

Light efficiency:

149 Lumen/Watt

Output: 11461 lm

Light quality:

CRI: 84.1

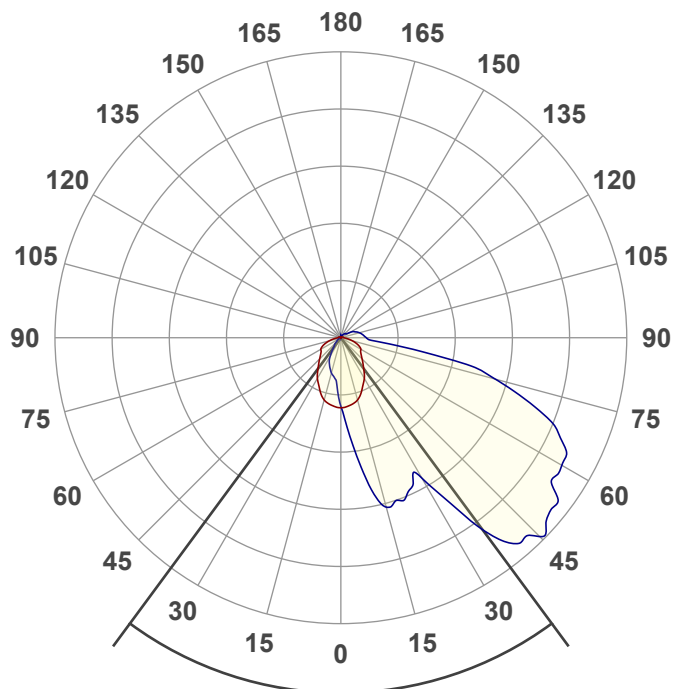
Peak: 6779 cd

Color temperature:

5035 K

Power: 76.7 W

PF: 1.0



Product name:

WPGL-50K80-H

Date and time:

