Light efficiency:

175 Lumens/Watt

Light quality:

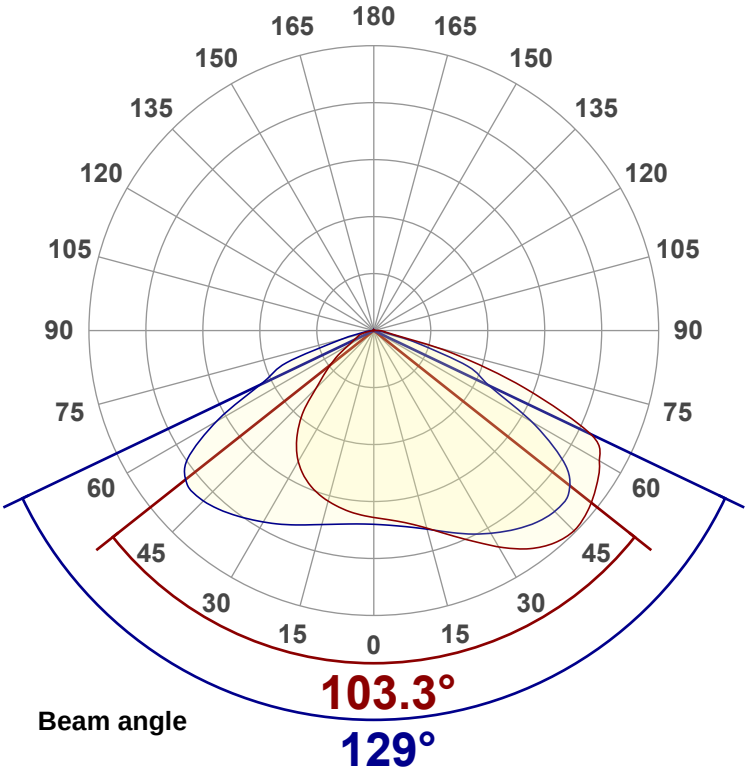
CRI: 70.5

Color temperature:

