

Photometric Data Sheet

Laboratory and Equipment

Test Lab
Spectrometer Manufacturer and Model
Measurement Date

Industrial Commercial Lighting - St. Louis, Missouri
LabSpion – Type C, horizontal
2/25/2026

Measurement Conditions

Tested c-planes
Tested Gamma Resolution
Input Power

16 planes – 22.5°
5°
39.8 W

Tested Light Source

Luminaire
Basic Luminous Shape
Manufacturer
Description

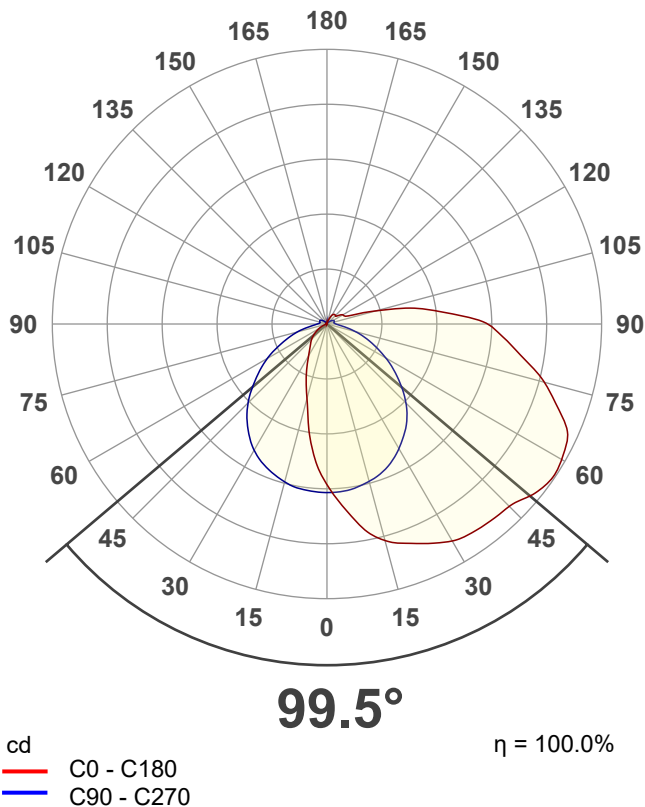
ICWP-50K40P-BABRSP
NONE
Industrial Commercial Lighting
40W LED Wall Pack

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index
TM30
SDCM

6770 lm – 12.93% / 87.07%
170 lm/W
2506 cd
5228 K
CRI 82.7
82.3
4.5

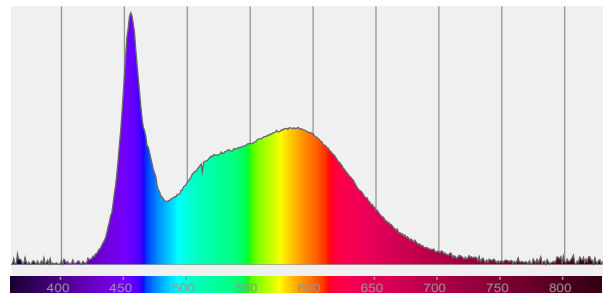
Polar Light Distribution Diagram



Product Photo

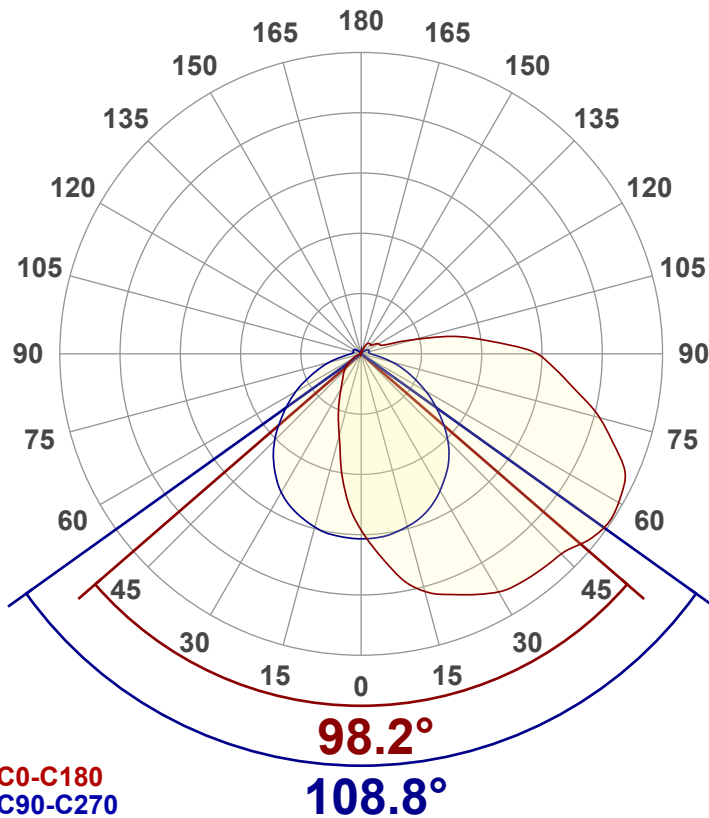


Spectral Power Distribution



Luminous Intensity Diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	6770 lm
Lumen Up% / Down%	12.93% / 87.07%
Peak Intensity	2506 cd
Beam Angle (50%-FWHM)	99.48°
Beam Angle - Horizontal	108.8°
Beam Angle - Vertical	98.2°

Cut-off Angle

Average 2.5%	235.9°
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Field Angle

