LPD-40K12-25

Light efficiency:

102 Lumens/Watt

Light quality:

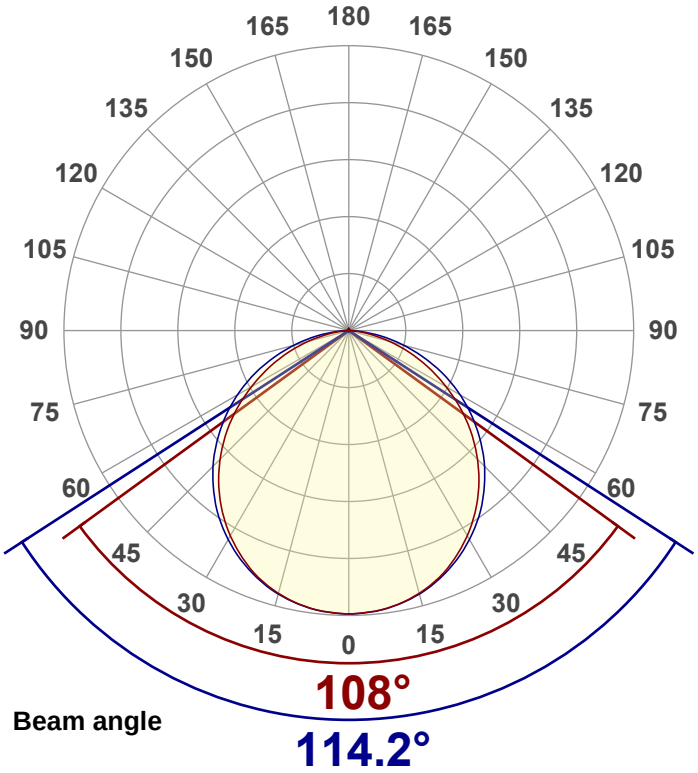
CRI: 81.5

Color temperature:

4044 K

Output: 2629 lm
Peak: 919 cd

Power: 25.8 W
PF: 0.99



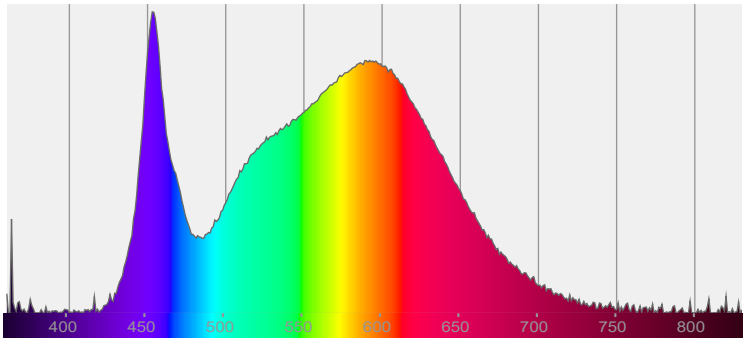
Beam angle

Product name:
LPD-40K12-25

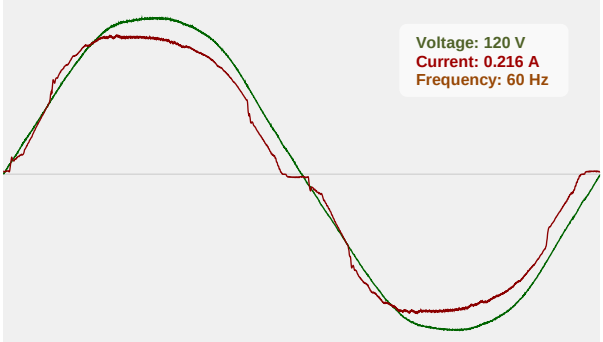
Date and time:
3/8/2024 4:10:12 PM

CIE 1931
x: 0.380
y: 0.379

Spectra

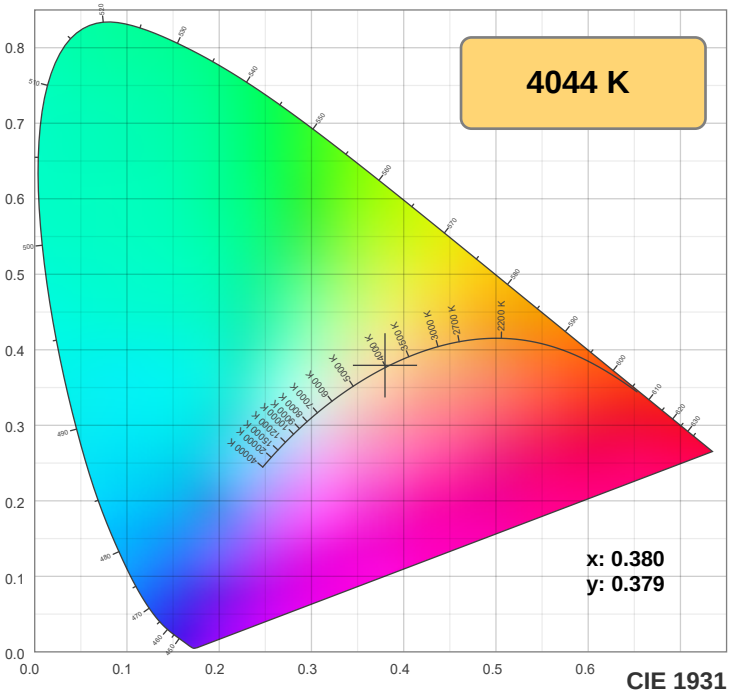


Power

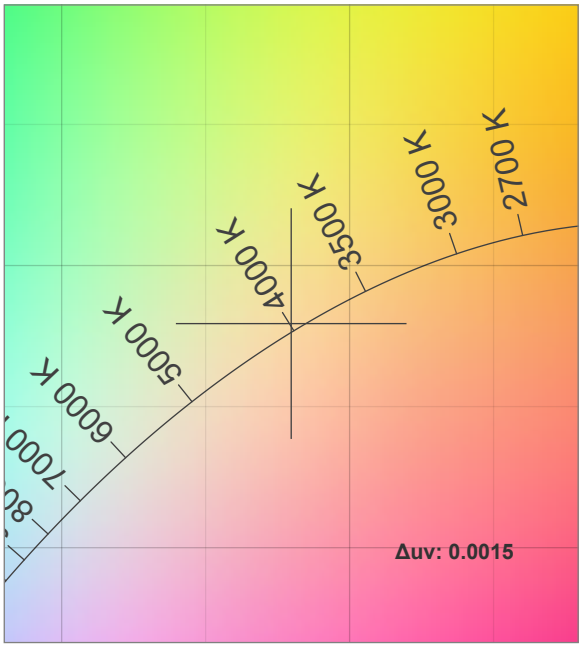


T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

Color Specifications

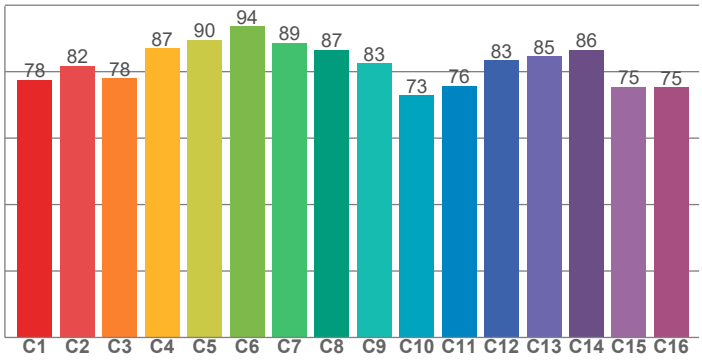


CIE 1931

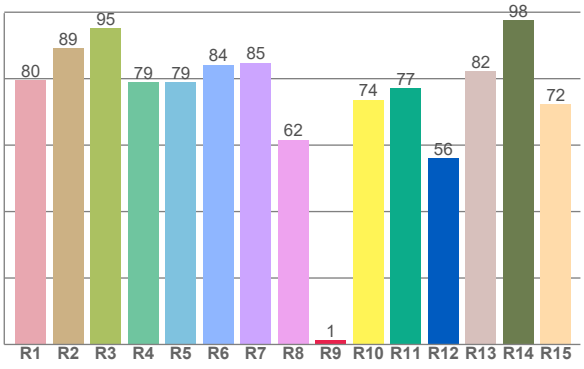


CIE 1931 ZOOM

TM30: 82.2



CRI: 81.5 (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
79.5	89.1	95.2	78.9	79.0	84.2	84.8	61.6	1.3	73.6	77.1	56.1	82.2	97.7	72.4

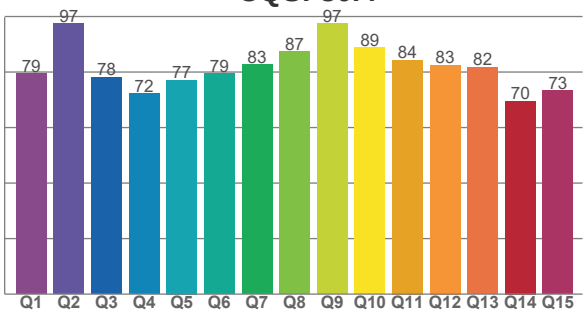
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.5	81.7	77.9	87.0	89.6	93.7	88.8	86.6	82.6	72.9	75.7	83.4	84.6	86.5	75.3	75.3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
79.4	97.4	78.1	72.3	77.1	79.5	82.7	87.4	97.4	88.8	84.3	82.5	81.7	69.5	73.4

CQS: 80.4



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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
4044 K	81.5	1.3	82.2	93.2	80.4	0.380	0.379	0.224	0.335	0.0015