5/19/2021 10:04:27 AM

Beam angle

72.9°

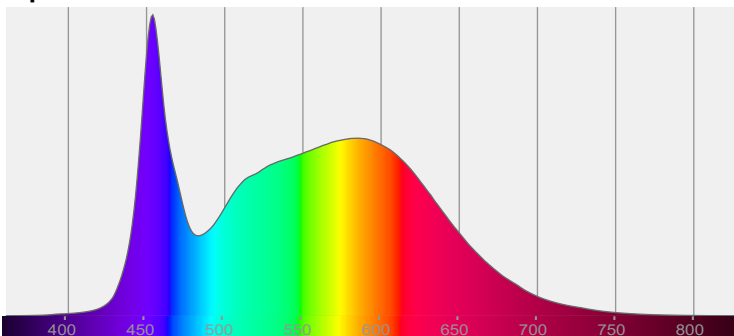


CIE 1931

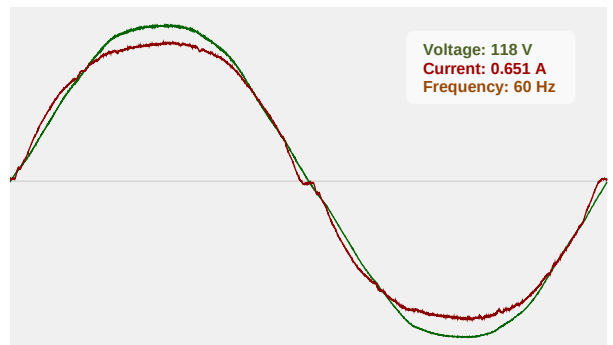
x: 0.345

y: 0.356

Spectra



Power



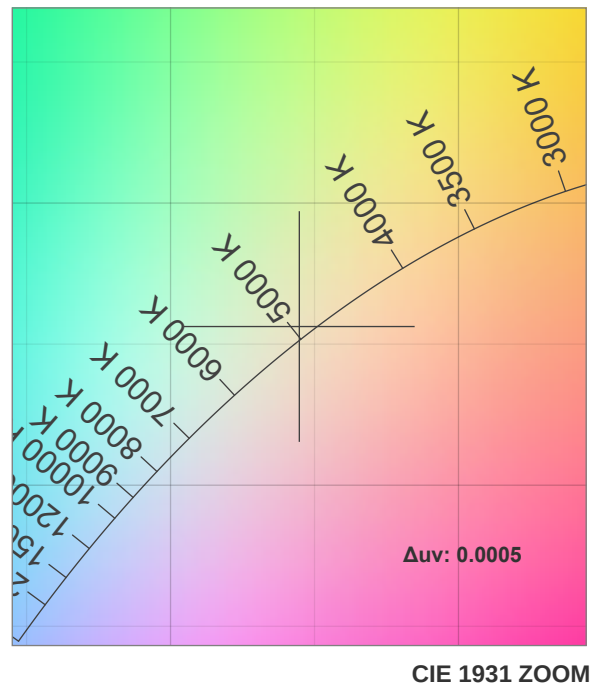
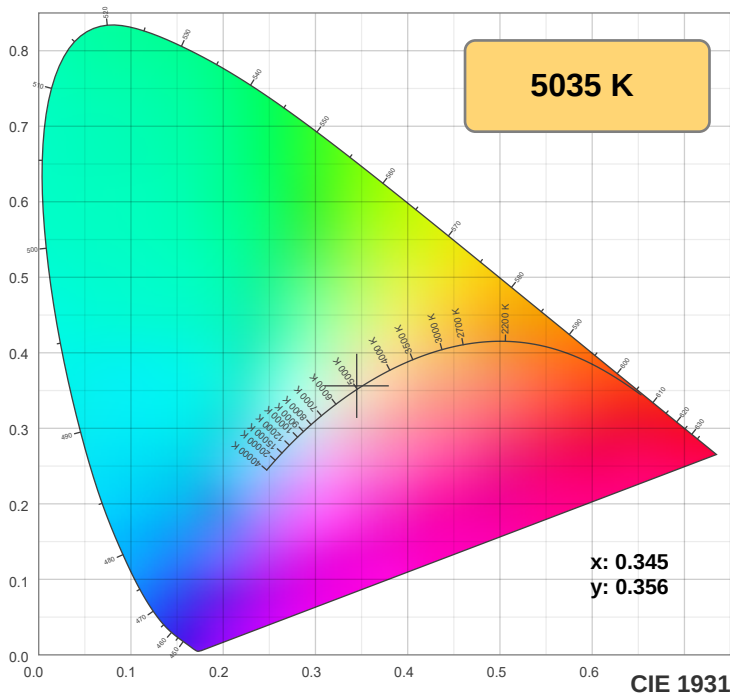
T 314.743.3067

F 314.972.6202

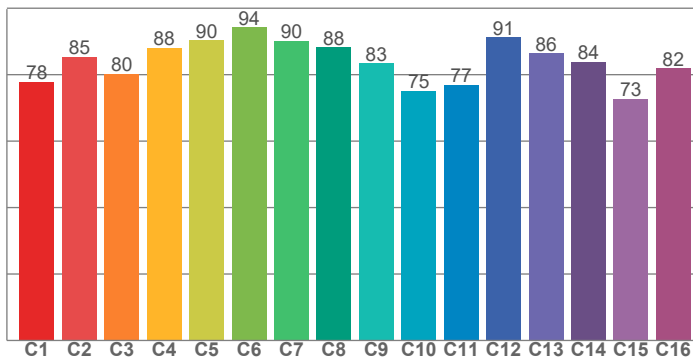
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

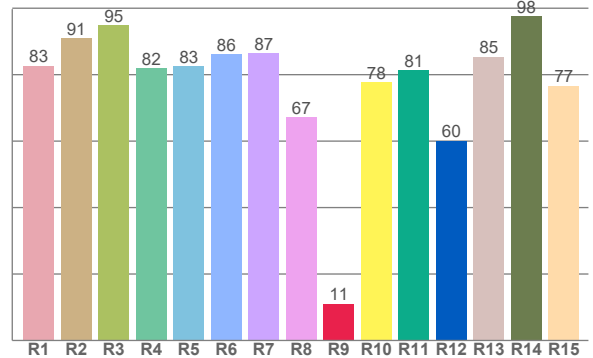
Color Specifications



TM30: 83.9



CRI: 84.1 (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
82.7	91.0	94.8	82.0	82.5	86.1	86.5	67.2	11.0	77.8	81.3	60.1	85.4	97.7	76.7

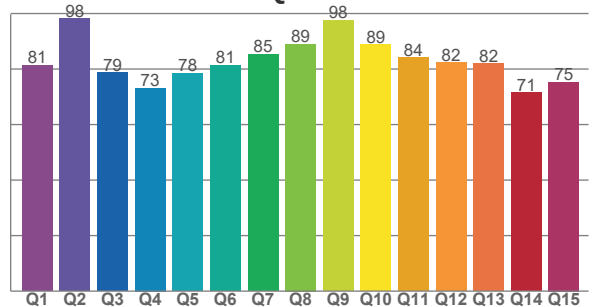
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.8	85.3	80.3	88.1	90.3	94.2	90.2	88.2	83.4	75.1	77.0	91.2	86.4	83.9	72.6	81.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81.4	98.2	78.7	73.2	78.4	81.4	85.3	89.0	97.6	88.8	84.1	82.4	81.9	71.4	75.4

CQS: 81.5



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
5035 K	84.1	11.0	83.9	94.4	81.5	0.345	0.356	0.209	0.325	0.0005