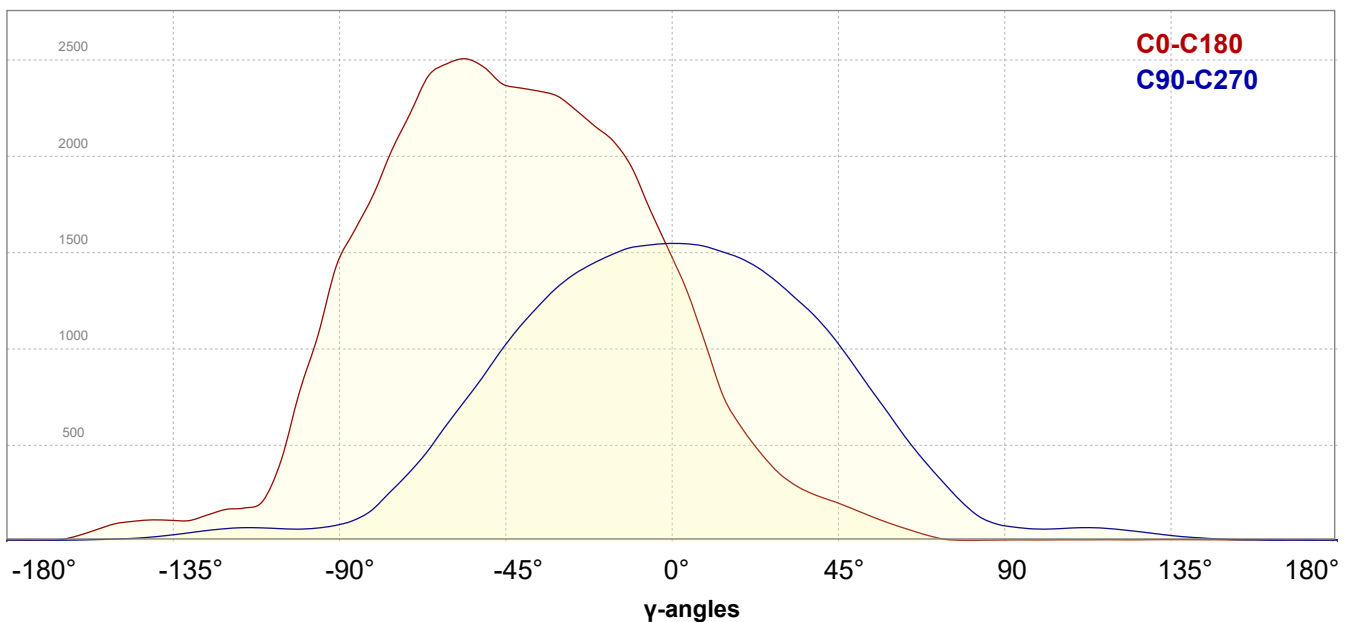
Average 10%	166.4°
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Intensity Ratio

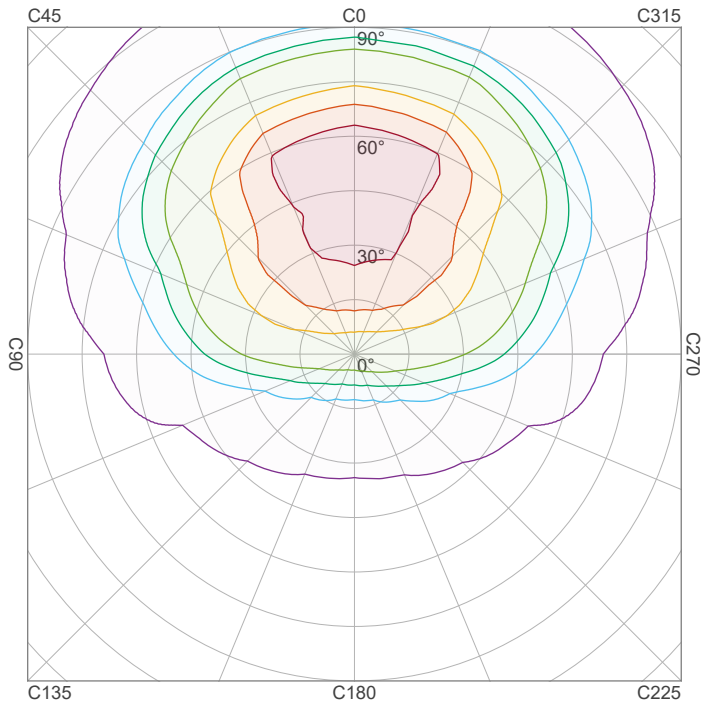
In 120° cone	54.7%
In 90° cone	34.9%

Linear Distribution Diagram

Intensity [cd]



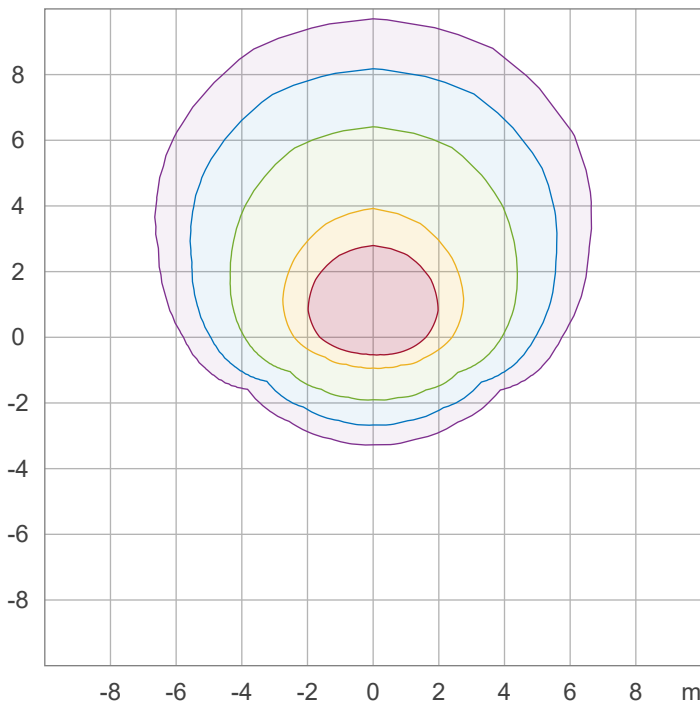
Iso-intensity Diagram (Iso-candela)



