

Light efficiency:



Output: 23799 lm

Light quality:



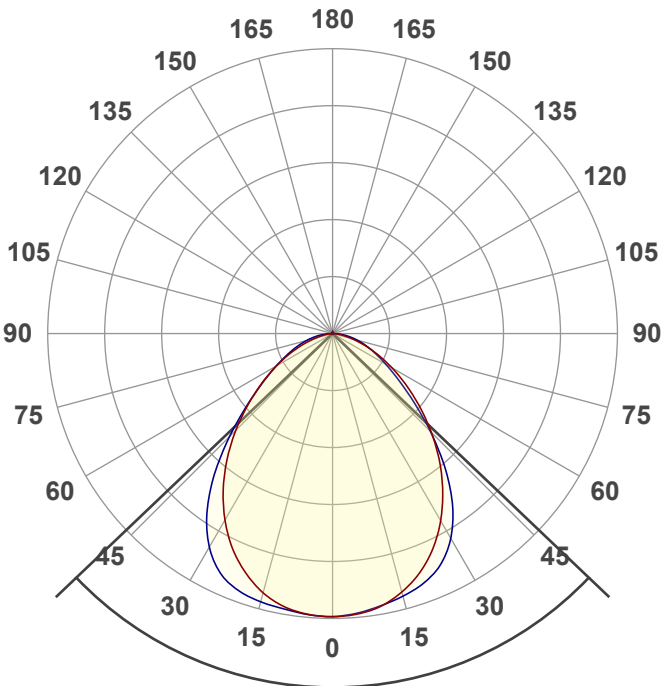
Peak: 10557 cd

Color temperature:



Power: 146.2 W

PF: 1.0



Product name:

FLCKM2-SW3B150-BRK 150W 40K

Date and time:

11/12/2024 1:16:24 PM

Beam angle

92.8°

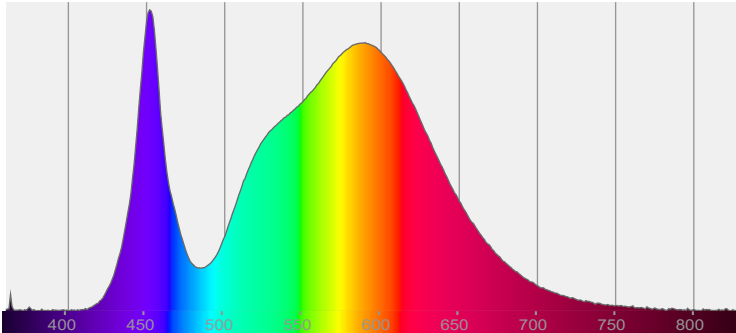


CIE 1931

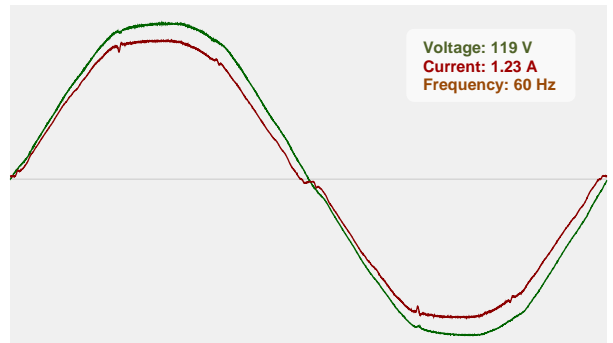
x: 0.385

y: 0.379

Spectra



Power



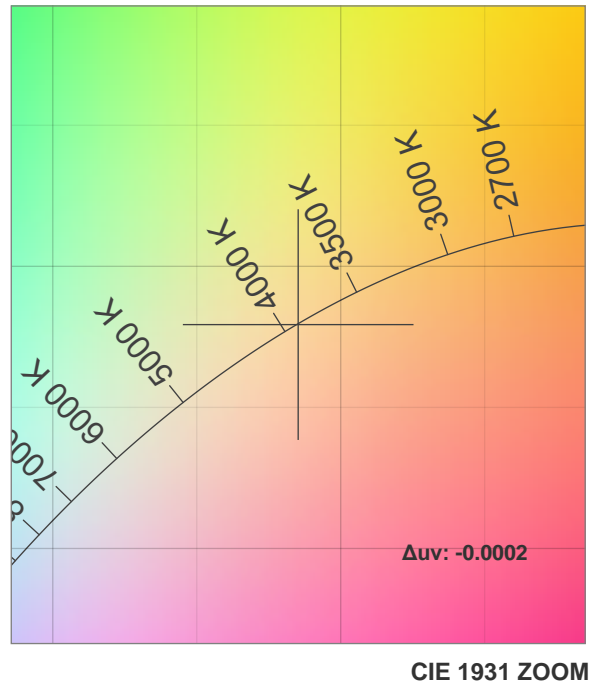
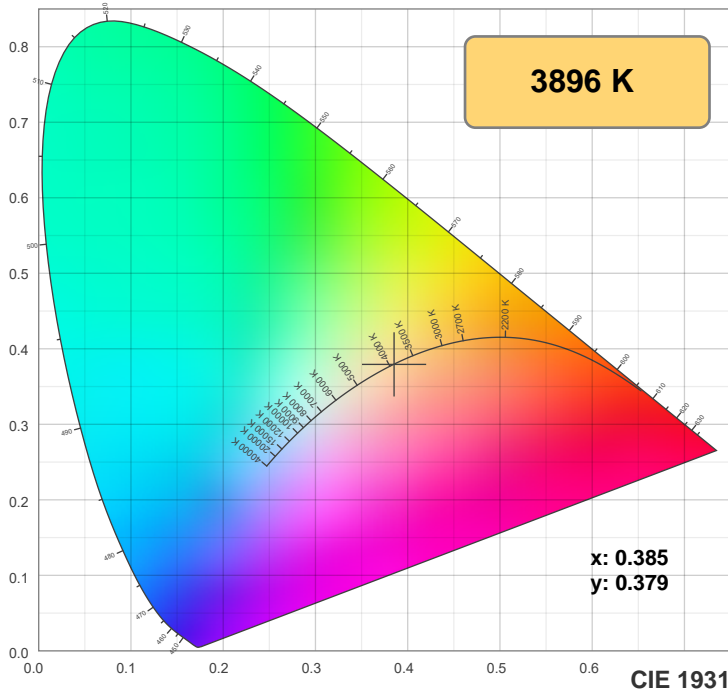
T 314.743.3067

F 314.972.6202

email: [commercial-sales@superbriteleds.com](mailto:commercial-sales@superbriteleds.com)

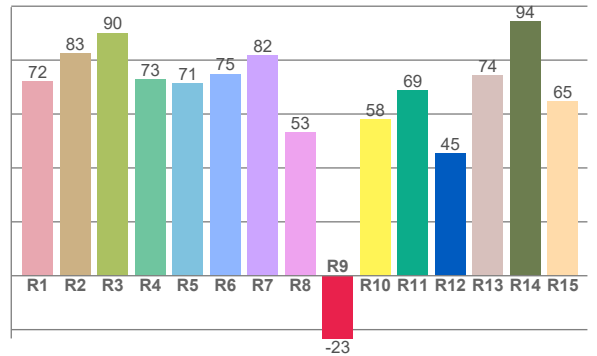
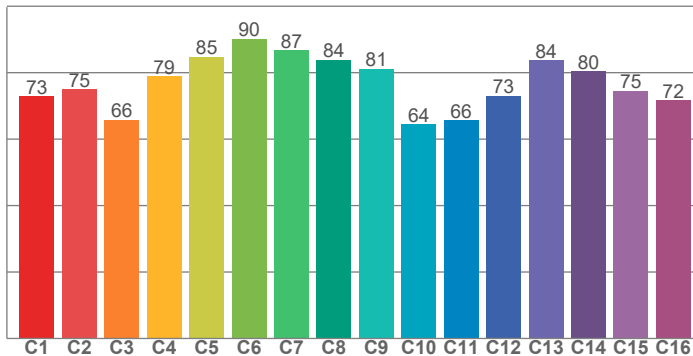
[www.superbriteleds.com/](http://www.superbriteleds.com/)

### Color Specifications



**TM30: 76.7**

**CRI: 74.9 (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
72.1	82.6	90.1	72.9	71.4	74.9	81.7	53.2	-23.3	58.1	68.9	45.4	74.4	94.4	64.8

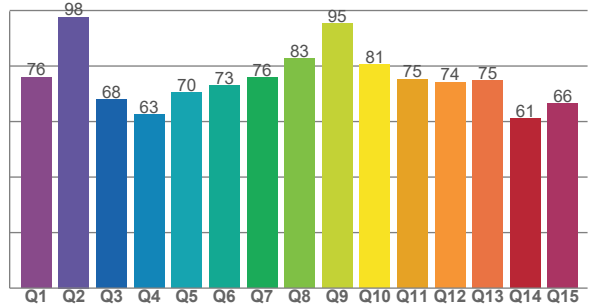
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
72.9	75.0	65.8	78.9	84.8	90.2	86.7	83.8	81.2	64.4	65.7	73.0	83.7	80.4	74.6	71.7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
76.0	97.7	67.9	62.5	70.3	73.0	75.9	82.7	95.2	80.6	75.3	74.2	74.7	61.1	66.5

**CQS: 73.6**



### 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
<b>CCT</b>	<b>CRI</b>	<b>CRI R9</b>	<b>TM30 Rf</b>	<b>TM30 Rg</b>	<b>CQS</b>	<b>x</b>	<b>y</b>	<b>u</b>	<b>v</b>	<b>Δuv</b>
<b>3896 K</b>	<b>74.9</b>	<b>-23.3</b>	<b>76.7</b>	<b>93.8</b>	<b>73.6</b>	<b>0.385</b>	<b>0.379</b>	<b>0.227</b>	<b>0.336</b>	<b>-0.0002</b>