T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

superbrightleds.com

LPD-40K12-25

TM30 Report

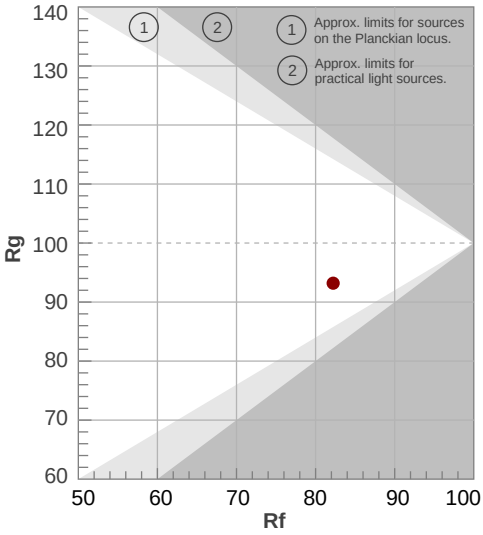
Rf 82.2

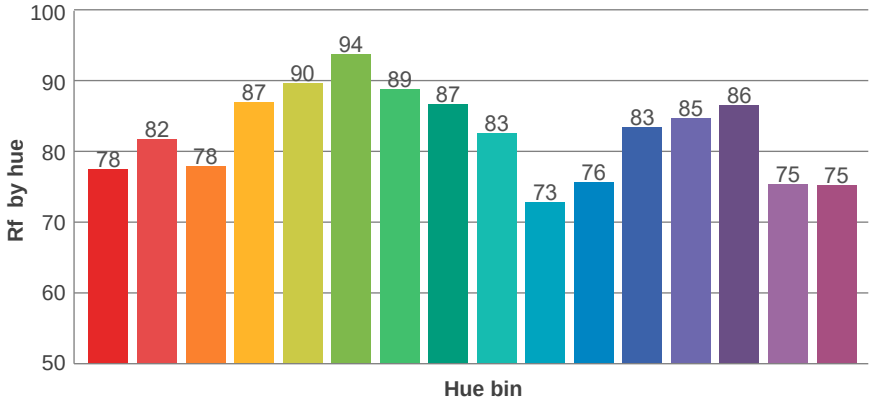
Fidelity index Rf

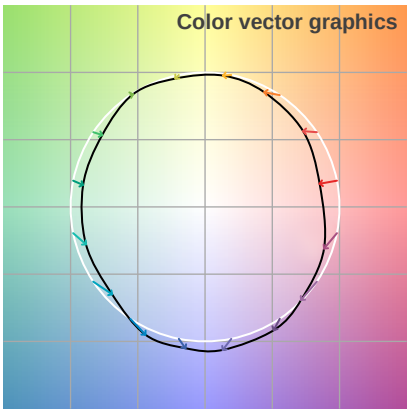
Rg 93.2

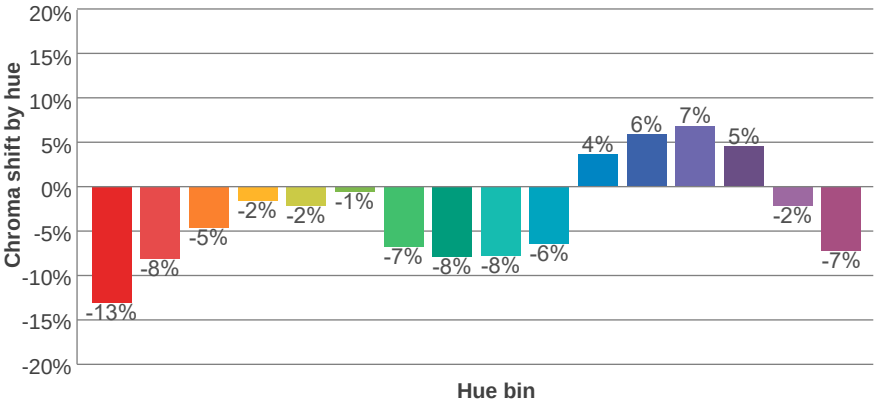
Gammut index Rg

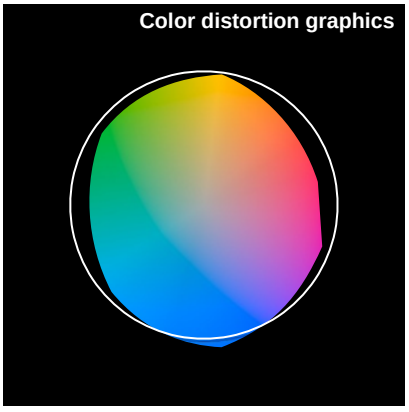
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	78	-13%	0%
2	82	-8%	6%
3	78	-5%	11%
4	87	-2%	6%
5	90	-2%	3%
6	94	-1%	-2%
7	89	-7%	-2%
8	87	-8%	2%
9	83	-8%	10%
10	73	-6%	16%
11	76	4%	16%
12	83	6%	6%
13	85	7%	-8%
14	86	5%	-8%
15	75	-2%	-18%
16	75	-7%	-13%

