Photometric Test Report

FL50-G2-XXX-3083-4-INF-XXXXX-X

Laboratory and Equipment

Test lab	Viso LabSpion - serial: 2007279764 sensor
Spectrometer Manufacturer and Model	LabSpion – Type C, horizontal
Measurement serial number	PH-GVA-2026.Feb.09-6857-VO
Measurement date	2026-02-09

Measurement Conditions

Tested c-planes	36 planes – 10°
Tested gamma resolution	0.2°
Input Power	52.3 W

Electrical Data

Input Power	52.3 W
Input Voltage	379 V DC
Input Current	0.138 A
Power Factor	1.0

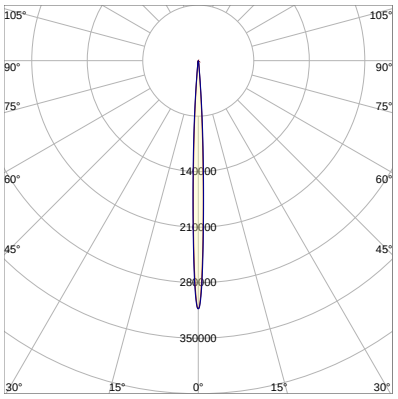
Tested Light Source

Product family	FL50-G2
Luminaire configuration	FL50-G2-XXX-3083-4-INF-XXXXX-X
Manufacturer	GVA Lighting, Inc
Size (width x length x height)	84 mm 0 mm x 250 mm

Main Light Measurement

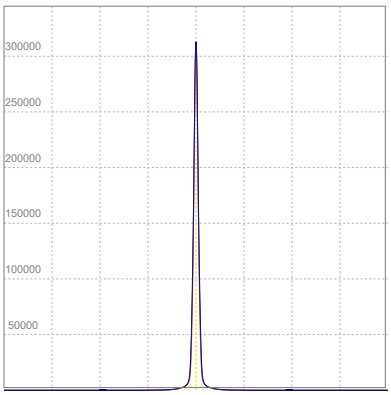
Output – Total Lumen (Up% / Down%)	3800 lm – 0% / 100%
Efficiency	73 lm/W
Peak Intensity	313576 cd
Correlated Color Temperature, CCT	2915 K
Color Rendering Index	CRI 82.3
Beam Angle (FWHM) | C0/180	4.6°
Beam Angle (FWHM) | C90/270	4.8°
Field Angle (10%) | C0/180	9.3°Unit: 0-100% of peak intensity
Field Angle (10%) | C90/270	9.9°
Optical Power	11.5 mW
Peak Wavelength	607 nm
Dominant Wavelength	583 nm