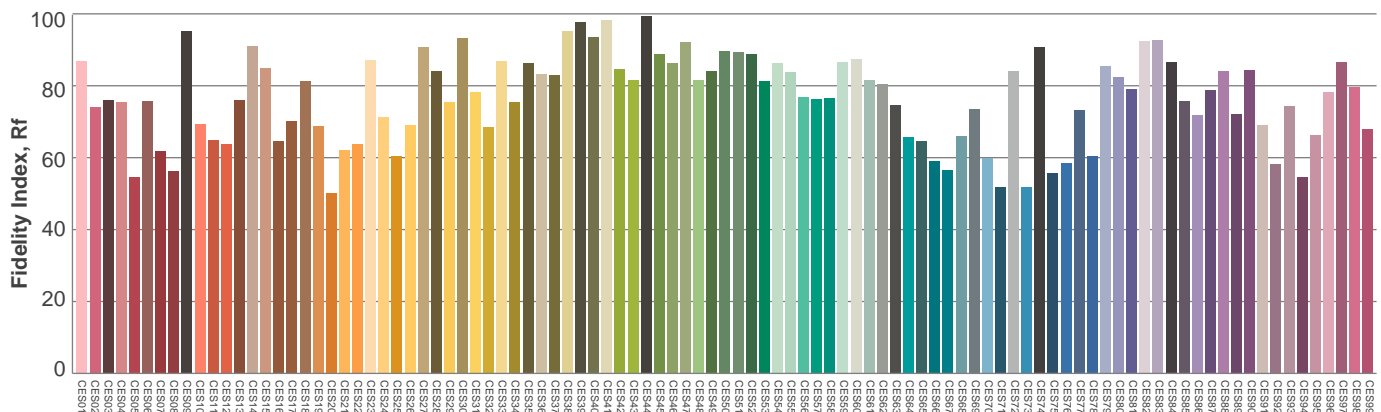
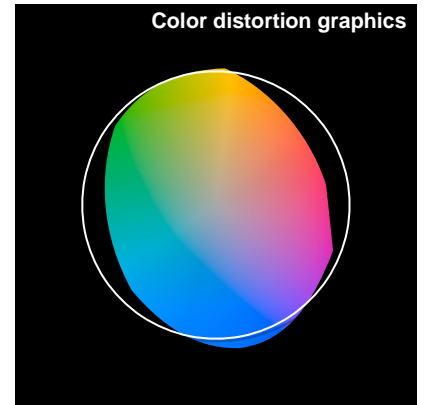
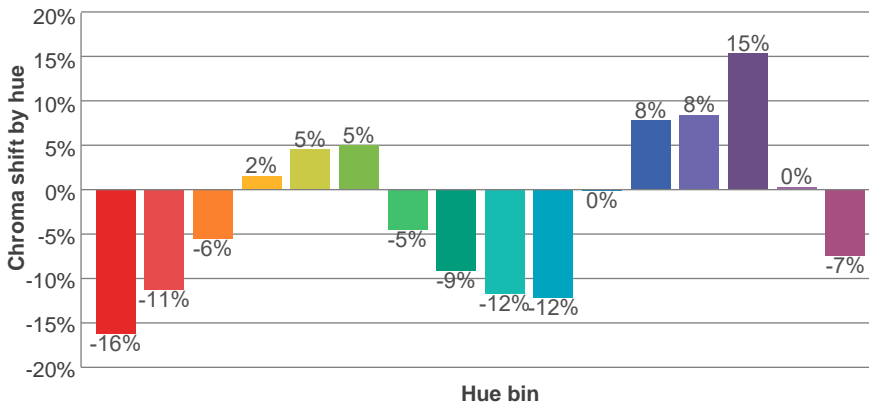
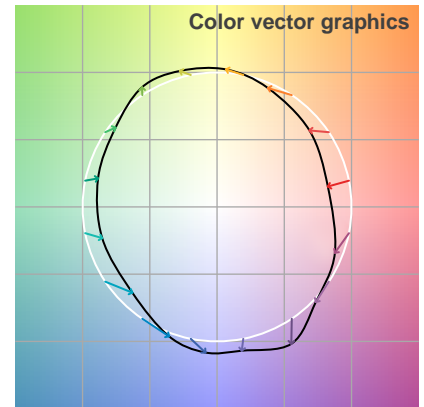
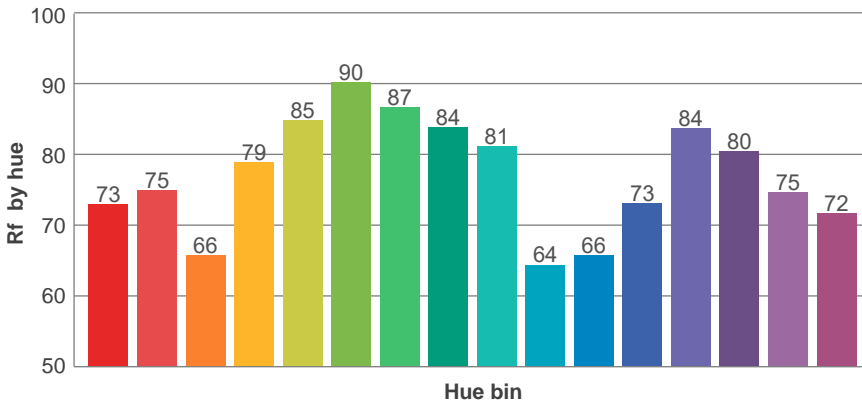
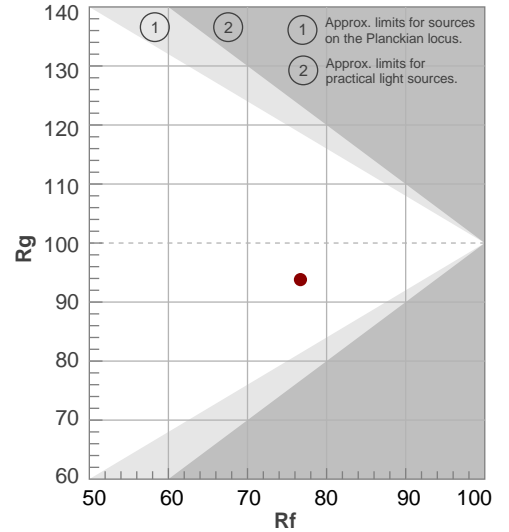