5004 K

Output: 55001 lm
Peak: 20977 cd

Power: 313.8 W
PF: 1.0



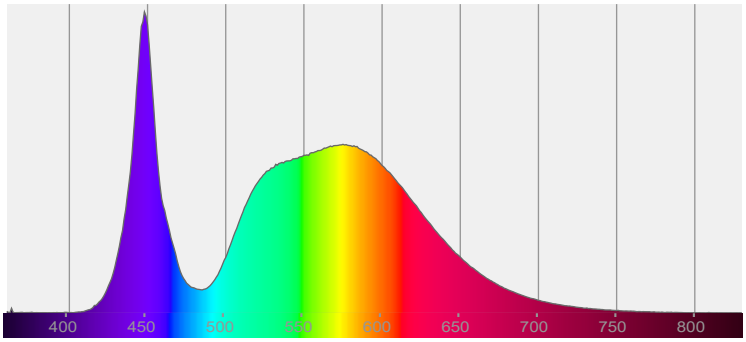
Beam angle

Product name:
ALD2-50K30W-C-BRC3

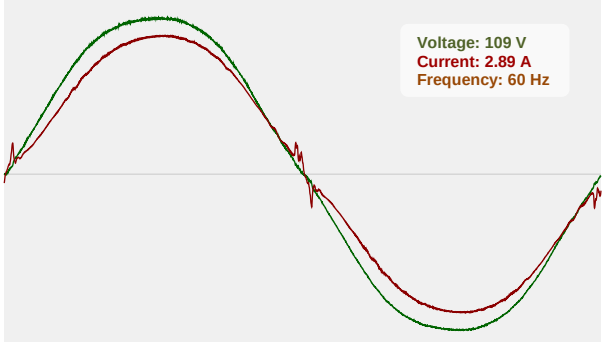
Date and time:
7/17/2023 11:37:40 AM

CIE 1931
x: 0.346
y: 0.360

Spectra



Power



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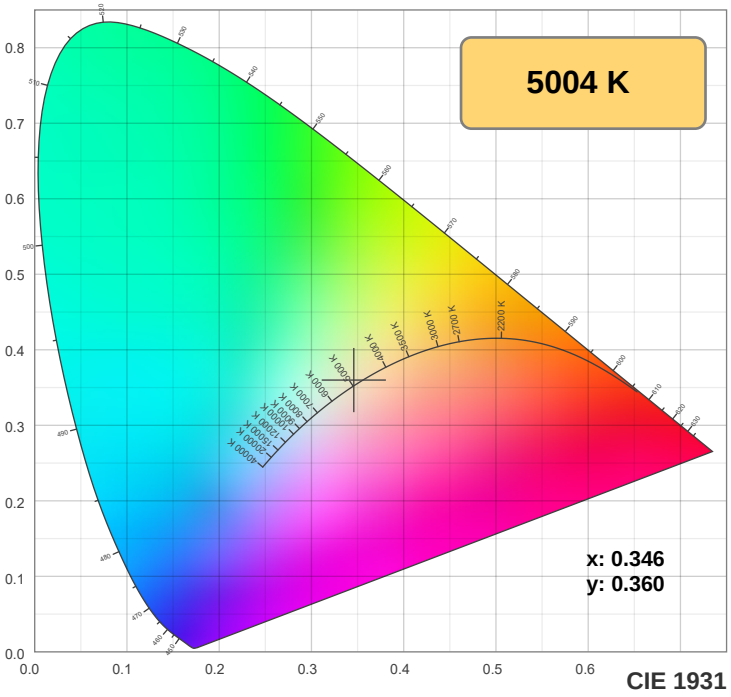
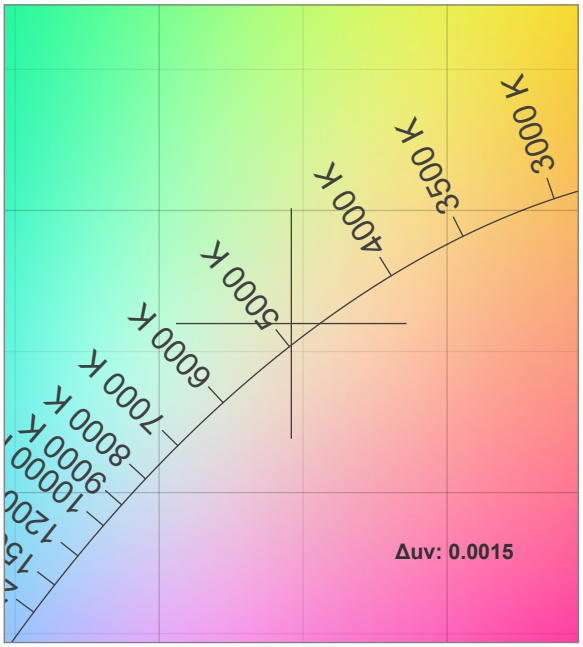
Color Specifications

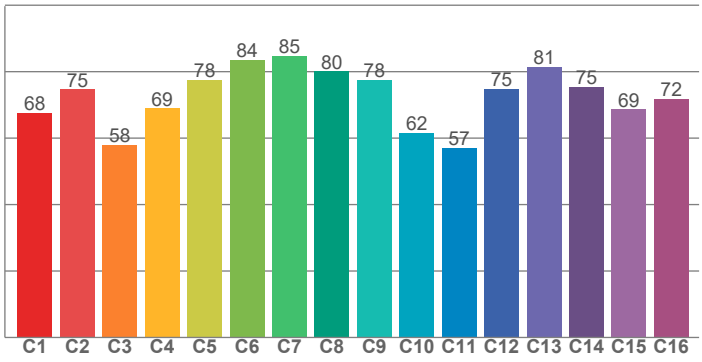


CIE 1931

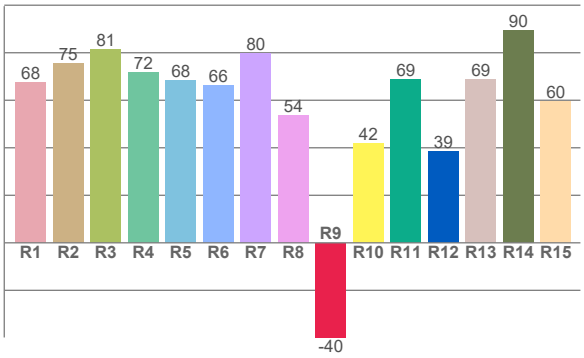


CIE 1931 ZOOM

TM30: 72.0



CRI: 70.5 (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
67.6	75.4	81.4	71.6	68.3	66.4	79.8	53.7	-39.8	41.9	68.8	38.6	68.7	89.6	59.7

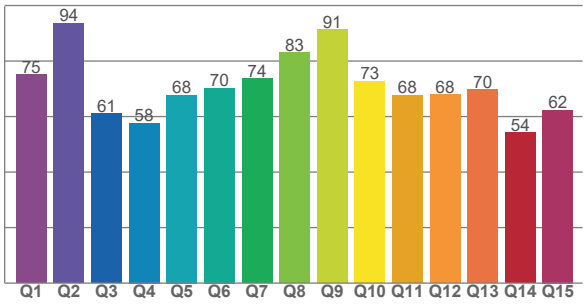
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
67.6	74.7	58.0	69.0	77.5	83.5	84.7	80.1	77.6	61.7	57.1	74.8	81.4	75.4	68.6	71.8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
75.2	93.6	61.1	57.7	67.8	70.3	73.6	82.9	91.2	72.7	67.7	67.9	69.6	54.2	62.3

CQS: 69.2



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
5004 K	70.5	-39.8	72.0	94.6	69.2	0.346	0.360	0.209	0.326	0.0015