Polar Light Distribution Diagram
Unit: 0-100% of peak intensity

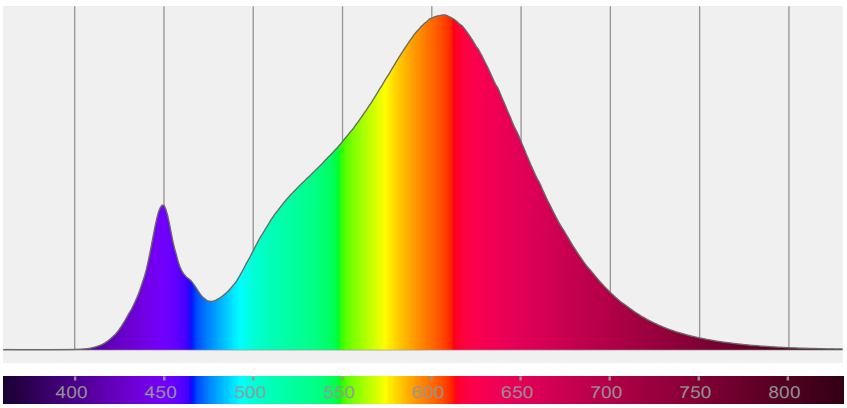


C0 - C180
C90 - C270
η = 100.0%

Linear distribution Diagram



Spectral Distribution



Color Temperature

2915 K

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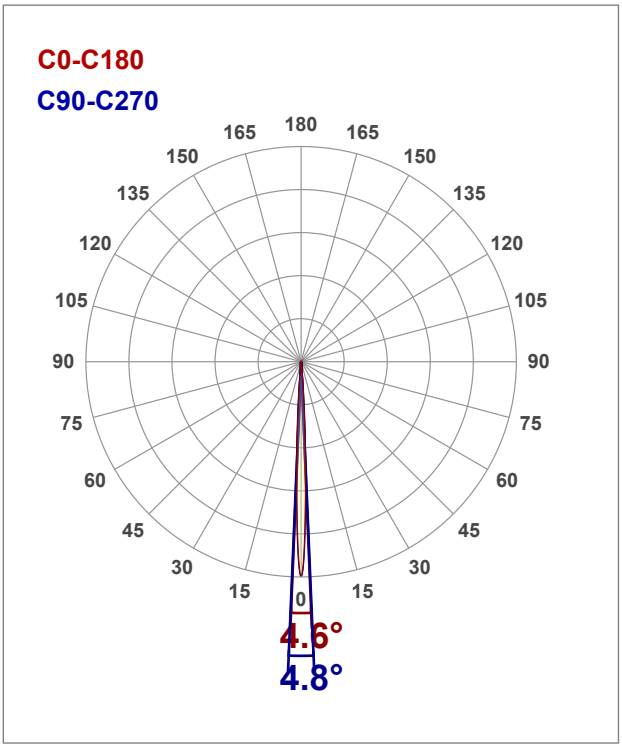
Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	3800 lm
Lumen Up% / Down%	0% / 100%
Peak Intensity	313576 cd
Beam Angle (50%-FWHM)	4.64°

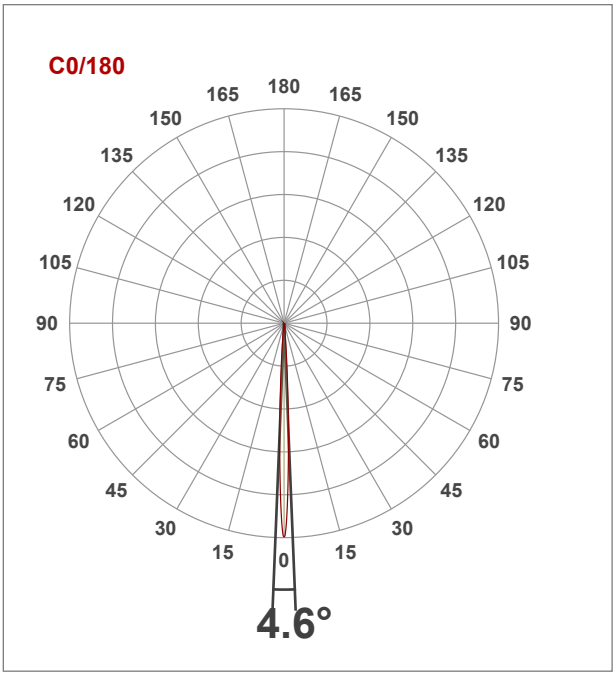
EU Ecodesign parameters

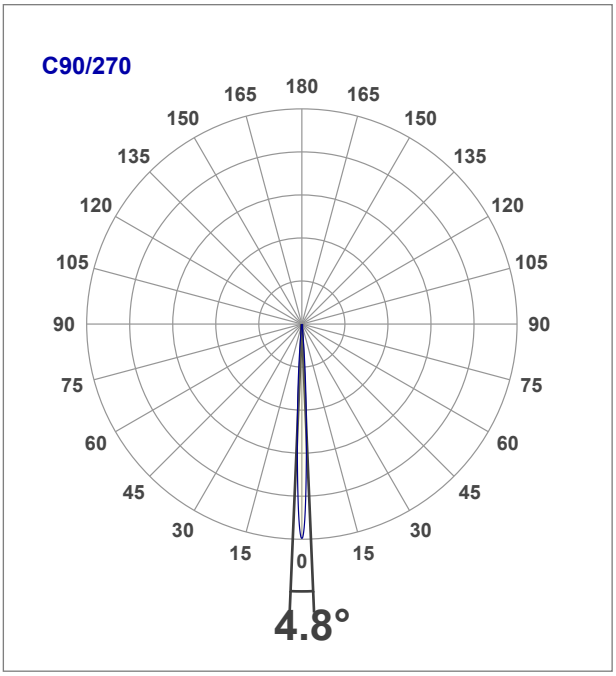
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous	3794 lm
Ecodesign Energy Class	F