90 %	2255.5 cd
80 %	2004.9 cd
70 %	1754.2 cd
60 %	1503.6 cd
50 %	1253.0 cd
40 %	1002.4 cd
30 %	751.8 cd
20 %	501.2 cd
10 %	250.6 cd

Peak intensity: 2506.1 cd
 Number of c-planes: 16

Iso-illuminance Diagram (Iso-lux)



50.0 %	102.8 lx
30.0 %	61.7 lx
10.0 %	20.6 lx
5.0 %	10.3 lx
3.0 %	6.2 lx

Peak illuminance: 205.6 lx
 Mounting height: 3.0 m
 Number of c-planes: 16



Photometric Data Sheet

Color Details

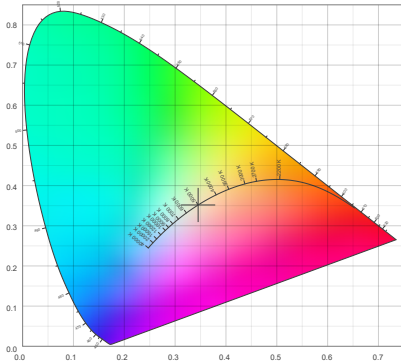
Correlated Color Temperature, Measured
 Color Rendering Index
 Color Rendering Index, R9 (red)
 Color Rendering TM30-18

CCT = 5228 K
 CRI 82.7
 R9 = 0.2
 Rf 82.3
 Rg 92.1

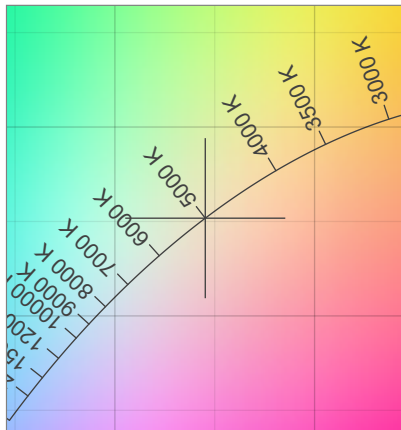
Color deviation from BBL
 Color coordinates CIE 1931
 Color coordinate CIEs 1960
 Color coordinate CIEs 1976
 Color Quality Scale

Duv = 0.0027
 (x;y) = (0.345;0.352)
 (u;v) = (0.211;0.323)
 (u';v') = (0.211;0.485)
 CQS = 79.7

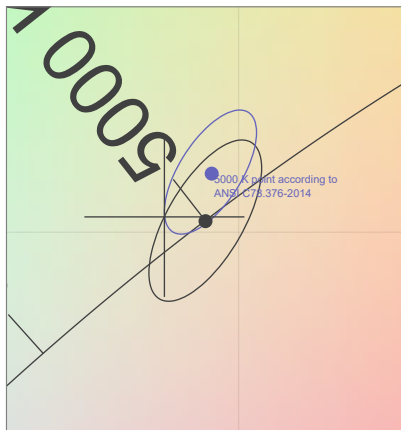
CIE 1931 Chromaticity Diagram



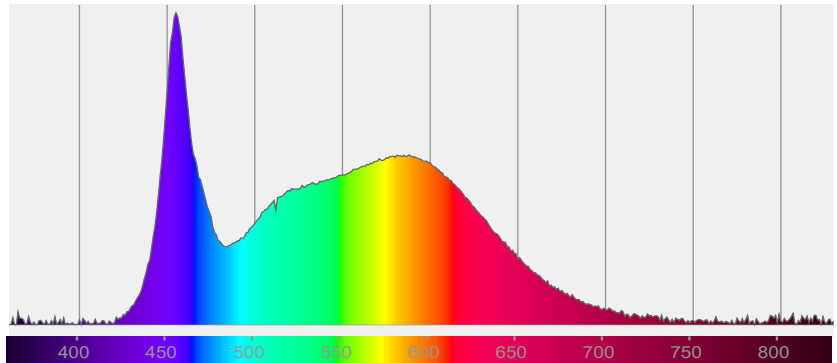
CIE 1931 Chromaticity - Zoomed



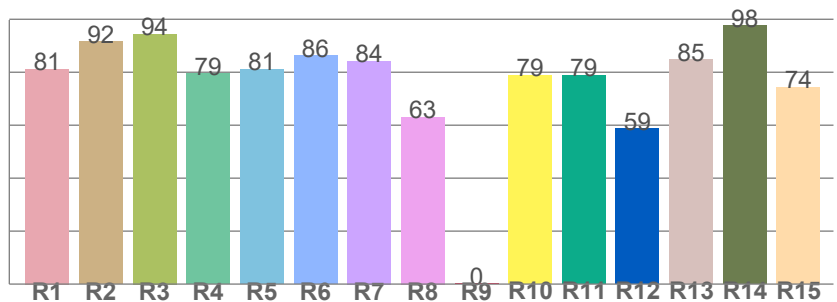
CIE 1931 Chromaticity - SDCM



Spectral Power Distribution



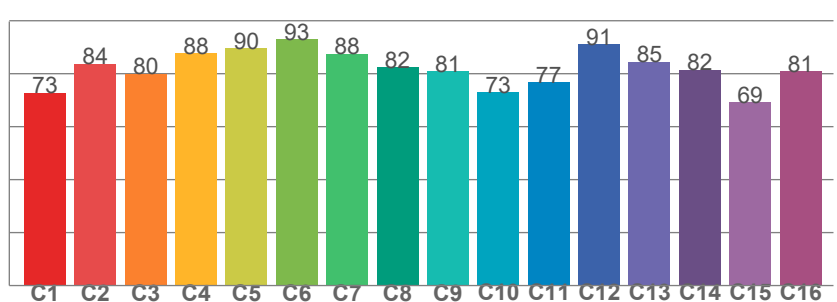
Color Rendering Index per Reference Color (CIE 1995)