TM30 Report

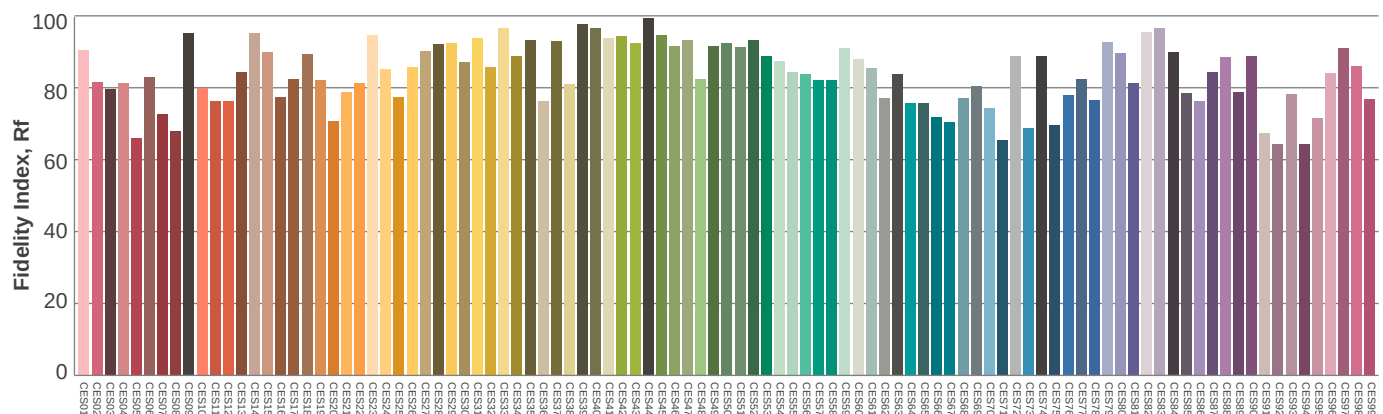
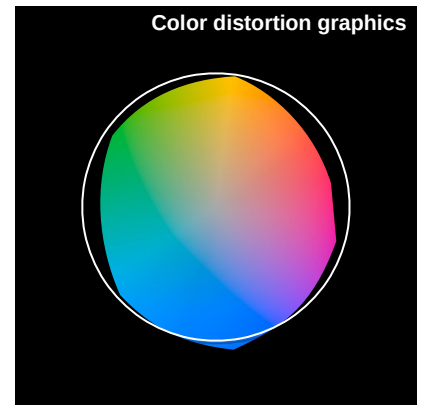
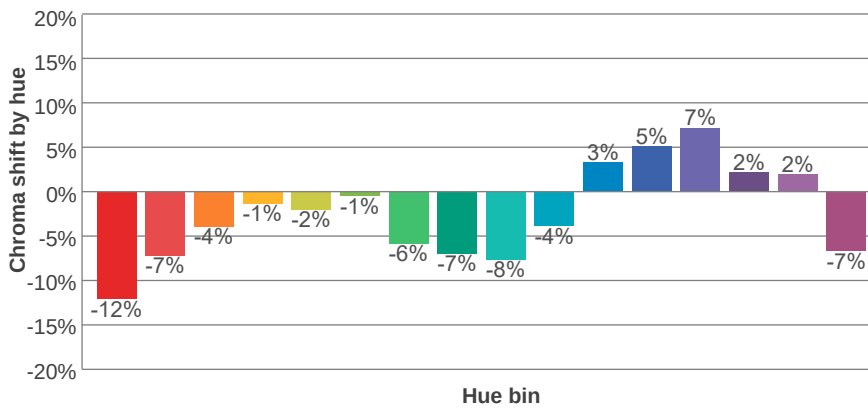
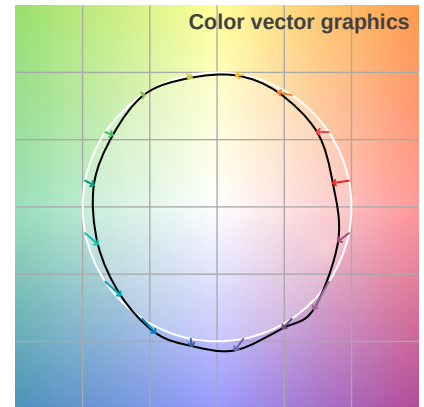
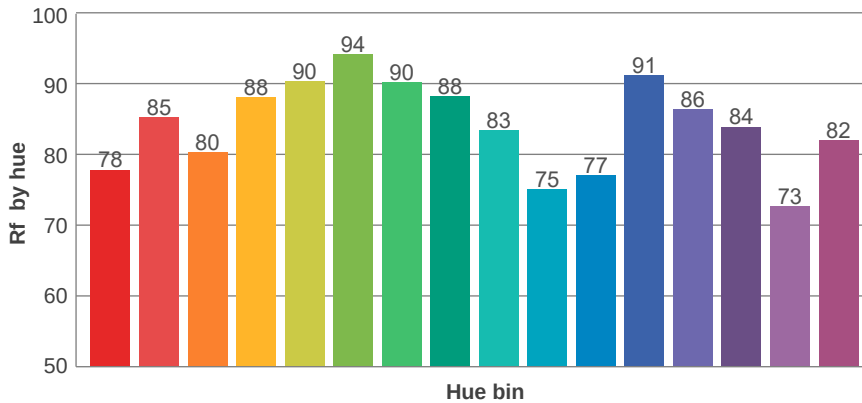
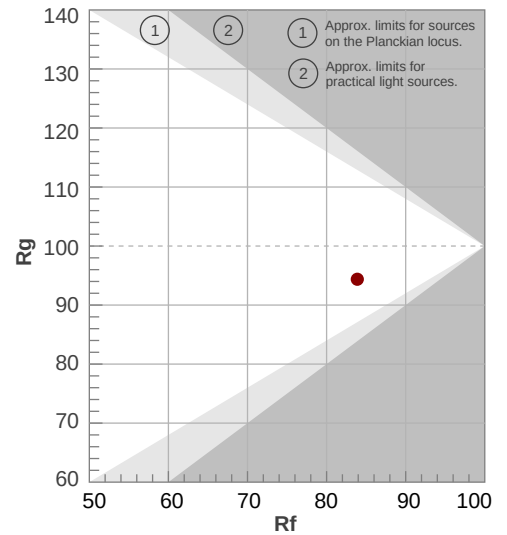
Rf 83.9

