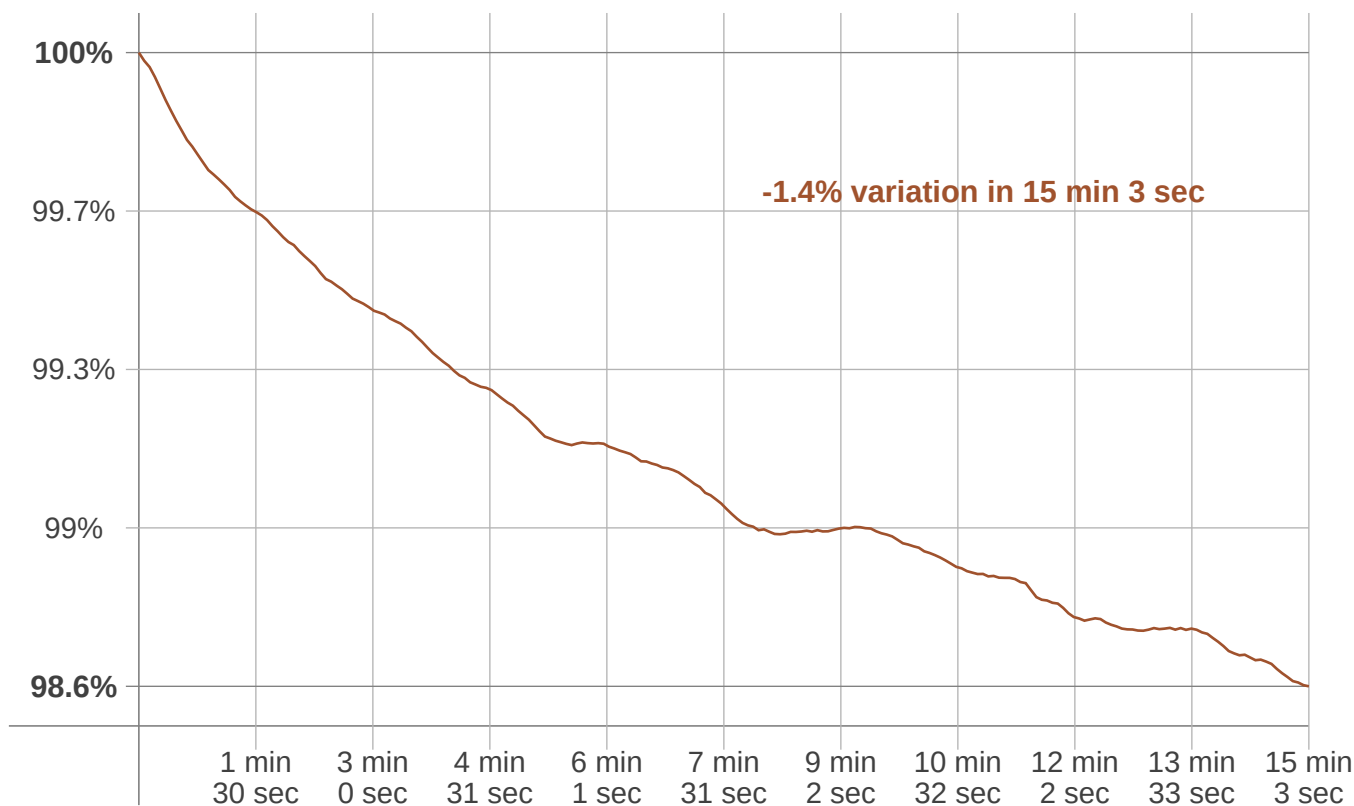
BUG rating:	B5 U3 G2	
Forward light	Lumens	Lumens %
Low(0-30):	5617.3	19.3%
Medium(30-60):	7374.2	25.3%
High(60-80):	1313.7	4.5%
Very high(80-90):	112.2	0.4%
Back light		
Low(0-30):	5617.3	19.3%
Medium(30-60):	7374.2	25.3%
High(60-80):	1313.7	4.5%
Very high(80-90):	112.2	0.4%
Uplight		
Low(90-100):	63.4	0.2%
High(100-180):	272.6	0.9%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	15 min 3 sec
Warmup variation	-1.4%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5342 K	+30 K	5372 K

Output change

Output start	Output change	Output end
29530 lm	-359 lm	29171 lm