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TM30 Report

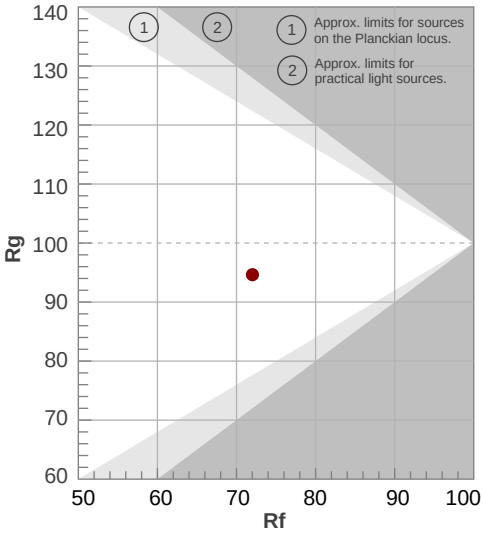
Rf 72.0

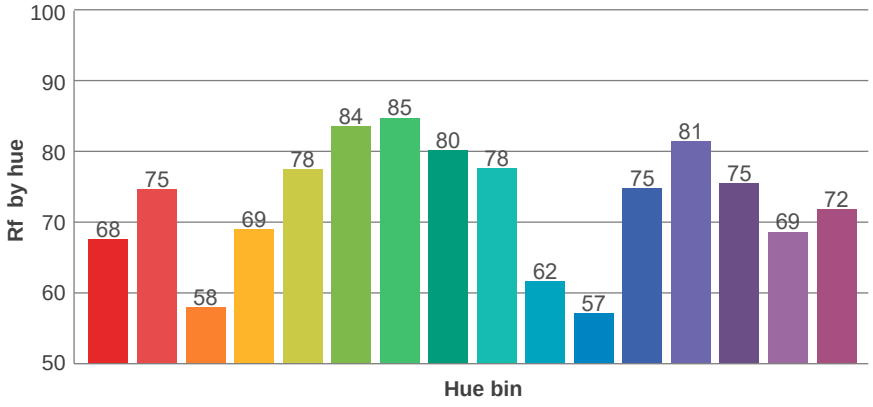
Fidelity index Rf

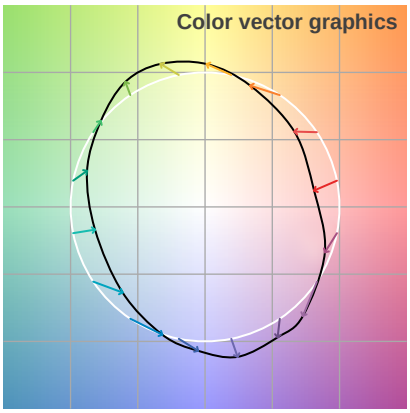
Rg 94.6

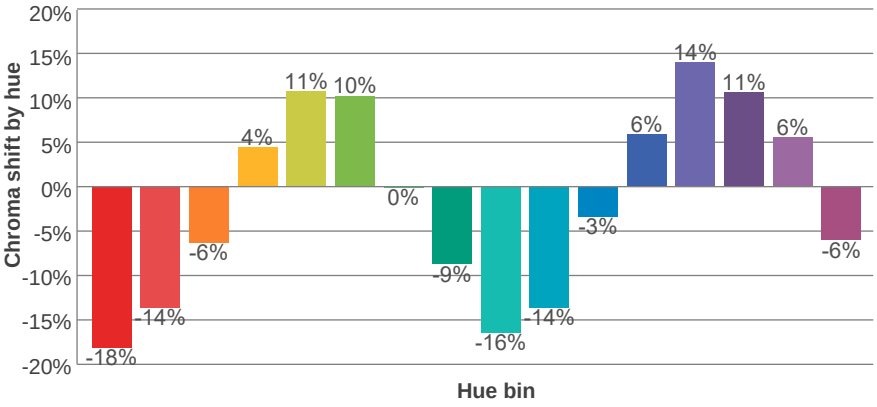
Gamut index Rg

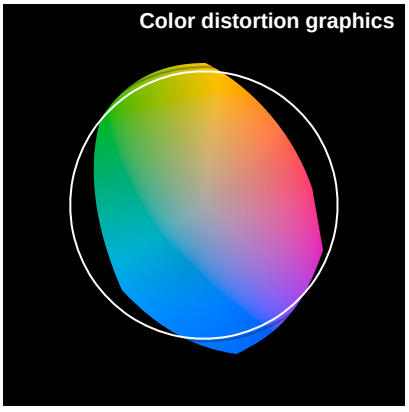
Hue Bin	R_f	Graphic shifts (%) Chroma	Hue
1	68	-18%	-4%
2	75	-14%	10%
3	58	-6%	22%
4	69	4%	20%
5	78	11%	12%
6	84	10%	-2%
7	85	0%	-10%
8	80	-9%	-9%
9	78	-16%	1%
10	62	-14%	19%
11	57	-3%	26%
12	75	6%	16%
13	81	14%	2%
14	75	11%	-9%
15	69	6%	-27%
16	72	-6%	-16%