Intensity Ratio

In 120° cone	100.0%
In 90° cone	99.8%

Angular Distribution





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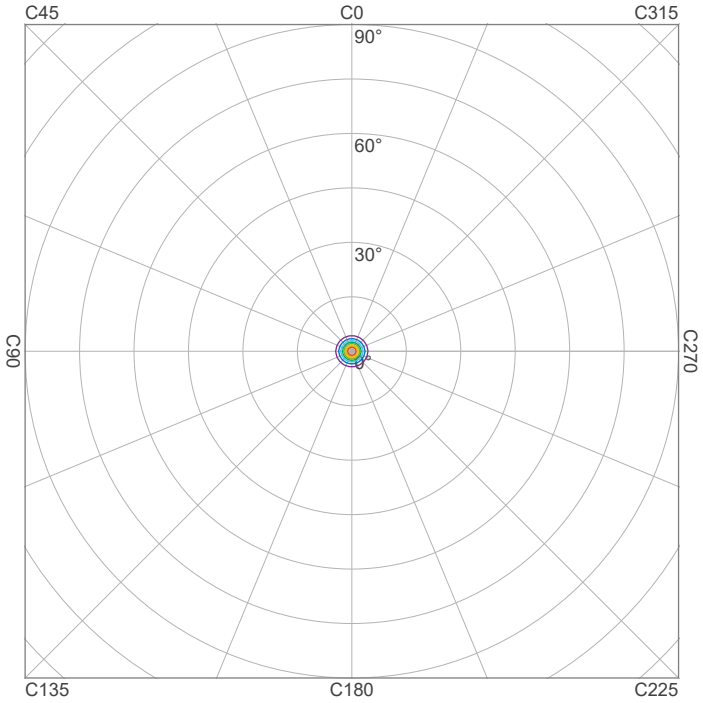
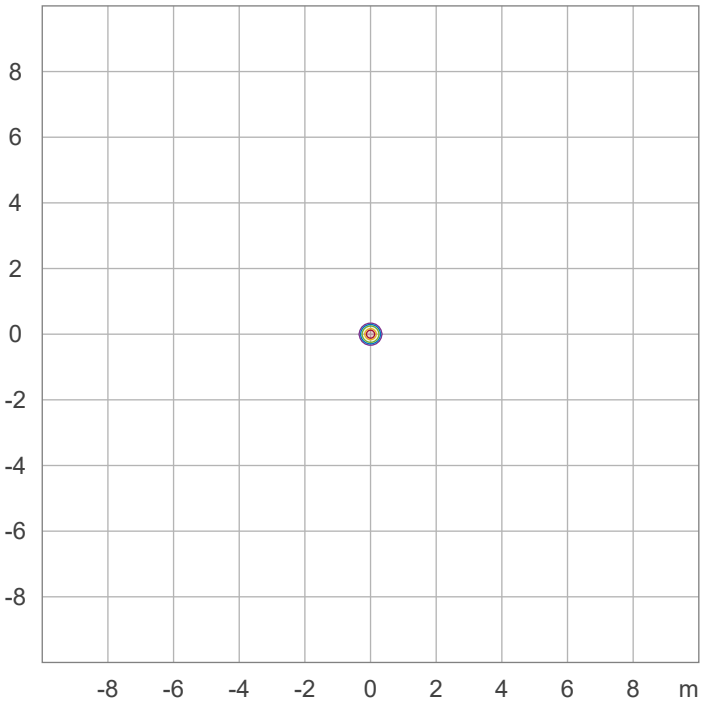
Iso-intensity Diagram (Iso-candela)



90 %	281775.7 cd
80 %	250467.3 cd
70 %	219158.8 cd
60 %	187850.4 cd
50 %	156542.0 cd
40 %	125233.6 cd
30 %	93925.2 cd
20 %	62616.8 cd
10 %	31308.4 cd

Peak intensity: 313084.1 cd
Number of c-planes: 36

Iso-illuminance Diagram (Iso-lux)



50.0 %	17393.6 lx
30.0 %	10436.1 lx
10.0 %	3478.7 lx
5.0 %	1739.4 lx
3.0 %	1043.6 lx