### TM30 Report

**Rf 76.7**  
Fidelity index Rf

**Rg 93.8**  
Gammut index Rg

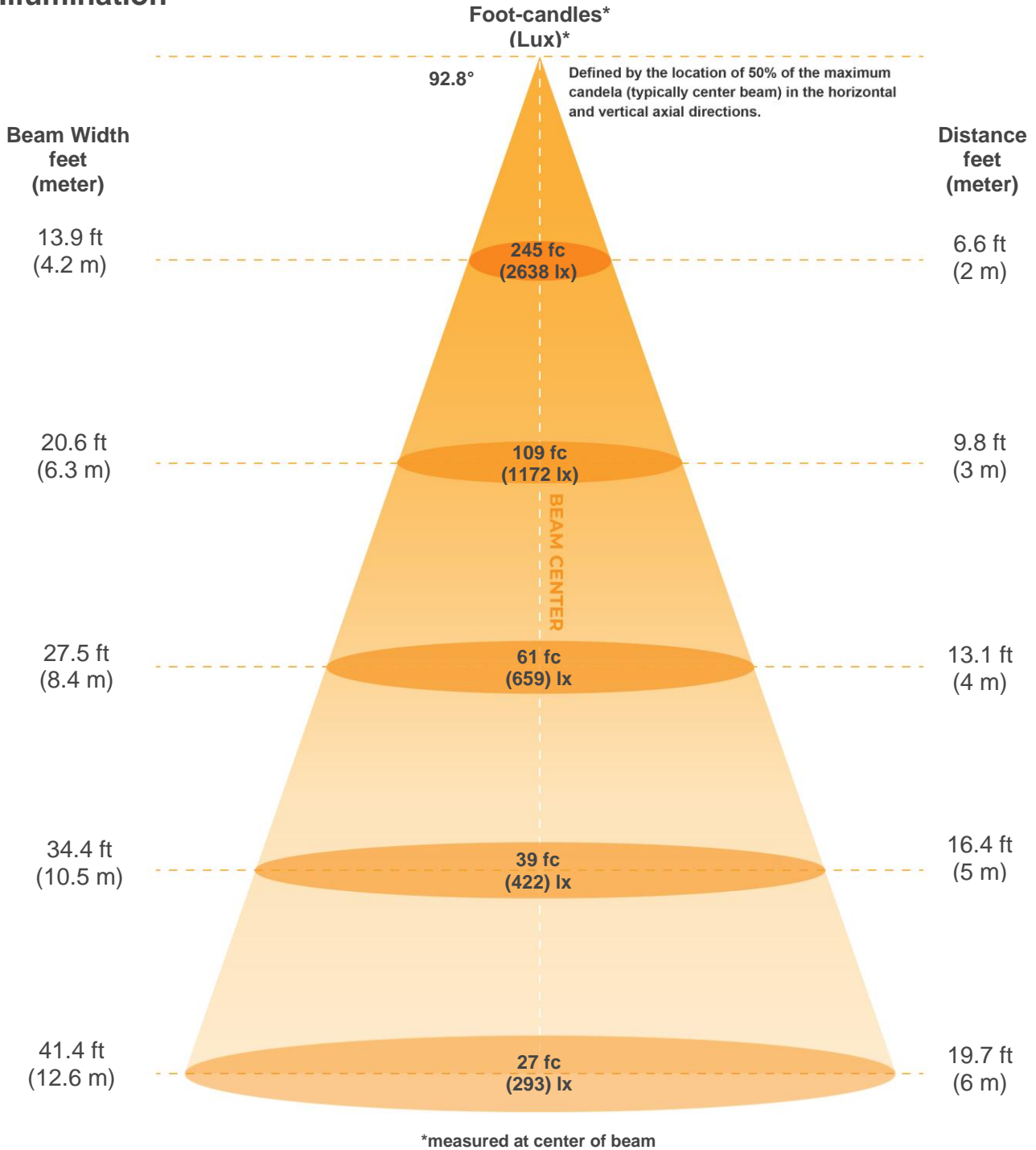
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	73	-16%	-1%
2	75	-11%	9%
3	66	-6%	18%
4	79	2%	13%
5	85	5%	7%
6	90	5%	-3%
7	87	-5%	-7%
8	84	-9%	-4%
9	81	-12%	6%
10	64	-12%	18%
11	66	0%	24%
12	73	8%	13%
13	84	8%	-3%
14	80	15%	-11%
15	75	0%	-18%
16	72	-7%	-16%