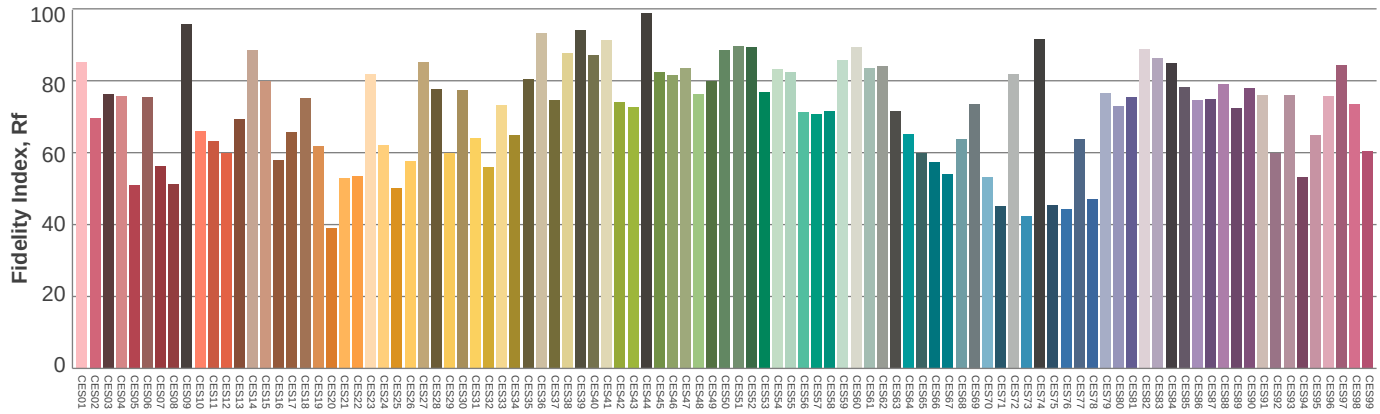












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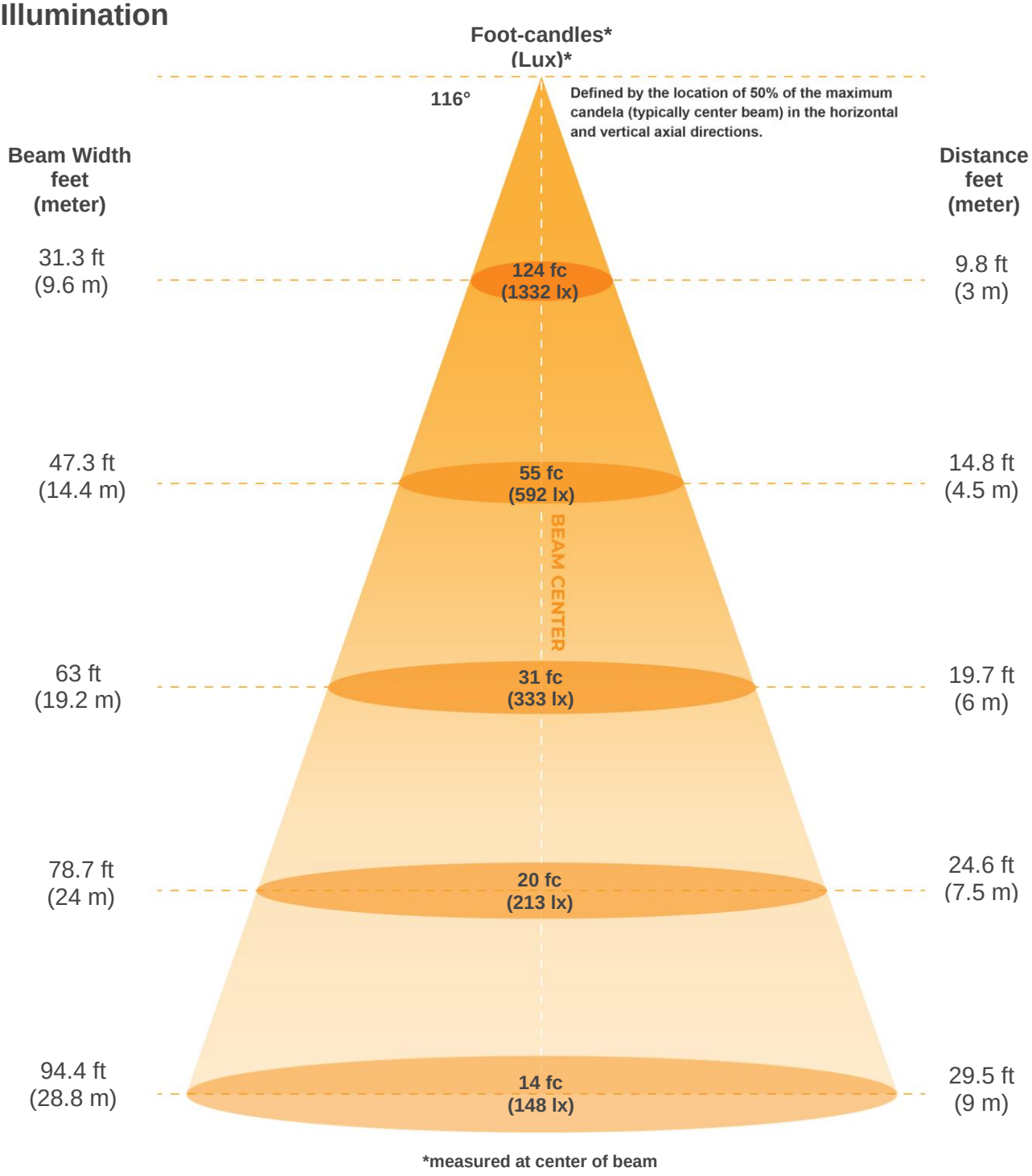
Illumination