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
81.3	91.5	94.5	79.4	81.1	86.3	84.2	63.1	0.2	78.9	78.8	58.8	84.8	97.7	74.4

TM30-18 Rf-values per Hue Bin



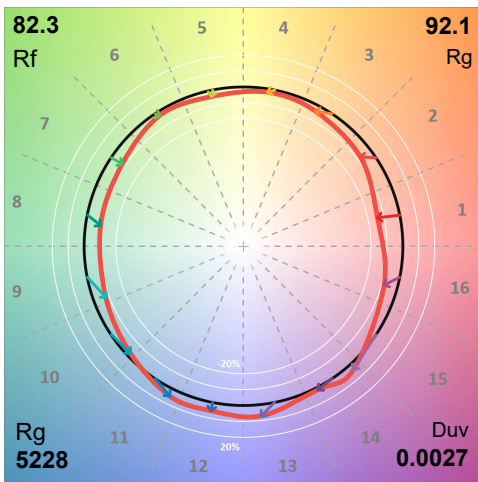
TM30-18 Rf-values per hue bin

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
72.8	83.7	80.0	87.8	89.6	93.0	87.6	82.4	80.9	72.9	76.8	91.1	84.6	81.5	69.3	81.0

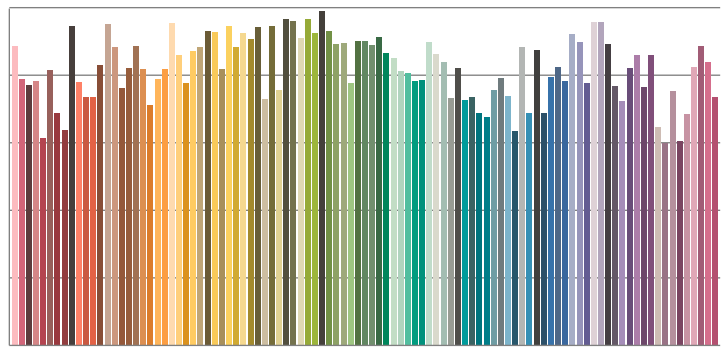


Color details - ANSI/IES TM-30-18 Color Rendition Report

Color Vector Graphic



Color Rendition by Color Evaluation Sample (CES)

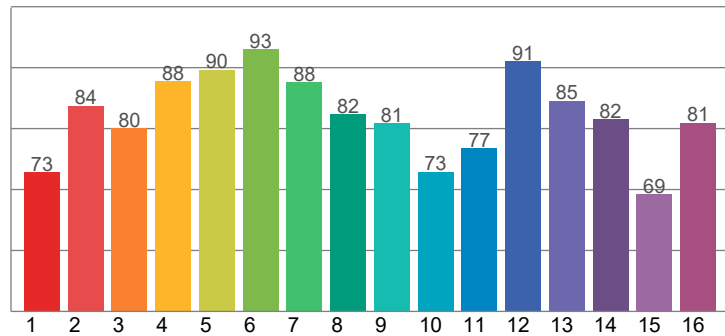


Color evaluation sample CES01 through CES99

Color Distortion Graphic

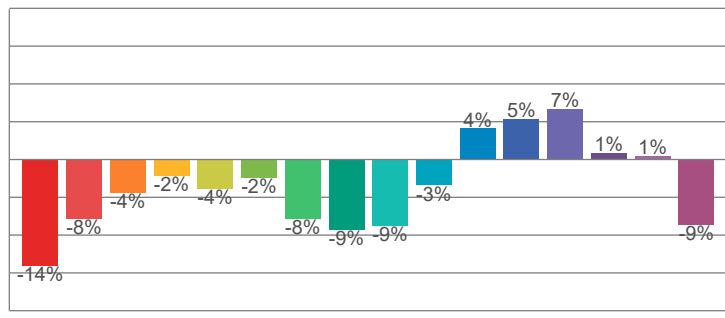


Local Color Fidelity (per hue bin)



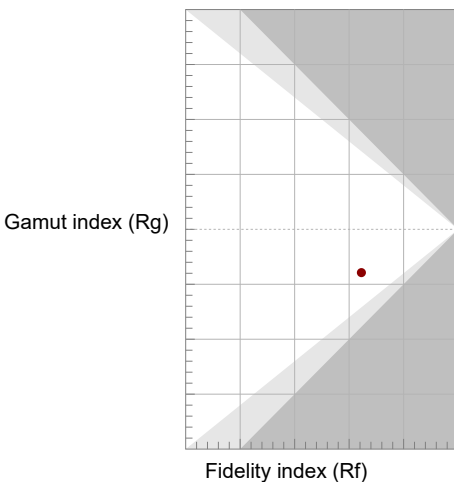
Hue angle bin (j)

Local Chroma Shift (per hue bin)



Hue angle bin (j)