Fidelity index Rf

Rg 94.4

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	78	-12%	1%
2	85	-7%	5%
3	80	-4%	10%
4	88	-1%	5%
5	90	-2%	2%
6	94	-1%	-2%
7	90	-6%	-1%
8	88	-7%	2%
9	83	-8%	10%
10	75	-4%	15%
11	77	3%	14%
12	91	5%	2%
13	86	7%	-8%
14	84	2%	-10%
15	73	2%	-23%
16	82	-7%	-7%



Color Evaluation Sample



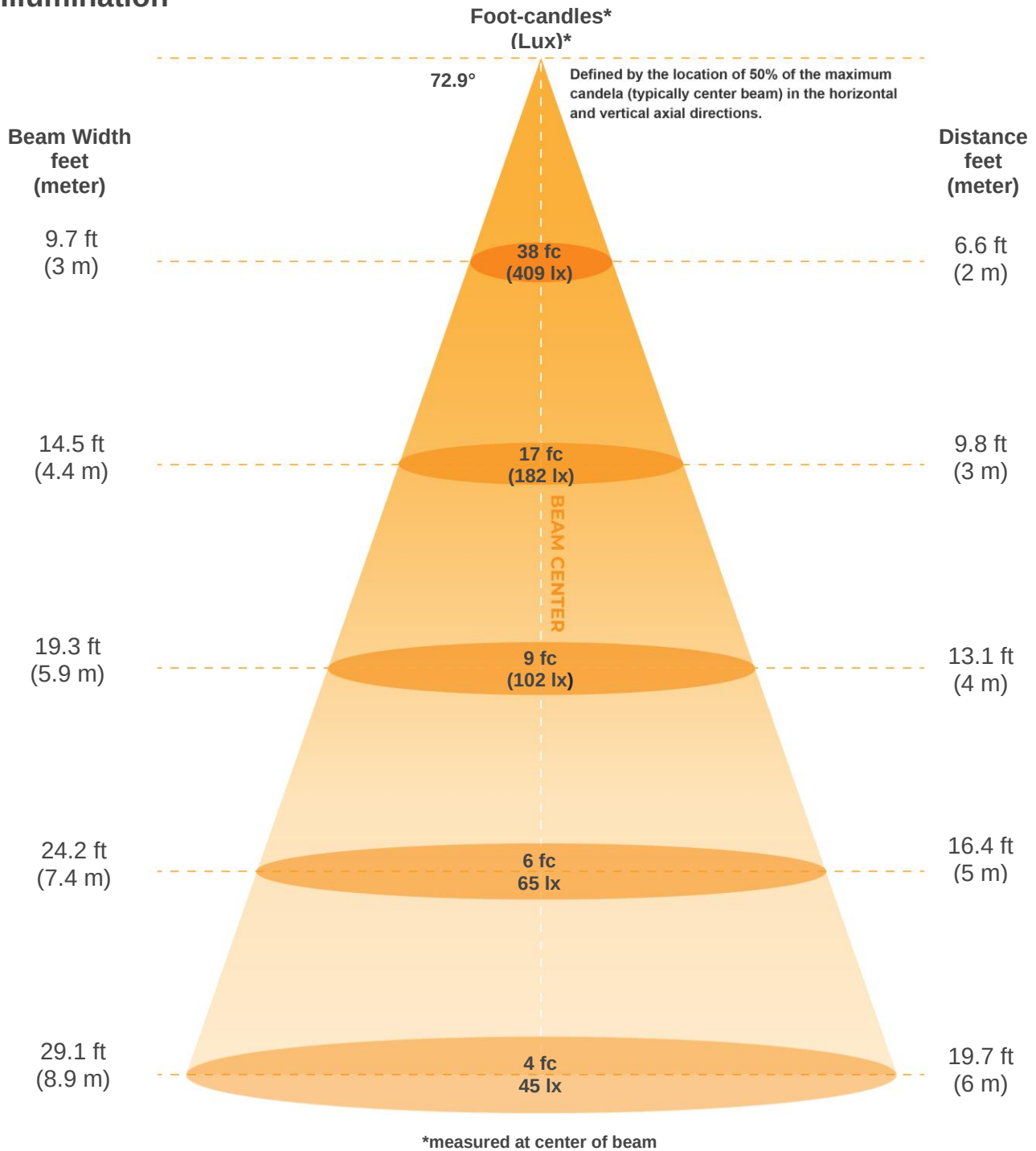
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Illumination