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	11988	2997	1332	749	480	333	245	187	148	120	99	83	71	61	53	47	41	37	33	30
fc	1113.7	278.4	123.7	69.6	44.5	30.9	22.7	17.4	13.7	11.1	9.2	7.7	6.6	5.7	4.9	4.4	3.9	3.4	3.1	2.8

Beam angle H	Beam Angle V	Field angle H 10%	Field Angle V 10%	Cutoff Angle 2.5%	Intensity Ratio in 120°	Intensity Ratio in 90°
129°	103.3°	153.6°	138.2°	168°	74.6%	44.4%

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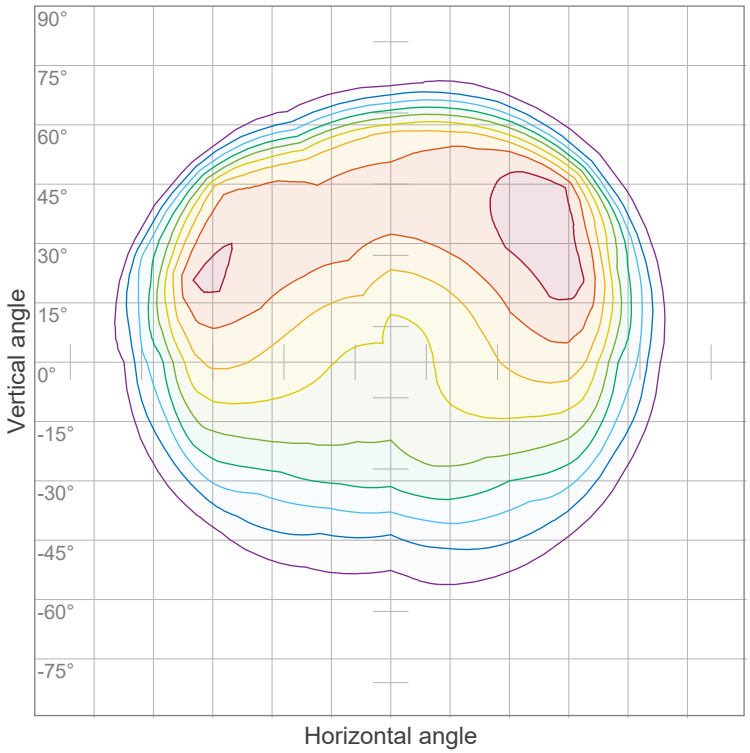
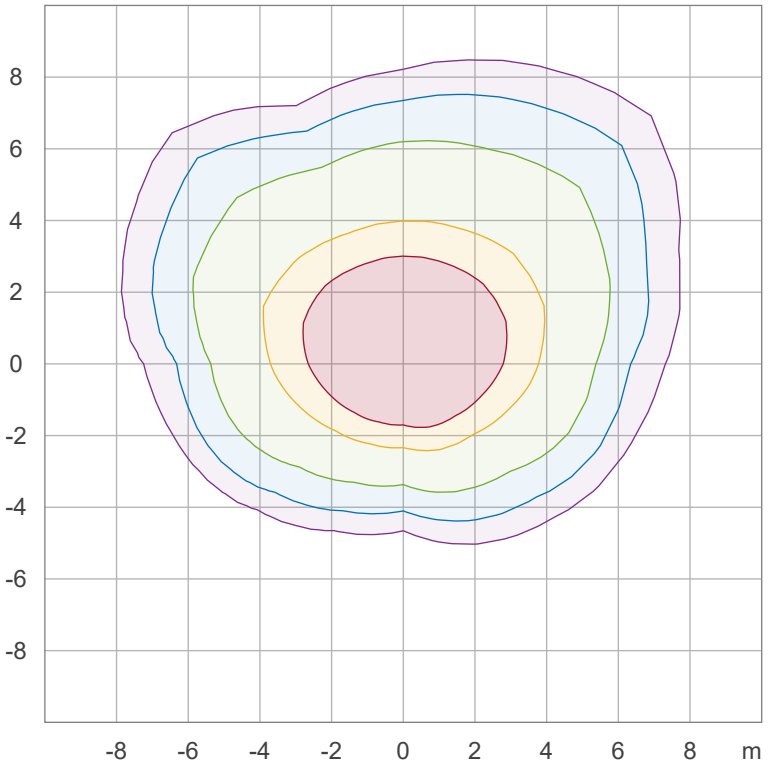
Iso-intensity Diagram (Iso-candela)



90 %	18860.0 cd
80 %	16764.5 cd
70 %	14668.9 cd
60 %	12573.3 cd
50 %	10477.8 cd
40 %	8382.2 cd
30 %	6286.7 cd
20 %	4191.1 cd
10 %	2095.6 cd

Peak intensity: 20955.6 cd
Number of c-planes: 16

Iso-illuminance Diagram (Iso-lux)