Peak illuminance: 34787.1 lx
Mounting height: 3.0 m
Number of c-planes: 36

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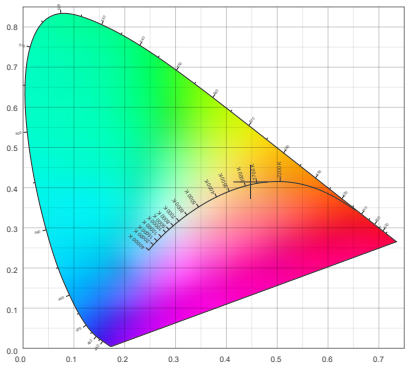
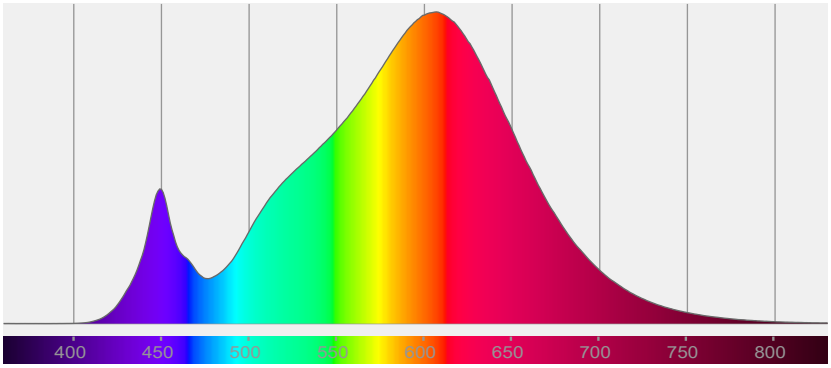
Color details

Correlated Color Temperature, Target	CCT = 2915 K	MacAdam Steps	SDCM = n/a
Correlated Color Temperature, Measured	CCT = 2915 K	Color deviation from BBL	Duv = 0.0026
Color Rendering Index	CRI 82.3	Color coordinates CIE 1931	(x;y) = (0.447;0.414)
Color Rendering Index, R9 (red)	R9 = 8.7	Color coordinate CIEs 1960	(u;v) = (0.253;0.351)
Color Rendering TM30-18	Rf 85.1	Color coordinate CIEs 1976	(u';v') = (0.253;0.527)
	Rg 96.1	Color Quality Scale	CQS = 82.3

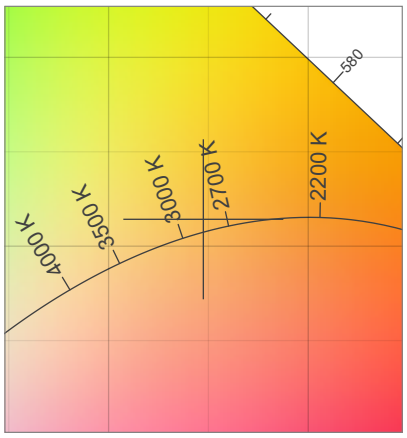
CIE 1931 Chromaticity diagram



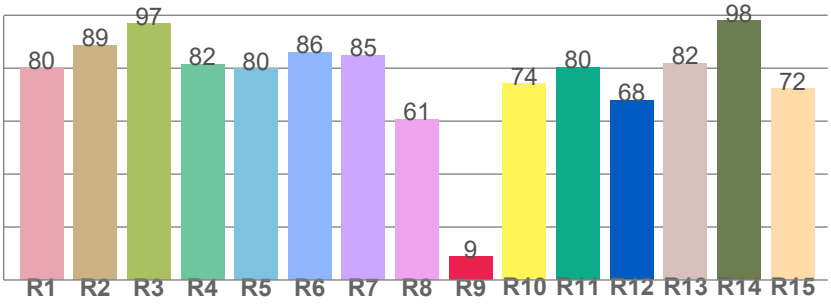
Spectral power distribution



CIE 1931 Chromaticity - zoomed



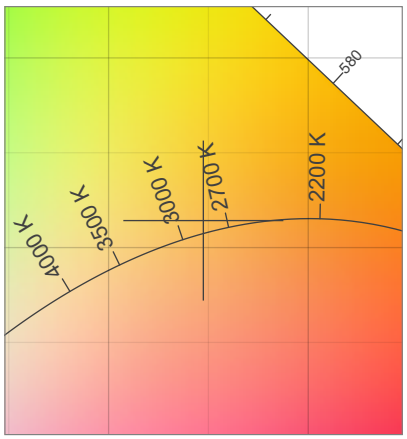
Color Rendering Index per reference color (CIE 1995)