Beam intensities from 1-20m

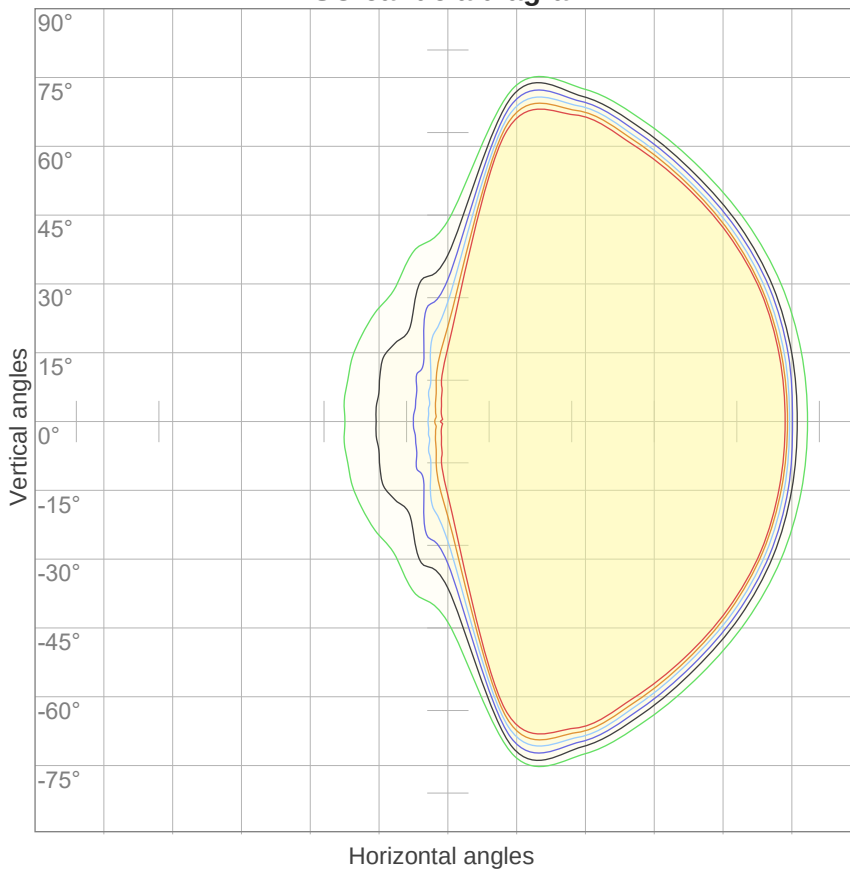
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
1635lx	409lx	182lx	102lx	65lx	45lx	33lx	26lx	20lx	16lx	14lx	11lx	10lx	8lx	7lx	6lx	6lx	5lx	5lx	4lx
151.9fc	38fcd	16.9fcd	9.5fcd	6.1fcd	4.2fcd	3.1fcd	2.4fcd	1.9fcd	1.5fcd	1.3fcd	1.1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd	0.4fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
72.9°	135.4°	196.6°	59.1%	33.1%