50.0 %	691.0 lx
30.0 %	414.6 lx
10.0 %	138.2 lx
5.0 %	69.1 lx
3.0 %	41.5 lx

Peak illuminance: 1382.0 lx
Mounting height: 3.0 m
Number of c-planes: 16

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Outdoor Light Planning

Lumen per Zone

Zone (γ)	Lumen	% Total
0-10°	1153 lm	2.1%
10-20°	3544 lm	6.4%
20-30°	6097 lm	11.1%
30-40°	8596 lm	15.6%
40-50°	10440 lm	19.0%
50-60°	11180 lm	20.3%
60-70°	9190 lm	16.7%
70-80°	3969 lm	7.2%
80-90°	586 lm	1.1%
90-100°	69 lm	0.1%
100-110°	24 lm	0.0%
110-120°	29 lm	0.1%
120-130°	30 lm	0.1%
130-140°	29 lm	0.1%
140-150°	26 lm	0.0%
150-160°	20 lm	0.0%
160-170°	13 lm	0.0%
170-180°	4 lm	0.0%
Total	55001 lm	100.0%

Intensity peaks

Max intensity	20977 cd
Intensity, 90°	349 cd
Intensity, 0°	11988 cd

Zonal Lumen summary

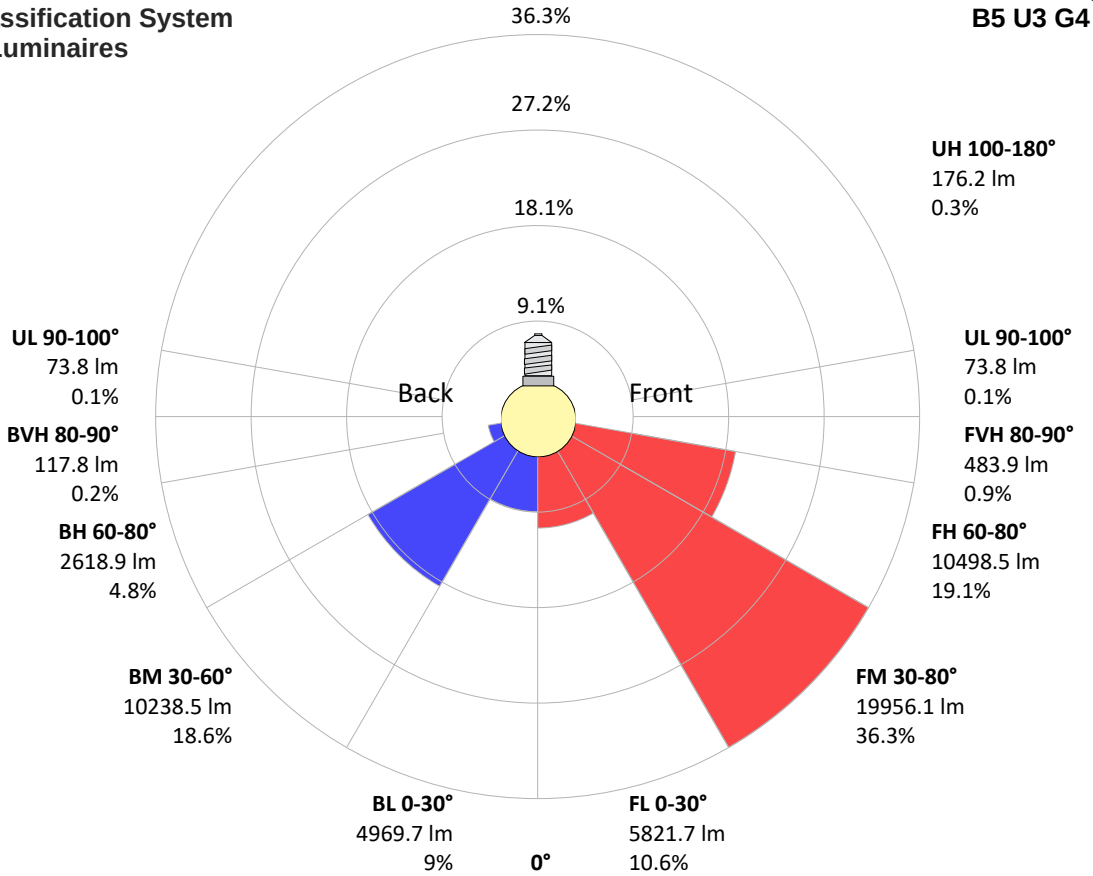
Zone (γ)	Lumen	% Total
0-30°	10794 lm	19.6%
0-40°	19390 lm	35.3%
0-60°	41011 lm	74.6%
60-90°	13746 lm	25.0%
70-100°	4624 lm	8.4%
90-120°	122 lm	0.2%
0-90°	54757 lm	99.6%
90-180°	245 lm	0.4%
0-180°	55001 lm	100.0%

BUG rating

	Lumen	% Total
Forward light		
Low(0-30°)	5822 lm	10.6%
Medium(30-60°)	19956 lm	36.3%
High(60-80°)	10498 lm	19.1%
Very high(80-90°)	484 lm	0.9%
Back light		
Low(0-30°)	4970 lm	9.0%
Medium(30-60°)	10238 lm	18.6%
High(60-80°)	2619 lm	4.8%
Very high(80-90°)	118 lm	0.2%
Uplight		
Low(90-100°)	74 lm	0.1%
High(100-180°)	176 lm	0.3%

IESNA TM-15-07
Luminaire Classification System
For Outdoor Luminaires

BUG rating
B5 U3 G4



UGR data could not be calculated due to missing dimensions. Goto Edit->Photometric->Dimensions and set the fixture/lamp dimensions.