Gamut Index vs. Fidelity Index

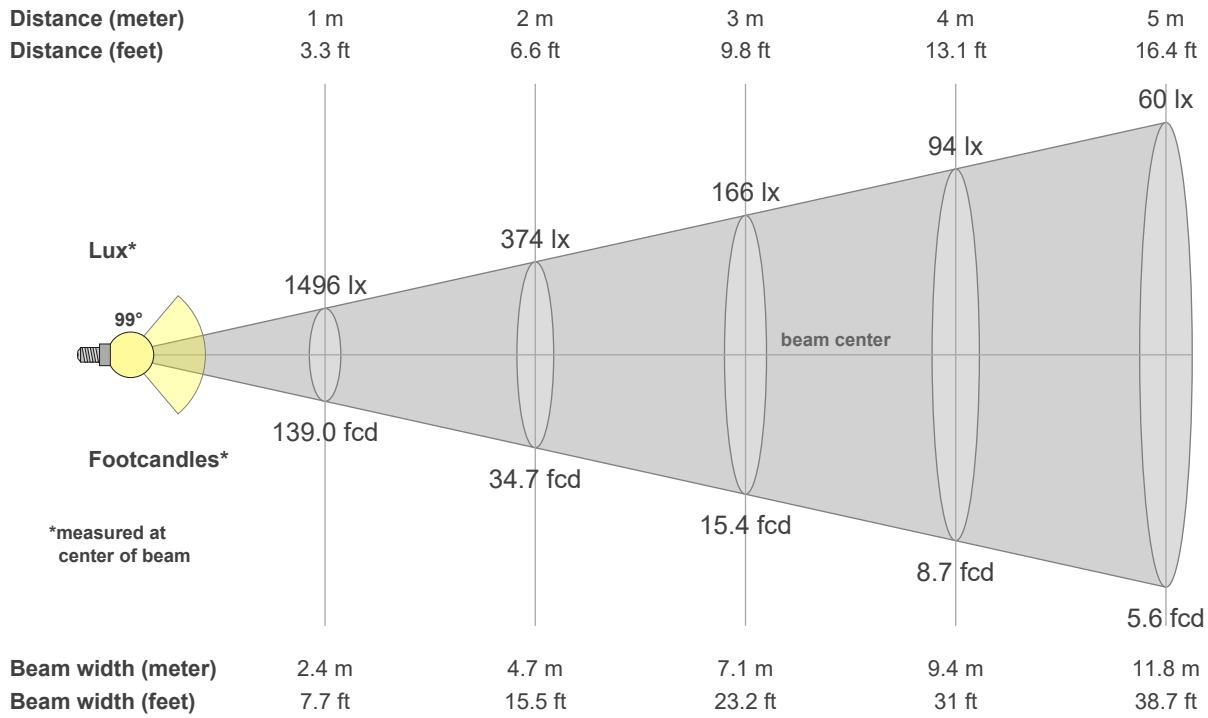


x 0.345
y 0.345
u' 0.211
v' 0.485

CIE	13.3-1995
Ra	82.7
R9	0.2



Beam Details



Intensity Details

Beam intensities from 1 – 20 m

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	m
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	ft
1496	374	166	94	60	42	31	23	18	15	12	10	9	8	7	6	5	5	4	4	lux
139	34.7	15.4	8.7	5.6	3.9	2.8	2.2	1.7	1.4	1.1	1	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.3	fc



Photometric Data Sheet

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
1496	1682	1900	2053	2142	2223	2298	2333	2351	2372	2447	2498	2485	2430	2257	2064	1840	1649	1464	1131	cd
100%	112%	127%	137%	143%	149%	154%	156%	157%	159%	164%	167%	166%	162%	151%	138%	123%	110%	98%	76%	of 0°val

Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
1496	1543	1525	1495	1455	1396	1320	1235	1140	1024	893	758	625	496	380	274	180	114	84	71	cd
100%	103%	102%	100%	97%	93%	88%	83%	76%	68%	60%	51%	42%	33%	25%	18%	12%	8%	6%	5%	of 0°val

Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
1496	1246	971	715	560	437	340	276	233	199	161	123	88	56	29	11	7	7	8	9	cd
100%	83%	65%	48%	37%	29%	23%	18%	16%	13%	11%	8%	6%	4%	2%	1%	0%	0%	1%	1%	of 0°val

Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
1496	1541	1529	1499	1456	1404	1336	1245	1141	1023	889	758	632	501	384	283	188	123	90	73	cd
100%	103%	102%	100%	97%	94%	89%	83%	76%	68%	59%	51%	42%	33%	26%	19%	13%	8%	6%	5%	of 0°val



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

IES Classification (Type I, II, III, IV, V) Type IV
 Longitudinal Classification (Short, Medium, Long) Very Short
 Cutoff Classification Non-Cutoff

Forward Light

Low (0-30°)	791	lm	11.7%
Medium (30-60°)	2118.9	lm	31.3%
High (60-80°)	1491.2	lm	22%
Very High (80-90°)	544.7	lm	8%

Back Light

Low (0-30°)	368.9	lm	5.4%
Medium (30-60°)	426.8	lm	6.3%
High (60-80°)	126.3	lm	1.9%
Very High (80-90°)	25.9	lm	0.4%