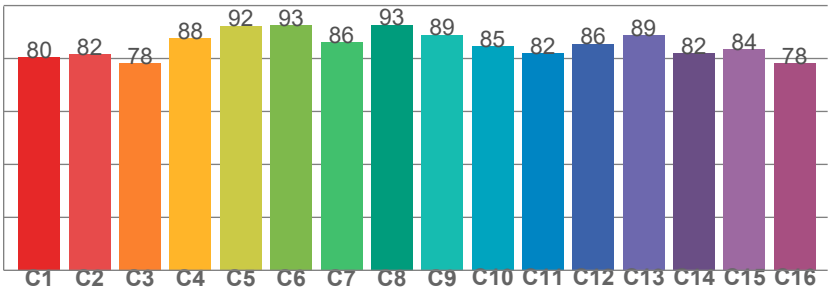
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80.2	88.8	96.8	81.5	79.7	86.1	84.9	60.7	8.7	74.2	80.4	68.0	81.9	98.0	72.2

CIE 1931 Chromaticity - SDCM



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
80.5	81.7	78.2	87.8	92.3	92.6	86.1	92.7	88.9	84.7	81.8	85.6	88.9	82.0	83.6	78.3

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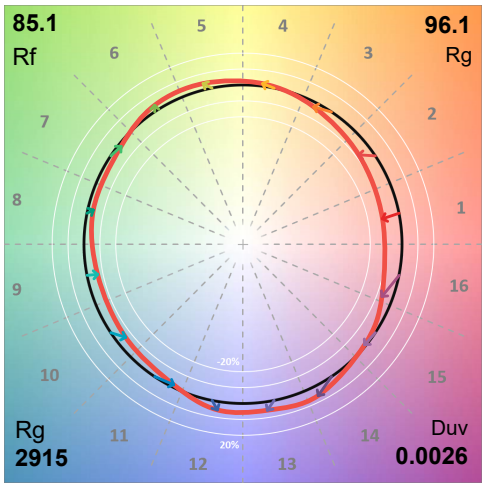
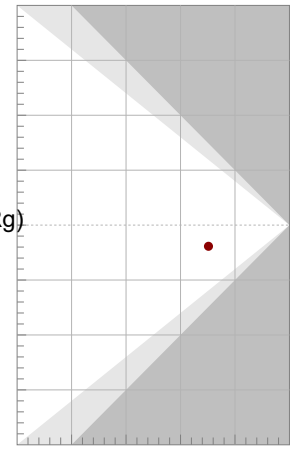
Color details - ANSI/IES TM-30-18 Color Rendition Report

Color Vector Graphic



Color Distortion Graphic

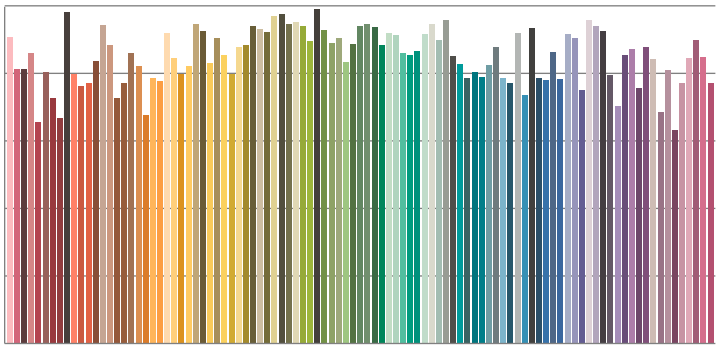
Gamut Index vs. Fidelity Index



Gamut index (Rg)

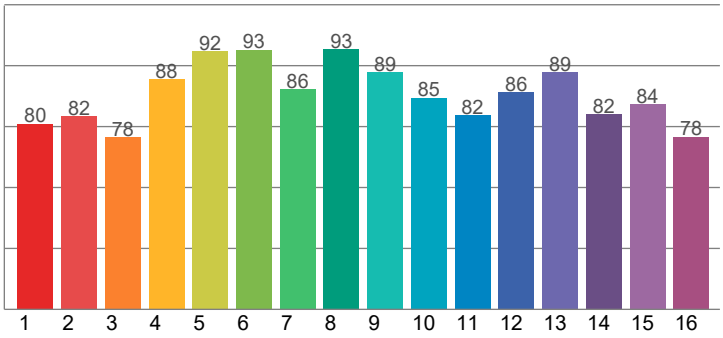
Fidelity index (Rf)

Color Rendition by Color Evaluation Sample (CES)