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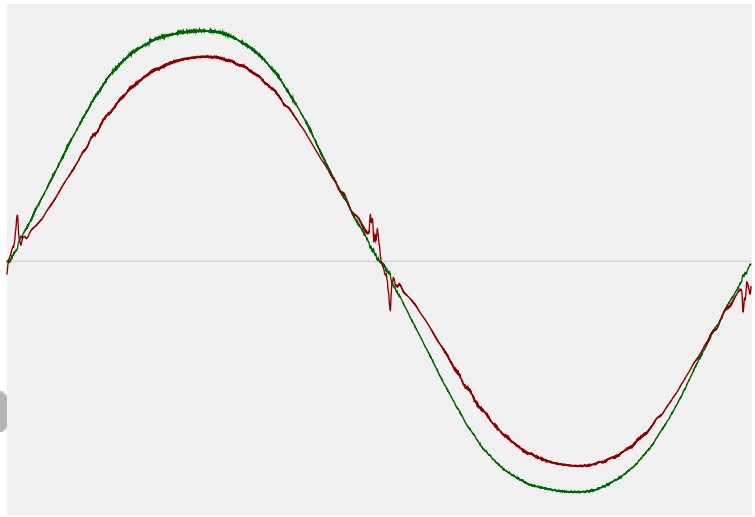
Power Details

Input Power

Power feed to light source	313.8 W
Frequency of input power	60 Hz
RMS Input voltage feed, V_{RMS}	109 V
RMS Input current feed, I_{RMS}	2.89 A
Volt-Ampere or apparent power = V_{RMS}*I_{RMS}	314.56 VA
Displacement factor of AC power feed	1.0
Power factor of AC current feed	1.0
Total harmonic distortion of the current	3.62%
Total harmonic distortion of the voltage	2.52%

Input Power Curve



Efficiency

Radiated power efficiency 50.5%

Lumen efficiency 175 lm/W

Stabilization Details

Warmup Conditions

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

Color Temperature Change

CCT start	5004 K
CCT shift	+1 K
CCT end	5004 K

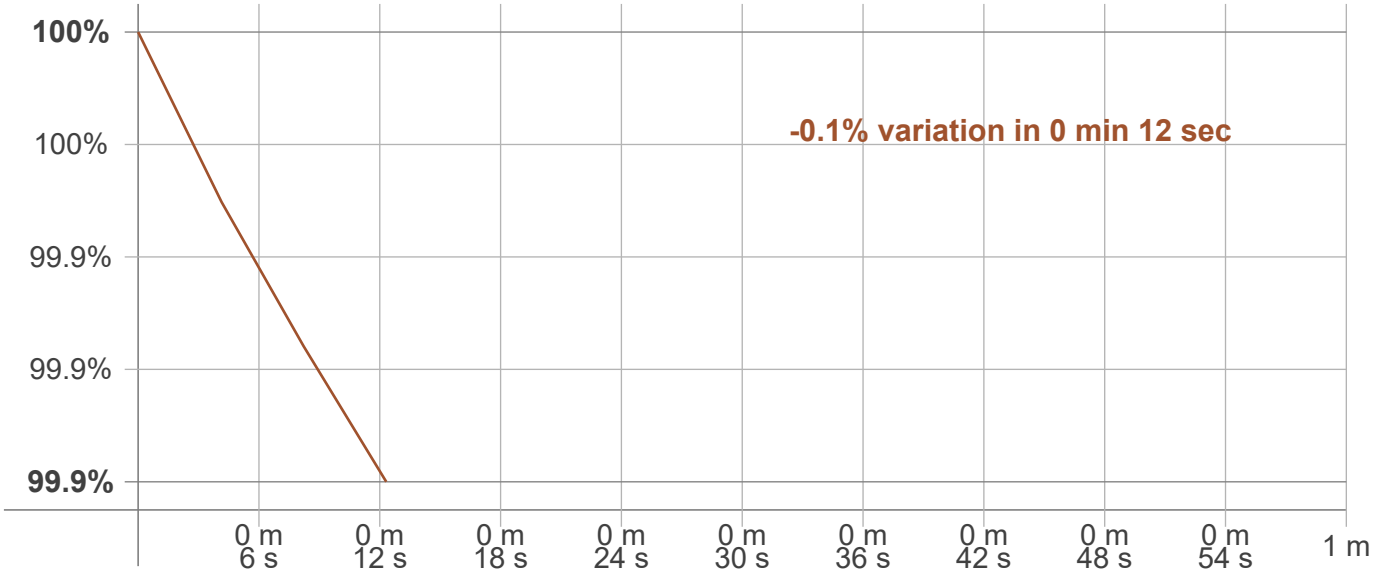
Warmup Result

Total warmup time	Not completed
Warmup variation	-0.1%

Output Change

Output start	55048 lm
Output change	-47 lm
Output end	55001 lm

Stabilization Curve



Flicker /TLA details

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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	113.64 Hz
Percent Flicker	0.06 %
Flicker index	0