Color Evaluation Sample



**Illumination**



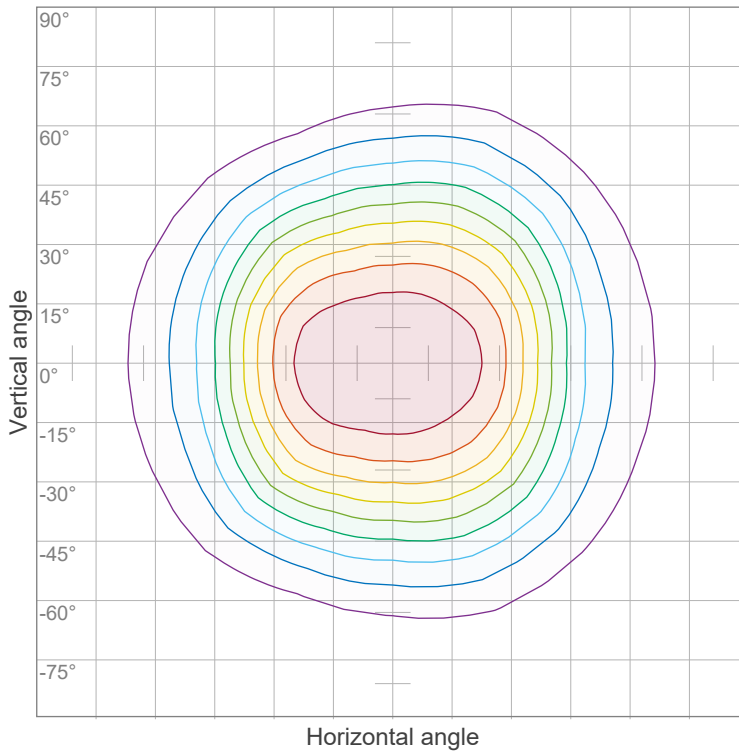
**Beam intensities from 1-20m**

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lux	10551	2638	1172	659	422	293	215	165	130	106	87	73	62	54	47	41	37	33	29	26
fc	980.2	245	108.9	61.3	39.2	27.2	20	15.3	12.1	9.8	8.1	6.8	5.8	5	4.4	3.8	3.4	3	2.7	2.5

Beam angle 50%	Field angle 10%	Cutoff Angle 2.5%	Intensity Ratio in 120° cone	Intensity Ratio in 90° cone
<b>92.8°</b>	<b>147.2°</b>	<b>169.1°</b>	<b>85.6%</b>	<b>63.8%</b>