ISO Diagrams

ISO candela diagram



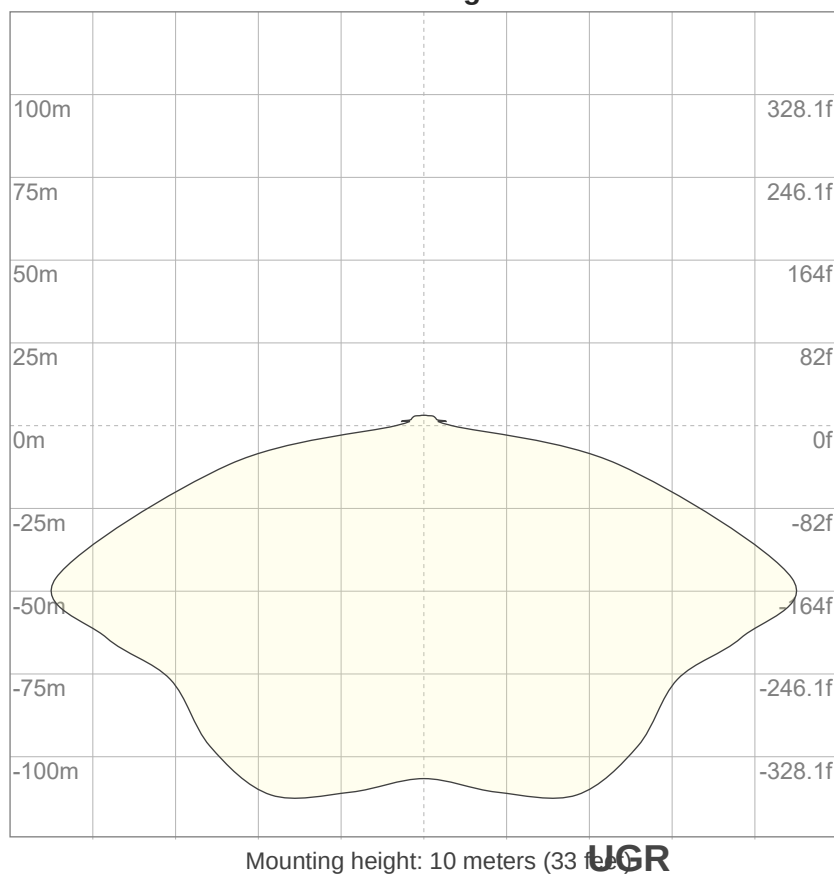
10%	164 cd
20%	327 cd
30%	491 cd
40%	654 cd
50%	818 cd
60%	981 cd
70%	1145 cd
80%	1308 cd
90%	1472 cd

Conditions:

Number of c-planes: 16

Candela at center: 1635 cd

ISO lux diagram



3%	0.491 lx
5%	0.818 lx
10%	1.64 lx
30%	4.91 lx
50%	8.18 lx

Conditions:

Number of c-planes: 16

Lux at center: 16.4 lx

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



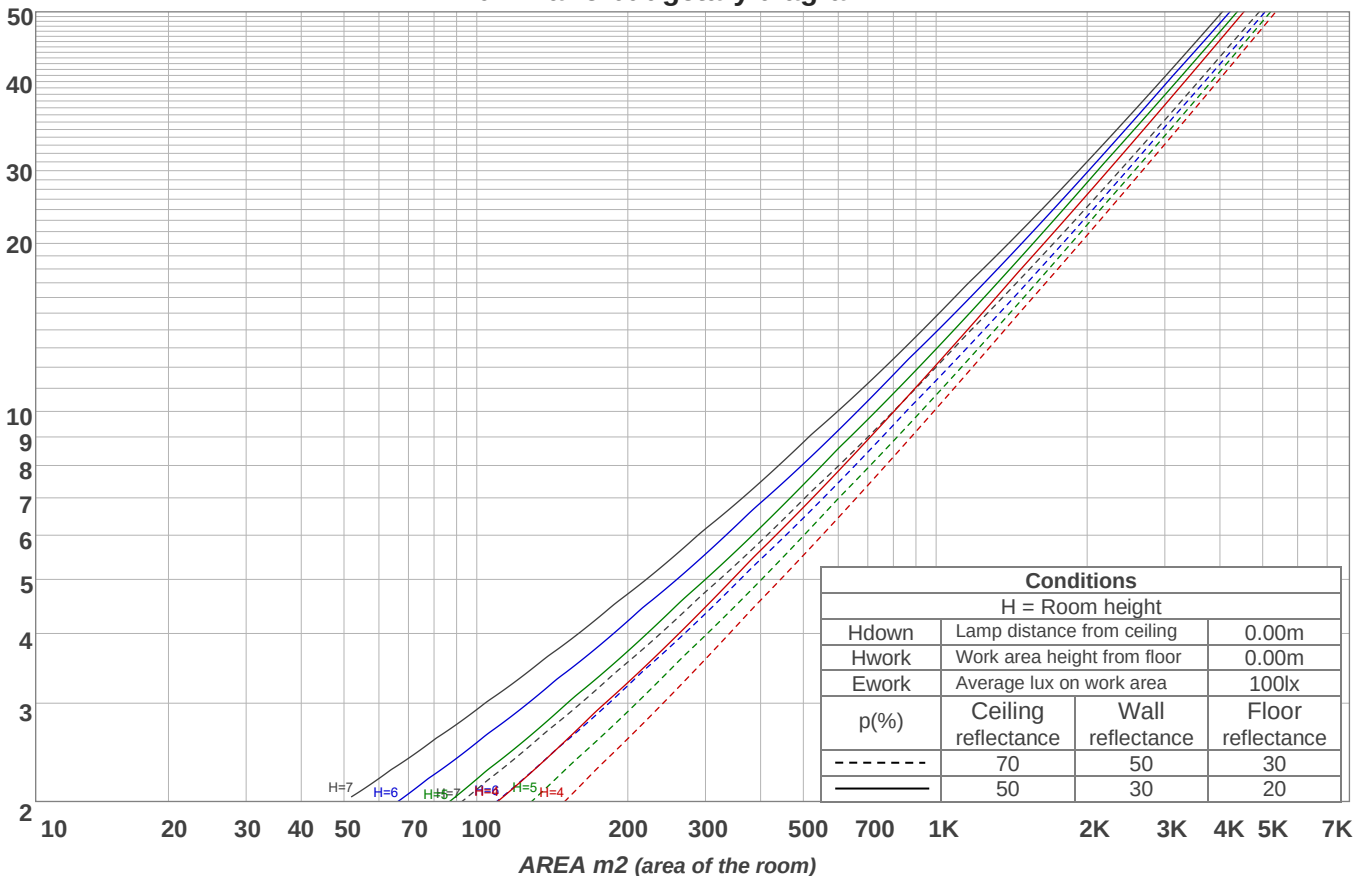
Light Planning

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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	94
1	104	98	93	88	101	95	91	86	90	86	82	85	82	79	80	78	75	73
2	93	83	75	68	89	80	73	66	76	69	64	71	66	61	67	63	59	56
3	83	71	61	53	80	68	60	52	64	57	51	61	54	49	57	52	47	45
4	75	61	51	43	72	59	50	42	56	48	41	53	46	40	50	44	39	36
5	68	54	43	36	65	52	42	35	49	41	34	46	39	33	44	37	32	30
6	62	47	37	30	60	46	37	30	44	35	29	41	34	28	39	33	27	25
7	57	42	33	26	55	41	32	26	39	31	25	37	30	24	35	29	24	21
8	53	38	29	23	51	37	28	22	35	27	22	34	26	21	32	26	21	19
9	49	35	26	20	48	34	25	20	32	25	19	31	24	19	29	23	18	16
10	46	32	23	18	44	31	23	17	30	22	17	28	21	17	27	21	16	14

LAMPS (number of lamps)

Luminaire budgetary diagram



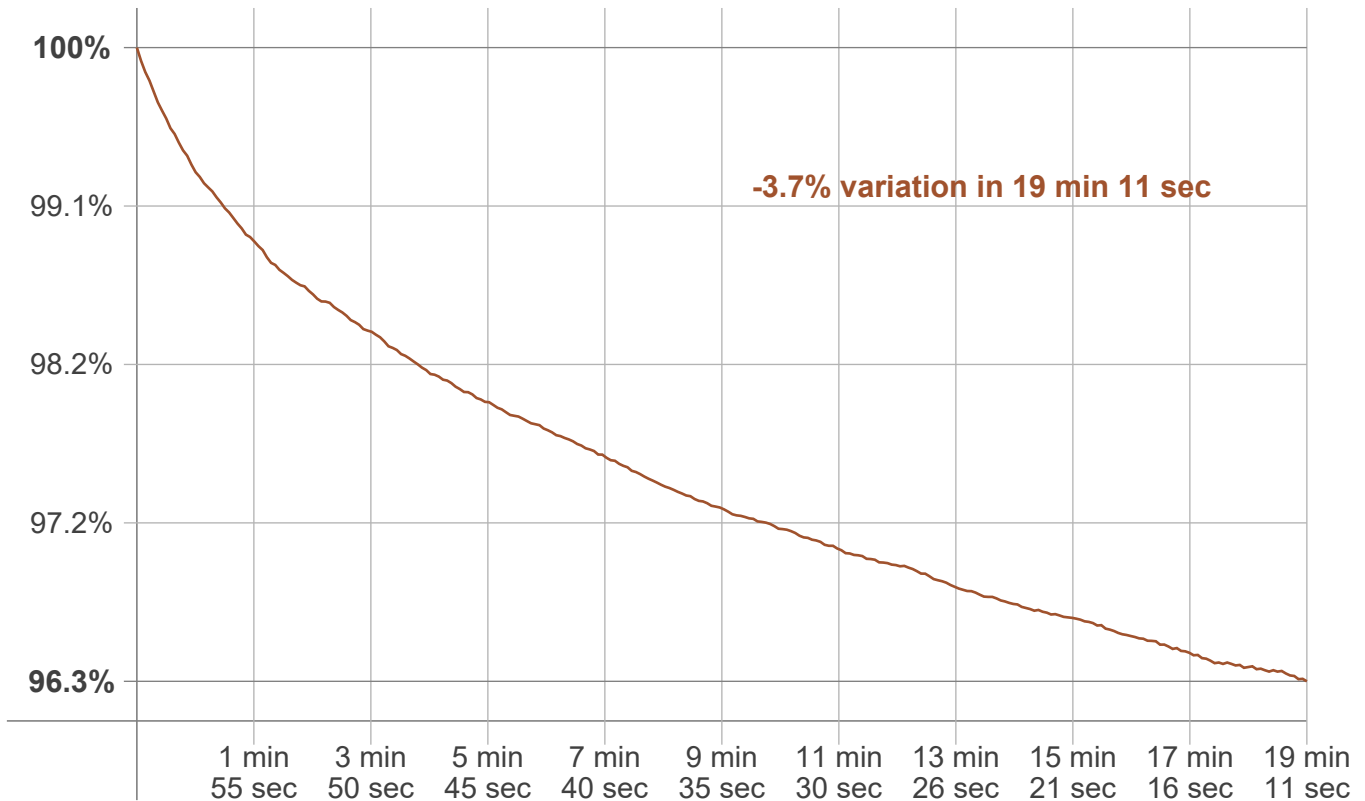
Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
164 lm	576 lm	938 lm	1295 lm	1759 lm	2041 lm	2061 lm	1460 lm	489 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
234 lm	174 lm	119 lm	72.9 lm	42.9 lm	22.4 lm	9.66 lm	3.02 lm	0.730 lm