Flicker indices per California Energy Commission (CEC) 2016b

JA8/10 40 Hz	0.01 %
JA8/10 90 Hz	0.01 %
JA8/10 200 Hz	0.05 %
JA8/10 400 Hz	0.05 %
JA8/10 1000 Hz	0.06 %

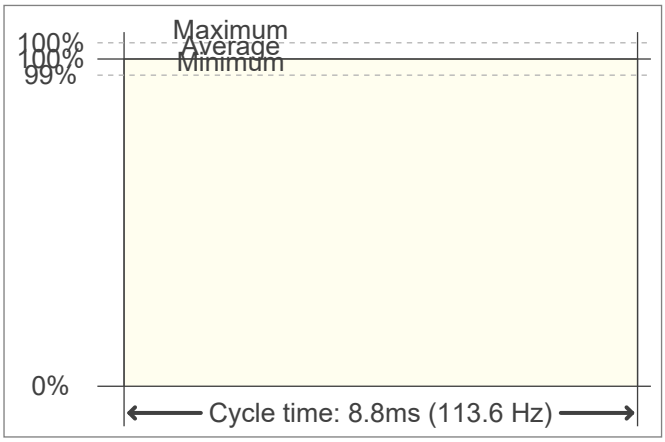
TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC 61000-4-15)

PstLM value (F < 80 Hz)	0
SVM value (80 < F < 2000 Hz)	0

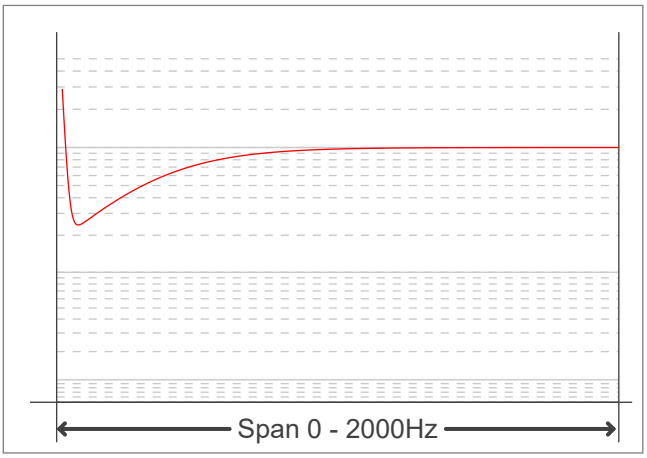
Flicker indices according to Lighting Research Center (2015)

Perception metric, Assist Mp	0

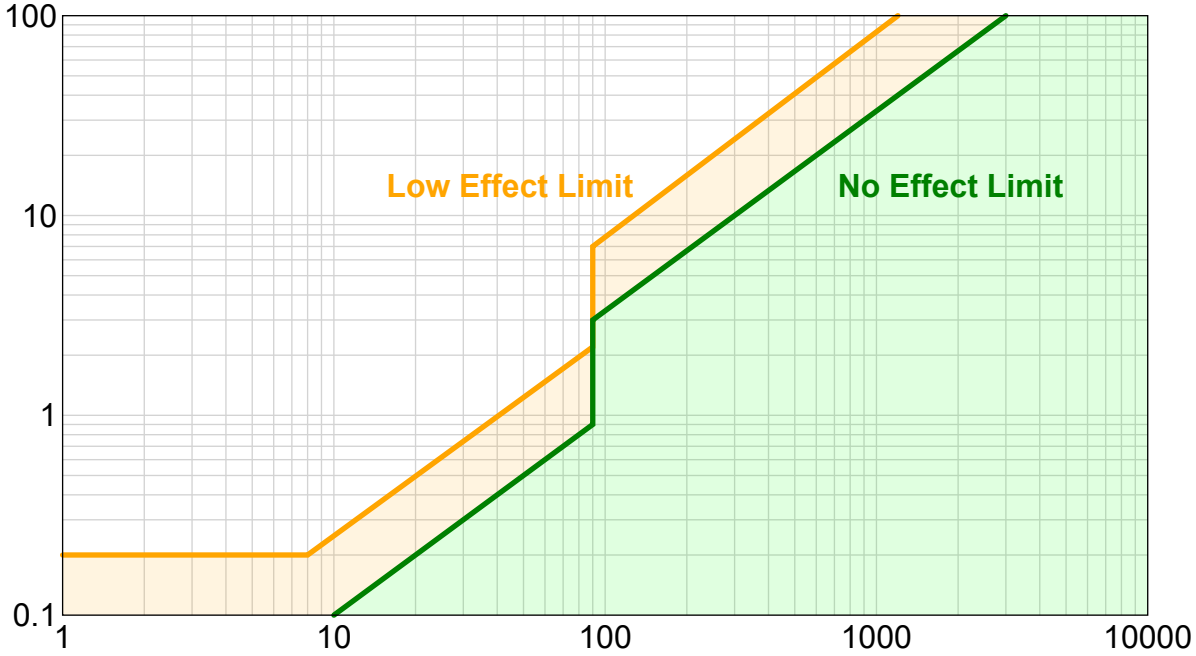
Flicker frame (frame of one flicker period in time domain)



Flicker FFT (flicker curve in frequency domain)



IEEE 1789 Frequency/modulation plot



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