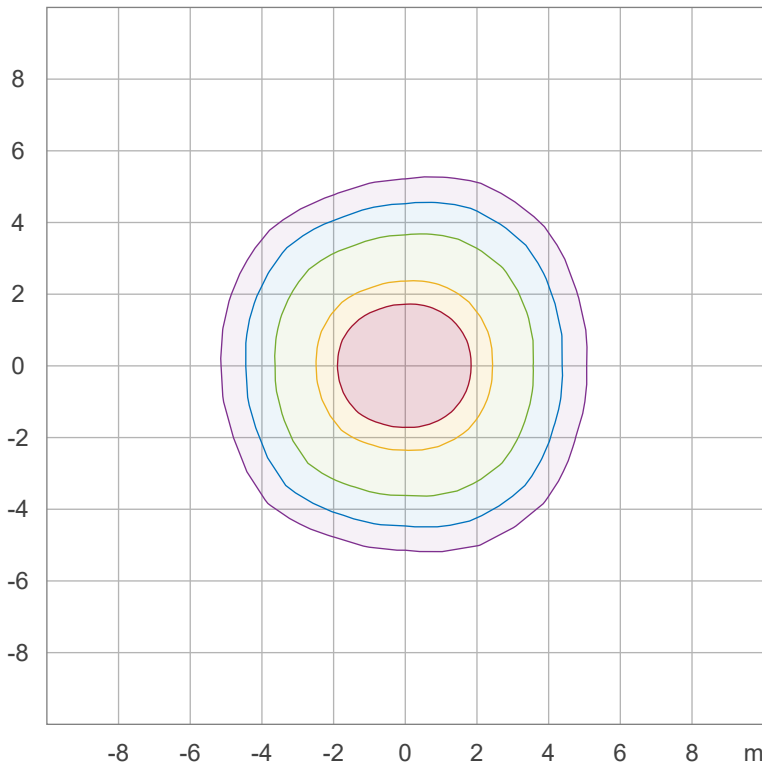
**Iso-intensity Diagram (Iso-candela)**



90 %	9495.6 cd
80 %	8440.5 cd
70 %	7385.4 cd
60 %	6330.4 cd
50 %	5275.3 cd
40 %	4220.3 cd
30 %	3165.2 cd
20 %	2110.1 cd
10 %	1055.1 cd

Peak intensity: 10550.6 cd  
 Number of c-planes: 16

**Iso-illuminance Diagram (Iso-lux)**



50.0 %	586.1 lx
30.0 %	351.7 lx
10.0 %	117.2 lx
5.0 %	58.6 lx
3.0 %	35.2 lx

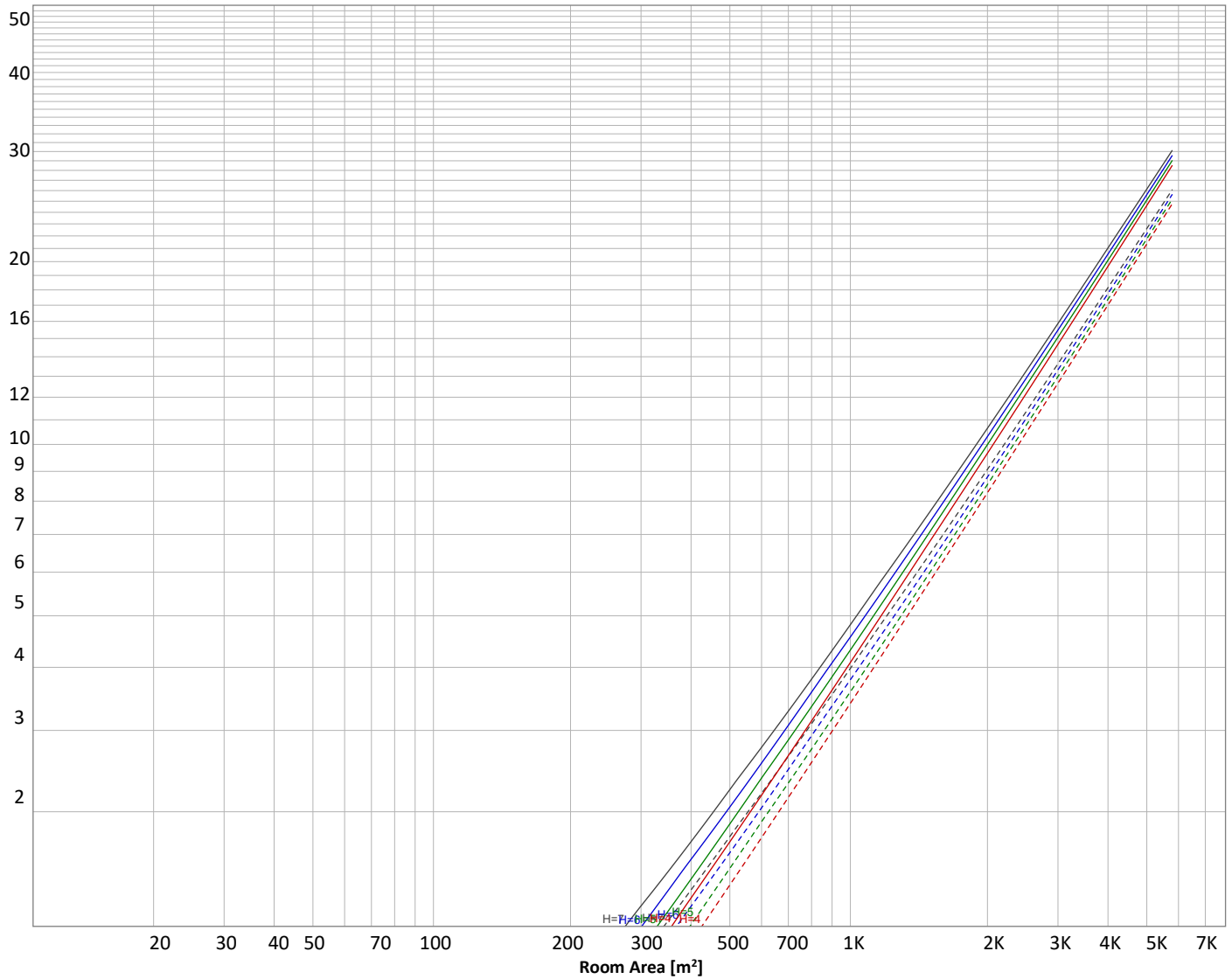
Peak illuminance: 1172.3 lx  
 Mounting height: 3.0 m  
 Number of c-planes: 16