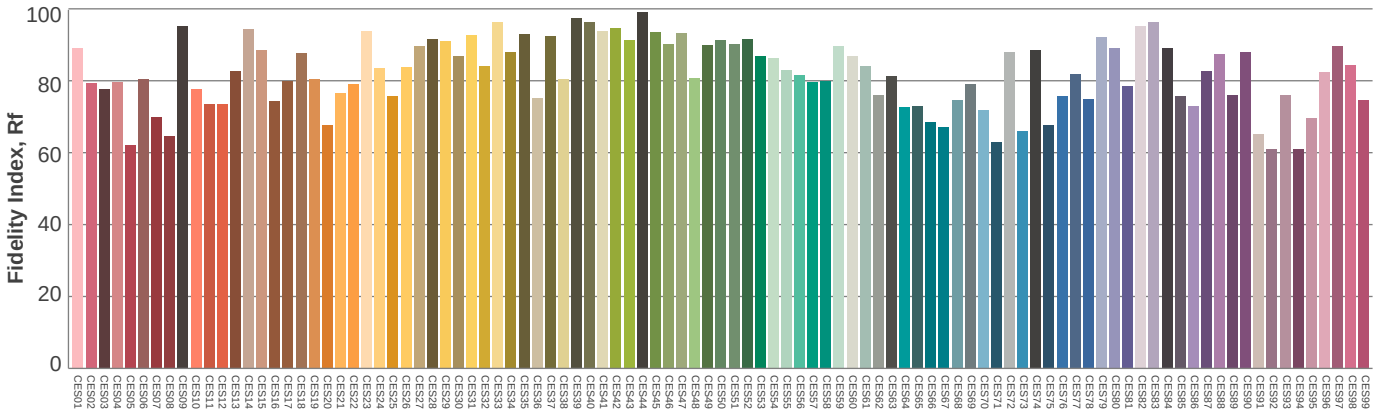






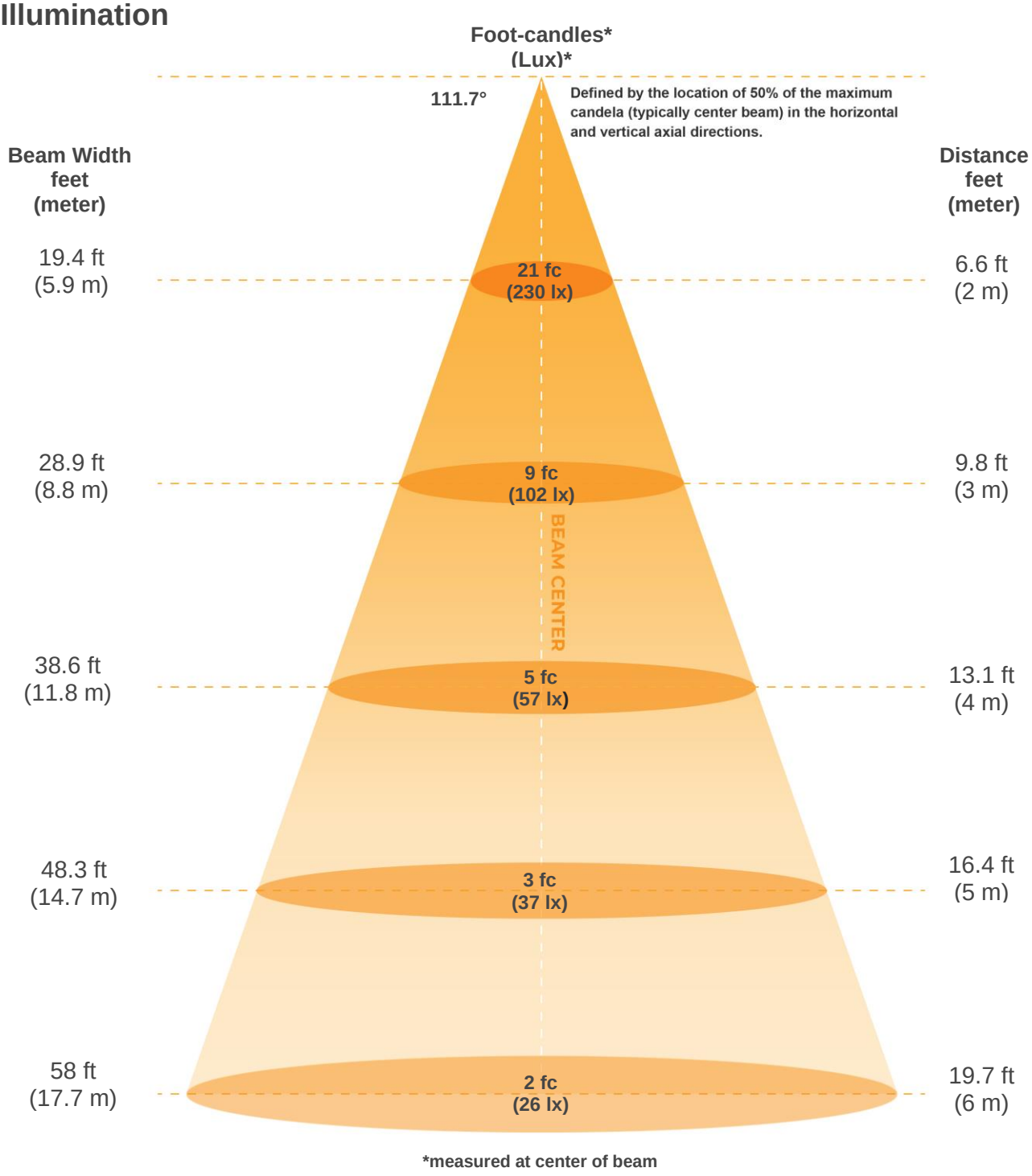






T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

Illumination



Beam intensities from 1-20m

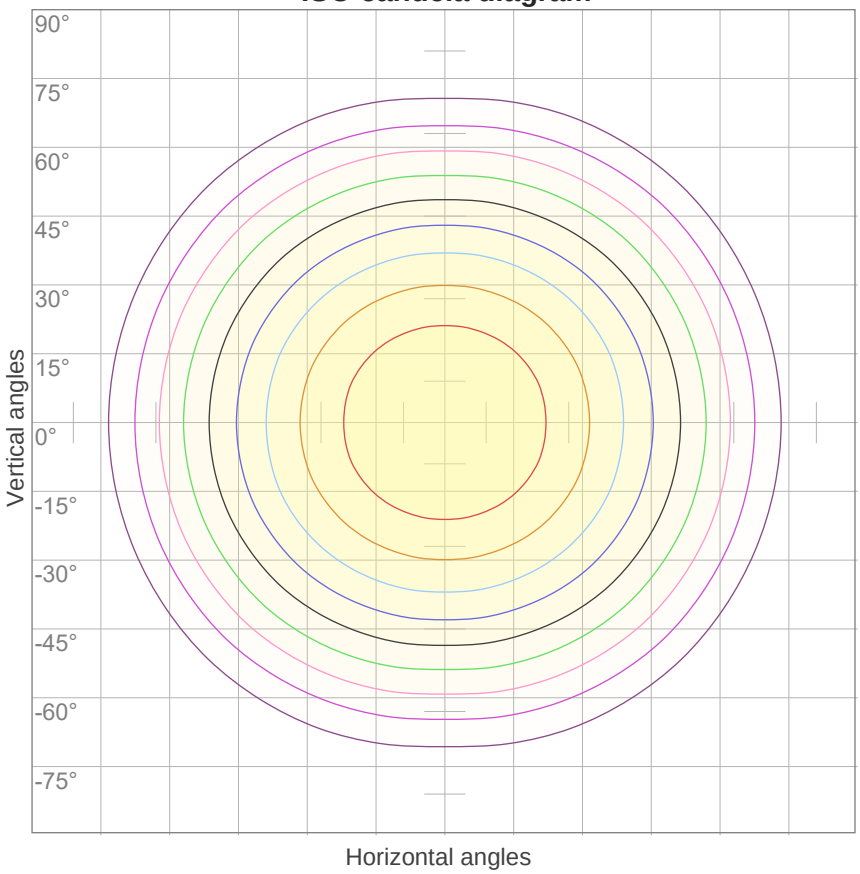
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
918lx	230lx	102lx	57lx	37lx	26lx	19lx	14lx	11lx	9lx	8lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx	3lx	2lx
85.3fcd	21.3fcd	9.5fcd	5.3fcd	3.4fcd	2.4fcd	1.7fcd	1.3fcd	1.1fcd	0.9fcd	0.7fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd

Beam angle X	Beam Angle Y	Field angle X	Field Angle Y	Cutoff angle 2,5%	Intensity ratio in 120°	Intensity ratio in 90°
108°	**114.2°**	**157°**	**163°**	**174.5°**	**78.3%**	**53.5%**

T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

ISO Diagrams

ISO candela diagram



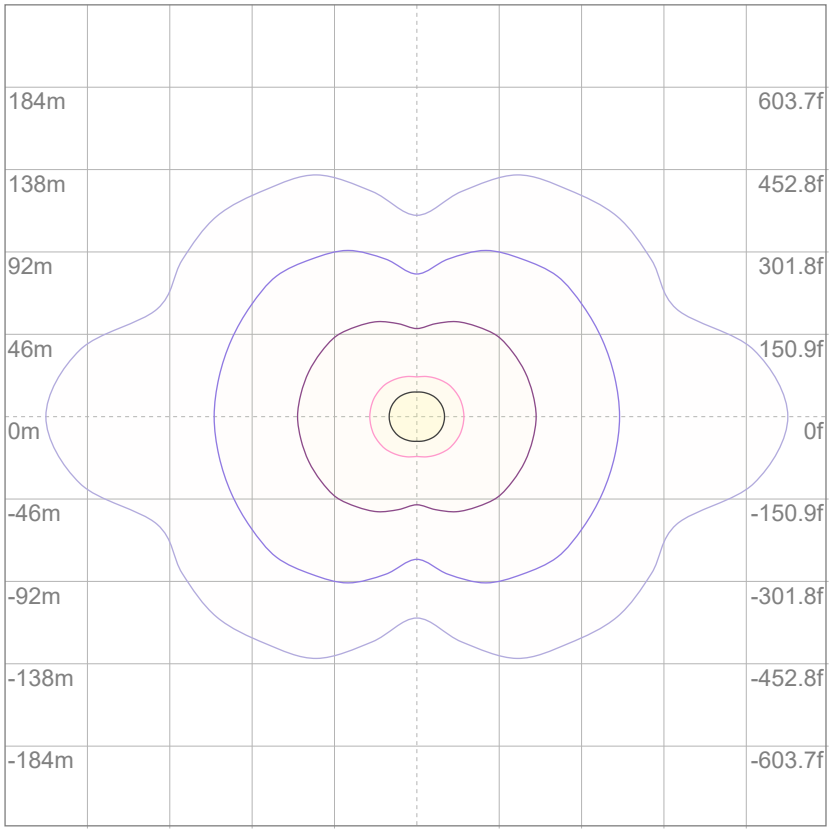
10%	92 cd
20%	184 cd
30%	276 cd
40%	367 cd
50%	459 cd
60%	551 cd
70%	643 cd
80%	735 cd
90%	827 cd

Conditions:

Number of c-planes: 16

Candela at center: 918 cd

ISO lux diagram



Mounting height: 10 meters (33 feet)

3%	0.276 lx
5%	0.459 lx
10%	0.918 lx
30%	2.76 lx
50%	4.59 lx

Conditions:

Number of c-planes: 16

Lux at center: 9.18 lx

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

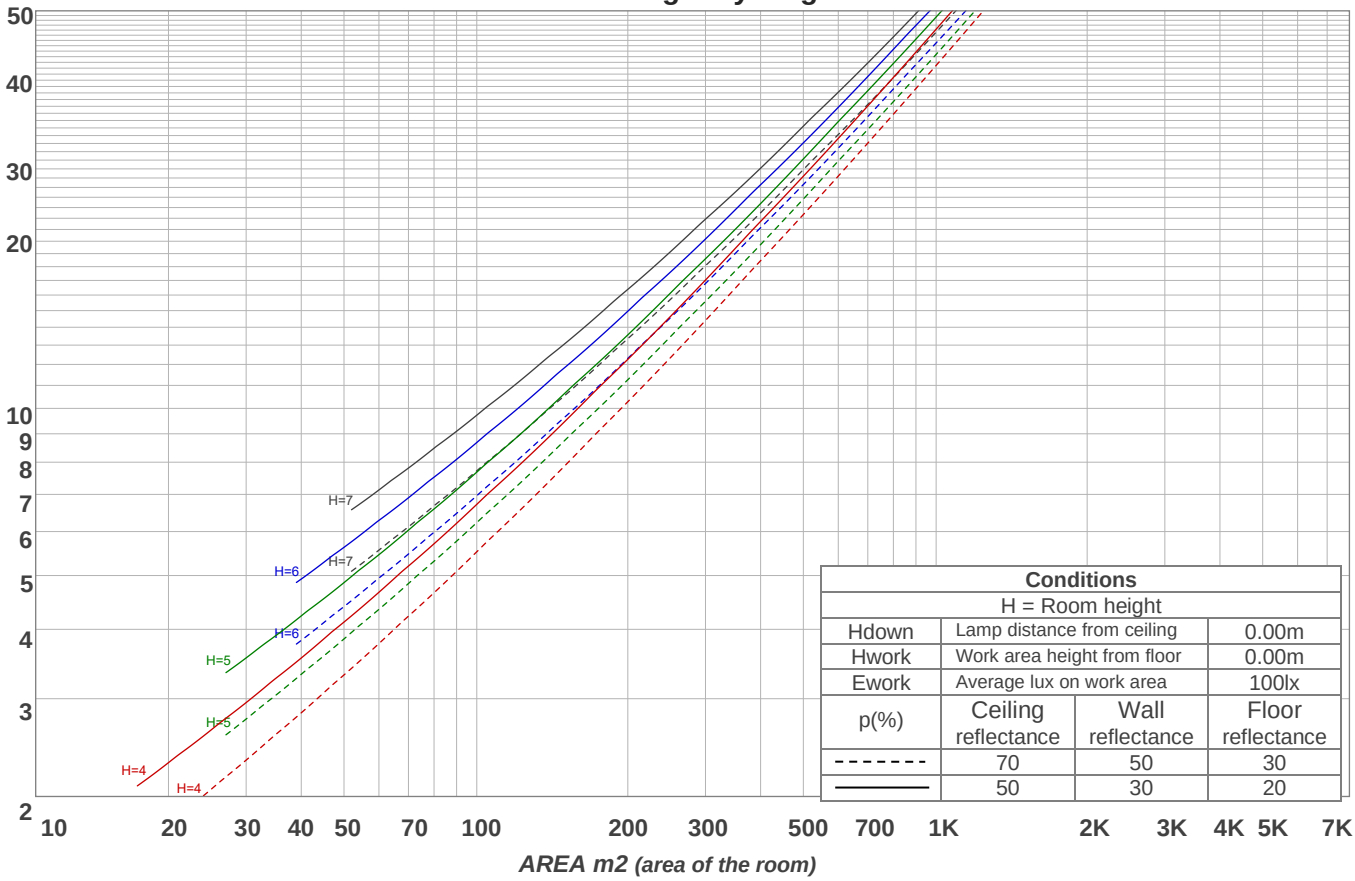
T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

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	101	101	101	99
1	109	104	99	96	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	84	78	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
87.0 lm	249 lm	378 lm	455 lm	470 lm	421 lm	318 lm	180 lm	49.9 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
3.48 lm	3.17 lm	3.18 lm	3.10 lm	2.94 lm	2.66 lm	1.99 lm	1.23 lm	0.441 lm