Stabilization

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 19 min 11 sec
Warmup variation	-3.7%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
4963 K	+72 K	5035 K

Output change

Output start	Output change	Output end
11865 lm	-404 lm	11461 lm

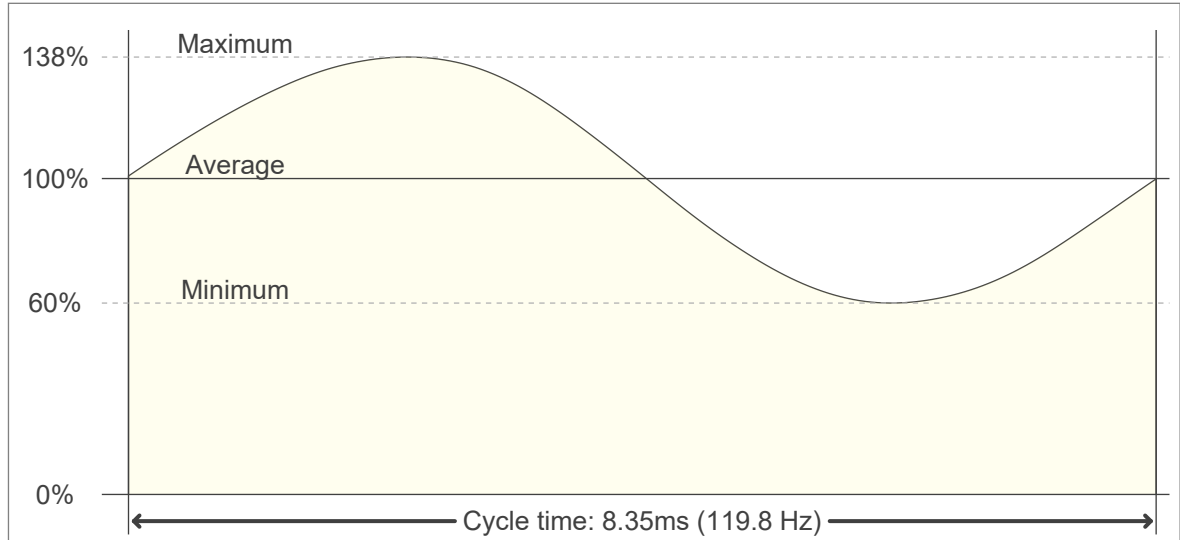


Flicker Specifications

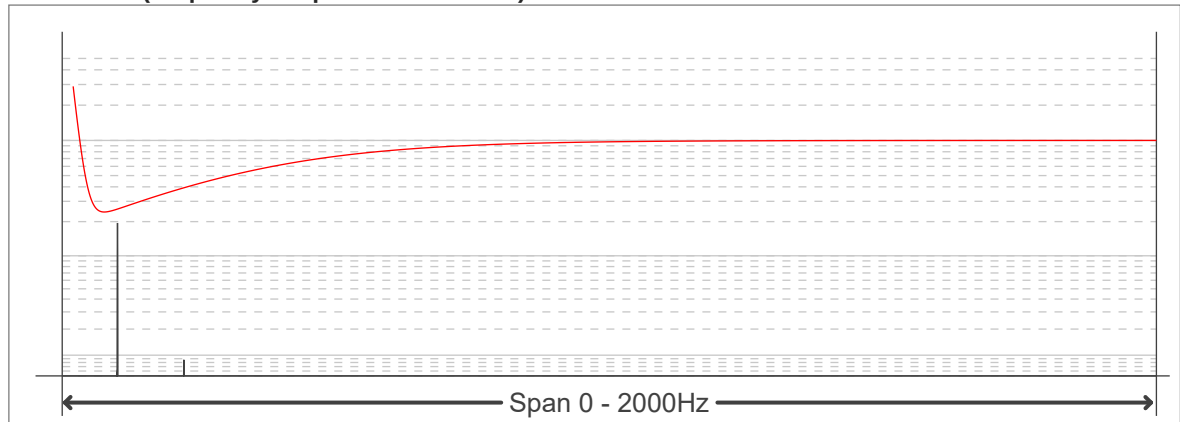
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.76 Hz
Flicker index:	0.12
Flicker percentage:	39.2 %
SVM: (Visual flicker)	1.41

Flicker conditions:

Sample rate:	20000 samples/second
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