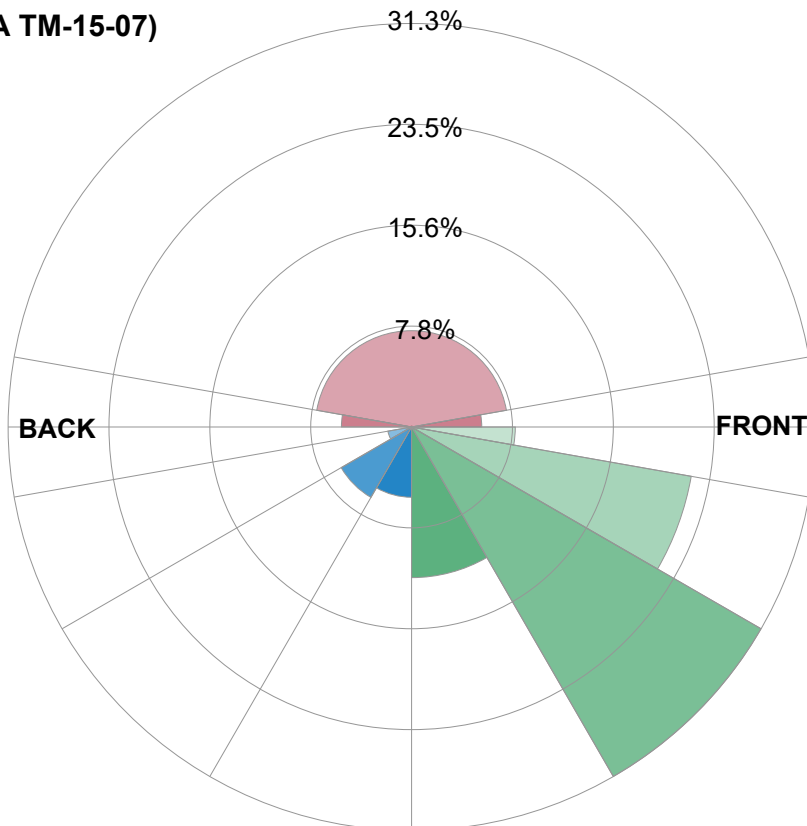
Uplight

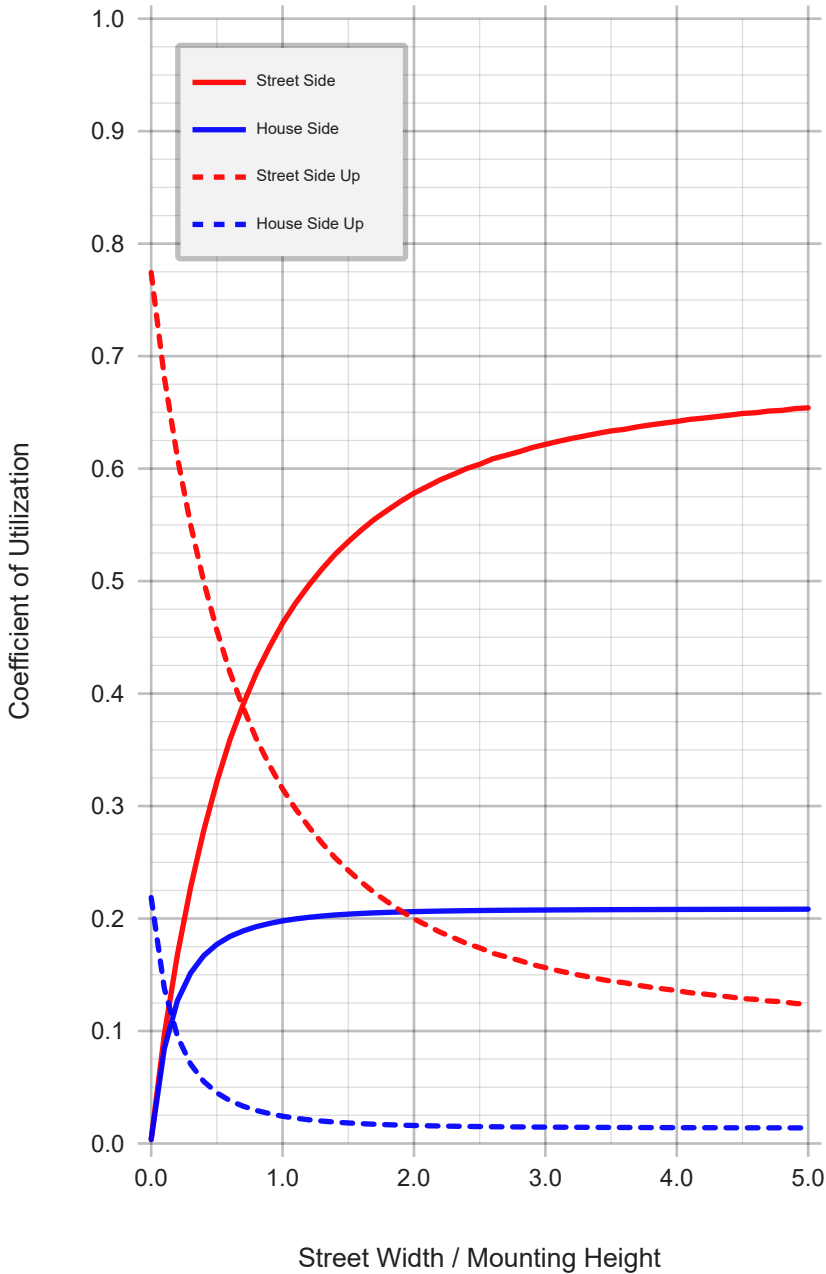
Low (90-100°)	368.5	lm	5.4%
High (100-180°)	505.7	lm	7.5%