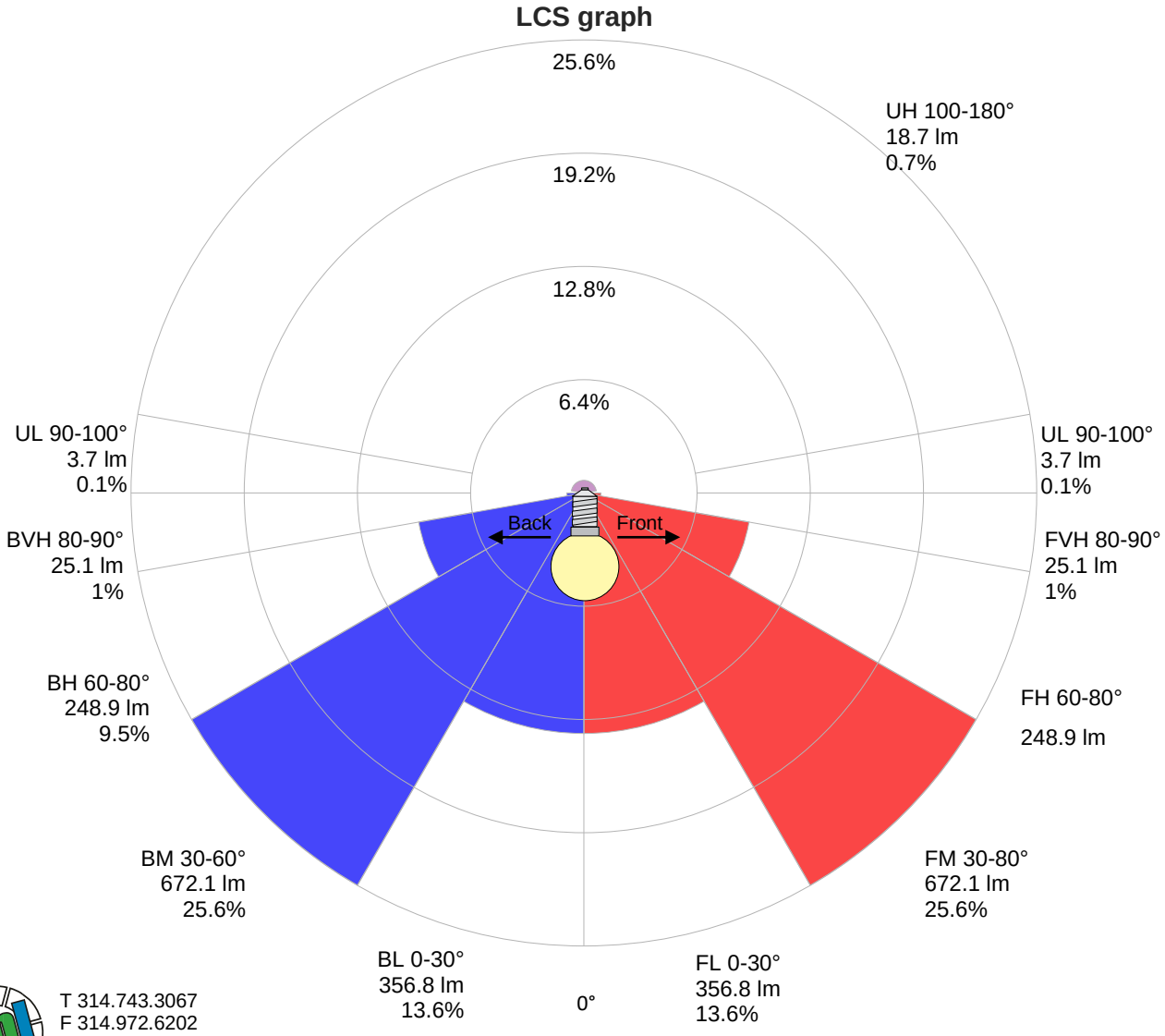
T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

Road Report

LCS table

BUG rating:	B1 U2 G1	
Forward light	Lumens	Lumens %
Low(0-30):	356.8	13.6%
Medium(30-60):	672.1	25.6%
High(60-80):	248.9	9.5%
Very high(80-90):	25.1	1%
Back light		
Low(0-30):	356.8	13.6%
Medium(30-60):	672.1	25.6%
High(60-80):	248.9	9.5%
Very high(80-90):	25.1	1%
Uplight		
Low(90-100):	3.7	0.1%
High(100-180):	18.7	0.7%