**Luminaire budgetary diagram**

Uncorrected, comprehensive UGR table according to 117-1995  
LAMPS (number of lamps)



**Conditions**

H = Room height	Flux = 23799 lm	ρ(%)			
H <sub>down</sub> = Lamp distance from ceiling =	0.00 m	Line type	Ceiling reflectance	Wall reflectance	Floor reflectance
H <sub>work</sub> = Work area height from floor =	0.00 m	-----	70	50	30
E <sub>work</sub> = Average lux on work area =	100 lx	—————	50	30	20

**Zonal Lumen Summary**

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
995 lm	2845 lm	4259 lm	4814 lm	4300 lm	3152 lm	1975 lm	996 lm	301 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
25.9 lm	18.0 lm	20.1 lm	21.6 lm	22.4 lm	21.1 lm	17.5 lm	11.7 lm	4.14 lm

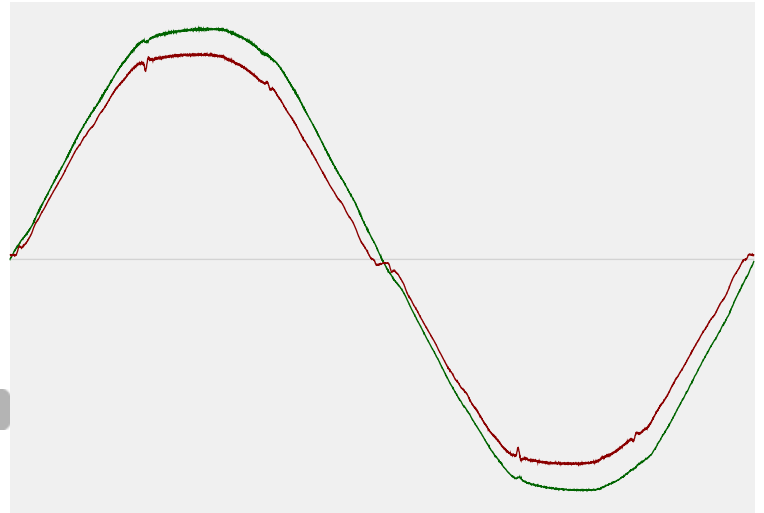


**Power Details**

**Input Power**

Power feed to light source	146.2 W
Frequency of input power	60 Hz
RMS Input voltage feed, $V_{RMS}$	119 V
RMS Input current feed, $I_{RMS}$	1.23 A
Volt-Ampere or apparent power = $V_{RMS} * I_{RMS}$	146.46 VA
Displacement factor of AC power feed	1.0
Power factor of AC current feed	1.0
Total harmonic distortion of the current	5.04%
Total harmonic distortion of the voltage	2.54%