Total

Sum 6770.0 lm 100%

BUG Rating (IESNA TM-15-07) B1 U4 G4

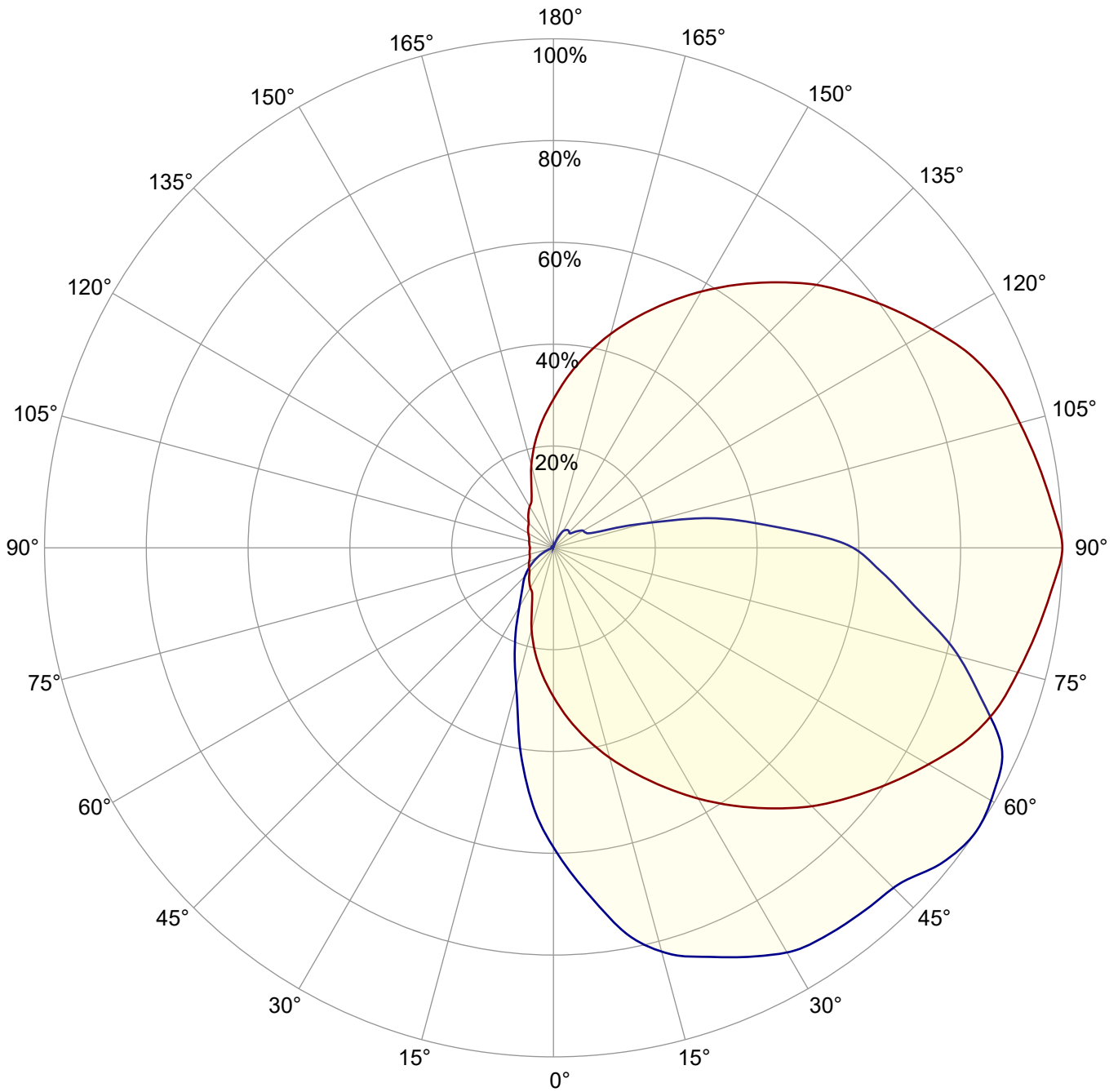




	Flux	Percent of lamp
Downward Street Side	4945.85 lm	73.05%
Downward House Side	948.02 lm	14.00%
Downward Total	5893.87 lm	87.06%
Upward Total	874.22 lm	12.91%
Total Flux	6770.04 lm	100%



Polar Graph - Peak Values



Maximum intensity	2506.4 cd
Max. located at horizontal, vertical angles	0H 55V deg.
Through max.intensity [cd]	Peak plane: C0 - C180
Horizontal cone through vertical angle	55V

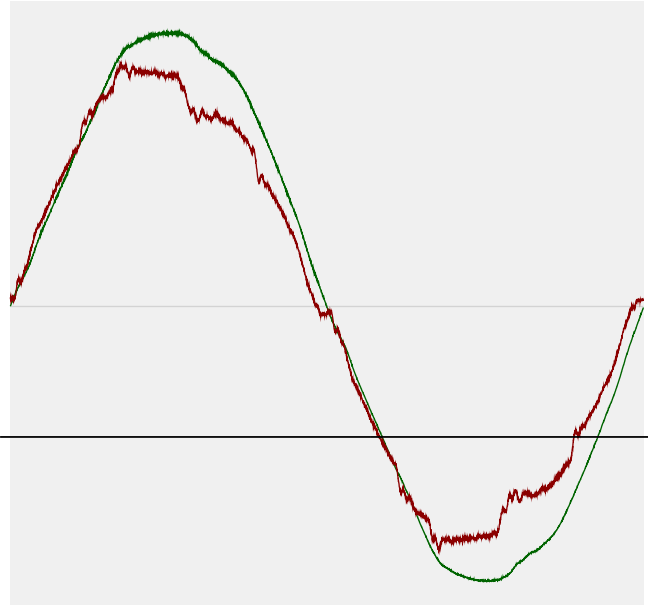


Power Details

Input power

Frequency of input power	60 Hz
Power feed to light source	39.8 W
RMS Input voltage feed V,RMS	121 V
RMS Input current feed I,RMS	0.331 A
Volt-Amp or apparent power = V,RMS*I,RMS	40.15 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.99
Total harmonic distortion of the current	6.73%
Total harmonic distortion of the voltage	2.67%