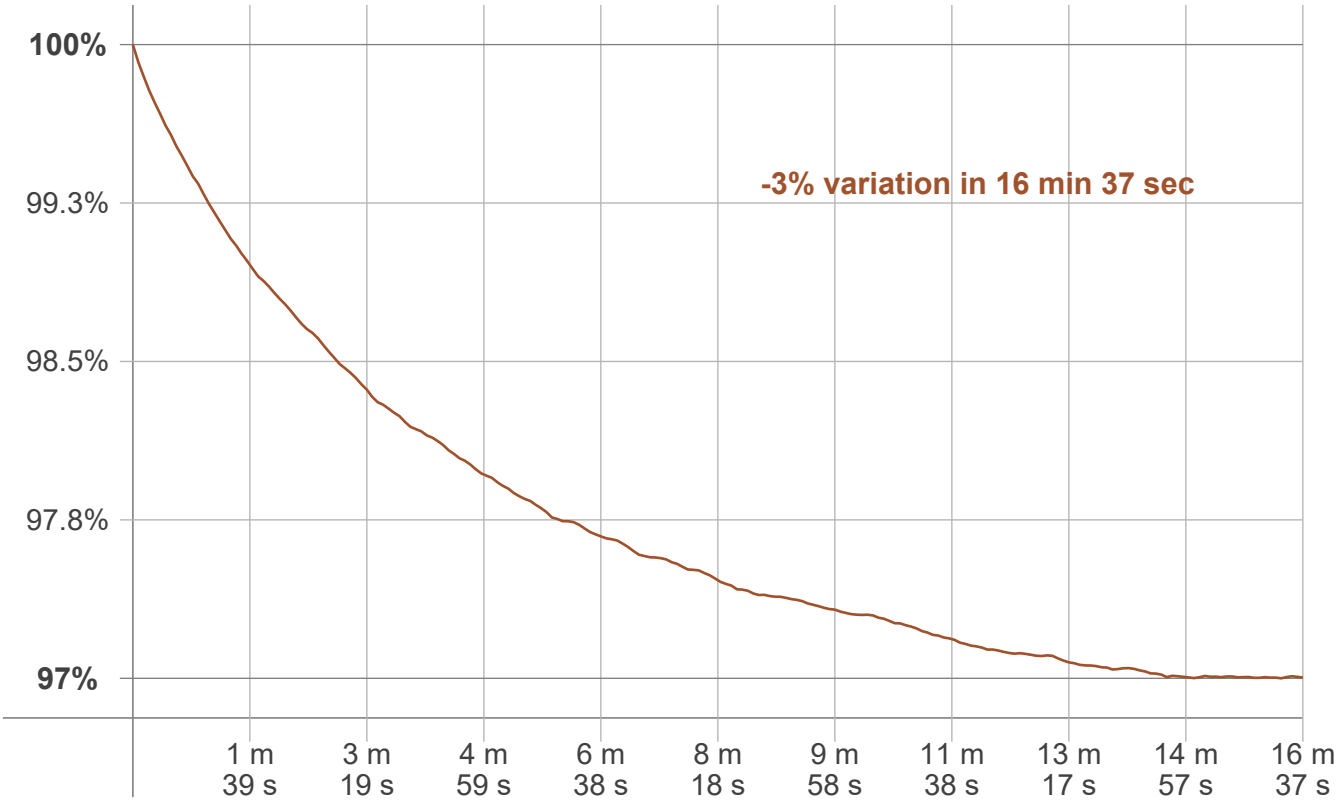
LCS graph



T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

Stabilization

Warmup curve



Warmup result

Warmup time:	**Lamp stabilized in 16 min 37 sec**
Warmup variation	**-3.0%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
4006 K	+38 K	4044 K

Output change

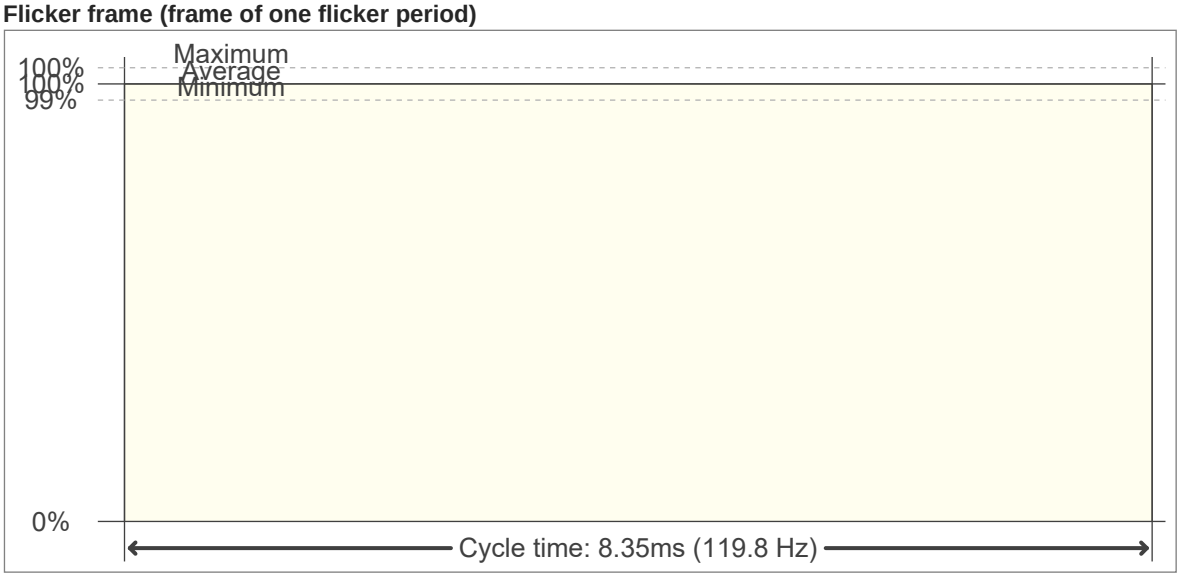
Output start	Output change	Output end
2702 lm	-73 lm	2629 lm

T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

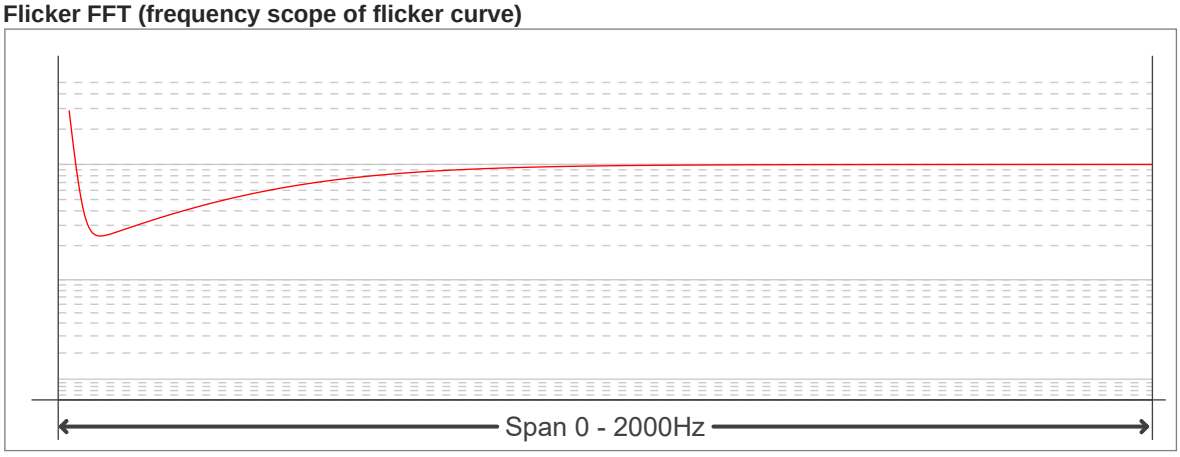
Flicker Specifications

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**
Flicker percentage:	**0.06 %**
SVM: (Visual flicker)	**0**

Flicker conditions:

Sample rate:	**20000 samples/second**

T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/