**Input Power Curve**



**Efficiency**

Radiated power efficiency 46.9%



Lumen efficiency 163 lm/W



**Stabilization Details**

**Warmup Conditions**

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

**Color Temperature Change**

CCT start	3878 K
CCT shift	+18 K
CCT end	3896 K

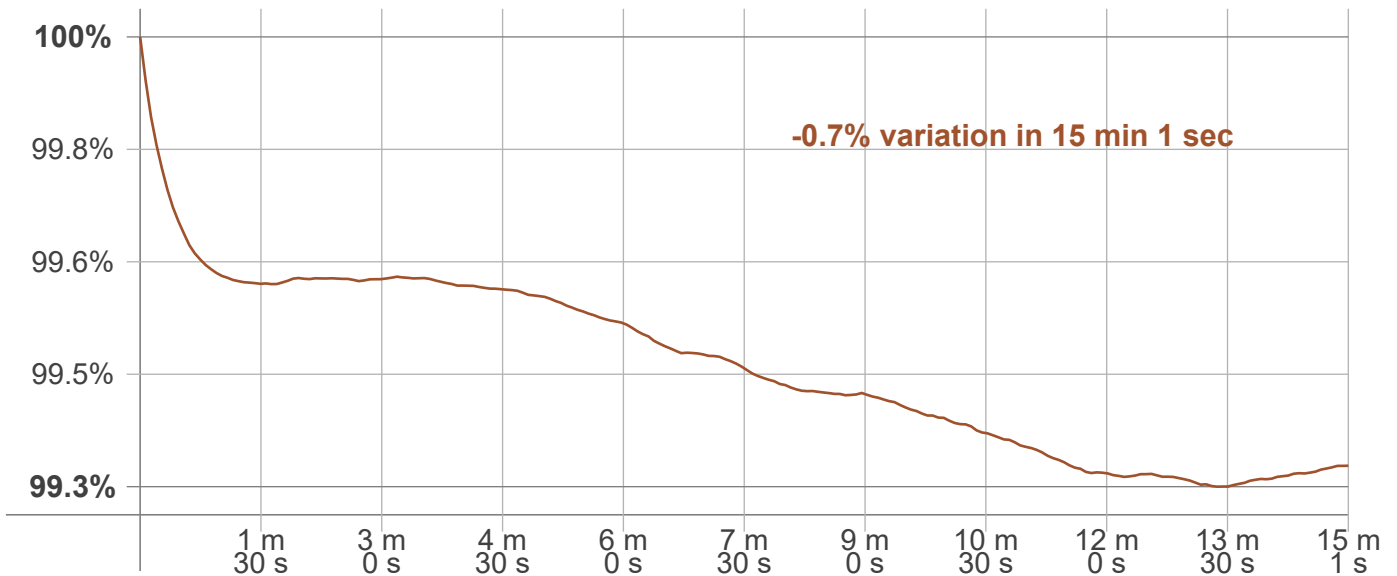
**Warmup Result**

Total warmup time	Lamp stabilized in 15 min 1 sec
Warmup variation	-0.7%

**Output Change**

Output start	23931 lm
Output change	-131 lm
Output end	23799 lm

**Stabilization Curve**



**Flicker /TLA details**



T 314.743.3067  
 F 314.972.6202  
 email: [commercial-sales@superbrightleds.com](mailto:commercial-sales@superbrightleds.com)  
[www.superbrightleds.com/](http://www.superbrightleds.com/)

Flicker Meter Type: Viso Systems LabFlicker  
 Frequency of input power: 60 Hz  
 Flicker/TLA sample rate: 20000 samples/s

Measurement time: PstLM 180 sec  
 All other indices: 1.2 sec

**Flicker indices according to Illuminating Engineering Society (IES)**

Flicker frequency: 119.76 Hz  
 Percent Flicker: 0.88 %  
 Flicker index: 0

**Flicker indices per California Energy Commission (CEC) 2016b**

JA8/10 40 Hz: 0.15 %  
 JA8/10 90 Hz: 0.23 %  
 JA8/10 200 Hz: 0.63 %  
 JA8/10 400 Hz: 0.78 %  
 JA8/10 1000 Hz: 0.89 %

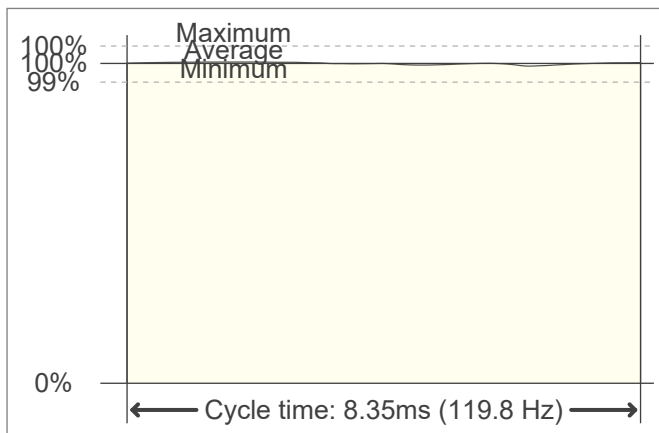
**TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC 61000-4-15)**

PstLM value (F < 80 Hz): 0.13  
 SVM value (80 < F < 2000 Hz): 0.01

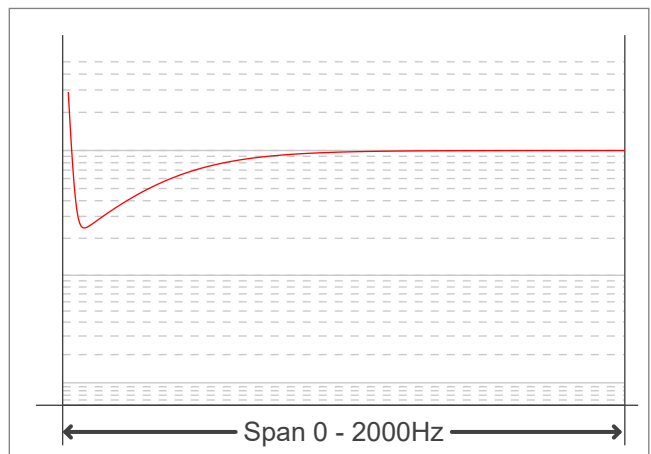
**Flicker indices according to Lighting Research Center (2015)**

Perception metric, Assist Mp: 0.08

**Flicker frame (frame of one flicker period in time domain)**



**Flicker FFT (flicker curve in frequency domain)**



**IEEE 1789 Frequency/modulation plot**