Input power curve



Efficiency

Radiated power efficiency	52.9%
Lumen efficiency	170 lm/W

Stabilization details

Warmup Conditions

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

Color Temperature Change

CCT start	4958 K
CCT end	5228 K

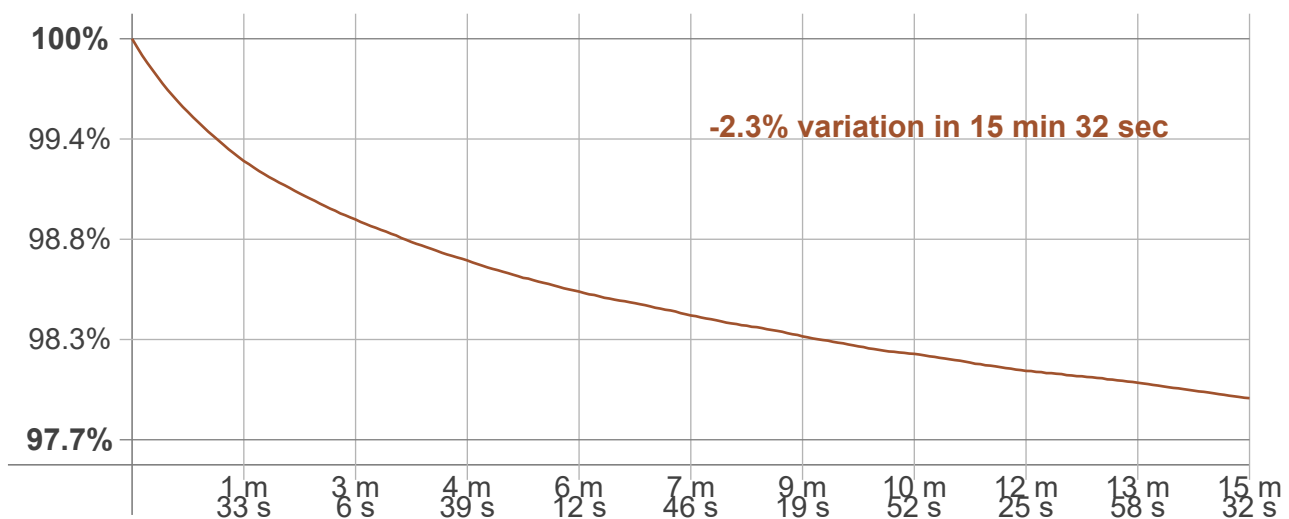
Warmup Result

Total warmup time	Lamp stabilized
Warmup variation	-2.3%

Output Change

Output start	6922 lm
Output change	-152 lm
Output end	6770 lm

Stabilization Curve



Flicker T TLA Details

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	1.5 sec.

Flicker indices according to Illuminating Engineering Society

Flicker frequency	119.76 Hz
Percent Flicker	30.44 %
Flicker index	0.1

Flicker indices according to California Energy Commission (CEC)

JA8/10 40 Hz	0.33 %
JA8/10 90 Hz	1.07 %
JA8/10 200 Hz	30.69 %
JA8/10 400 Hz	30.49 %
JA8/10 1000 Hz	30.46 %

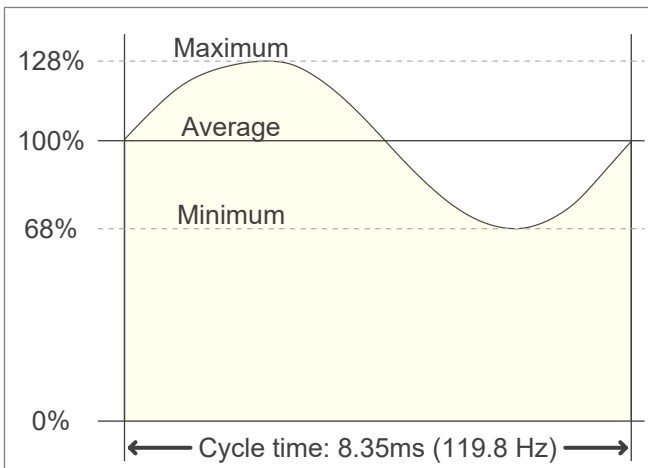
TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC

PstLM value (F < 80 Hz)	0.07
SVM value (80 < F < 2000 Hz)	1.1

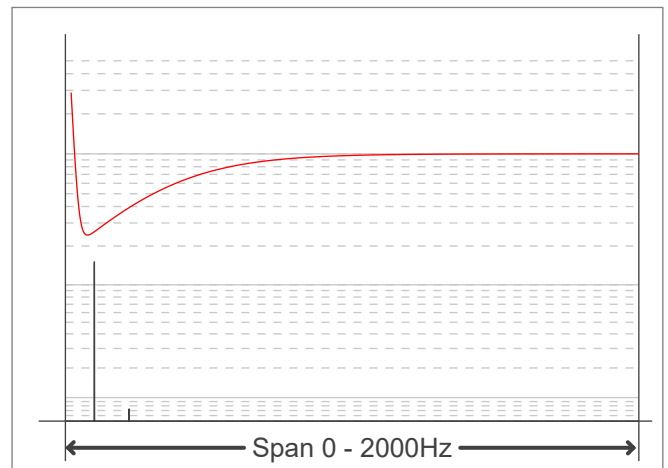
Flicker indices according to Lighting Research Center (2015)

Perception metric, Assist Mp	0.07
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Flicker frame (frame of one flicker period in time domain)



Flicker FFT (flicker curve in frequency domain)



IEEE 1789 Frequency/modulation Plot