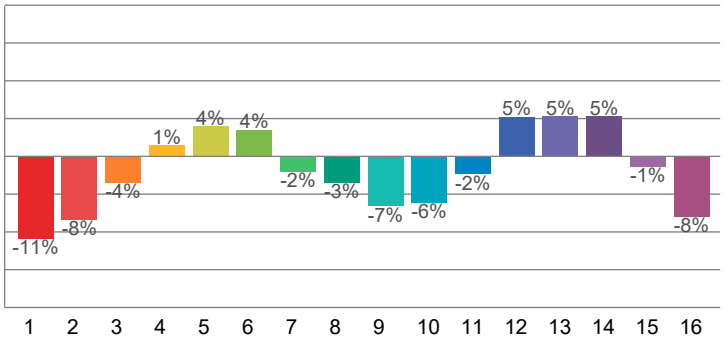
Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



Hue angle bin (j)

Local Chroma Shift (per hue bin)



Hue angle bin (j)

CIE x	0.447
CIE y	0.447
CIE u'	0.253
CIE v'	0.527

CIE	13.3-1995
Ra	82.3
R9	8.7

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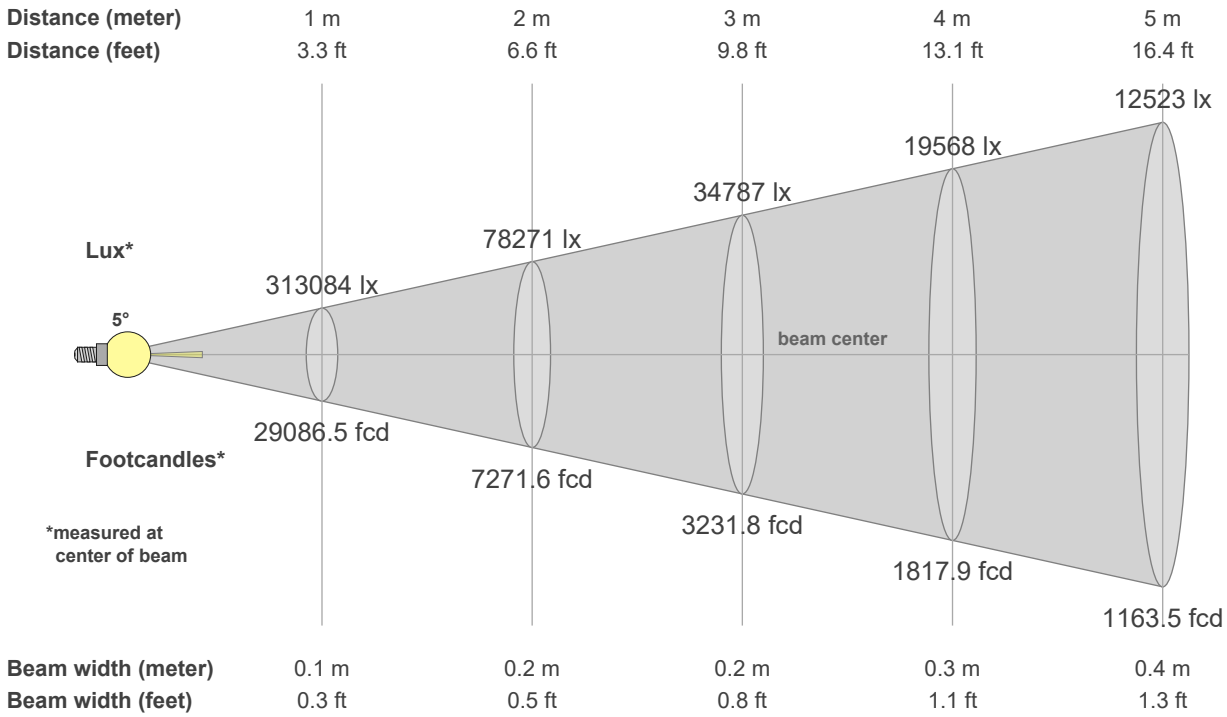
Beam details



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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
313084	78271	34787	19568	12523	8697	6389	4892	3865	3131	2587	2174	1853	1597	1391	1223	1083	966	867	783	lux
29086.5	7271.6	3231.8	1817.9	1163.5	808	593.6	454.5	359.1	290.9	240.4	202	172.1	148.4	129.3	113.6	100.6	89.8	80.6	72.7	fc

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	γ
313K	268K	182K	105K	53K	23K	11K	7K	5K	4K	4K	3K	3K	2K	2K	2K	2K	1K	1K	1K	cd
100%	86%	58%	34%	17%	7%	3%	2%	2%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	of 0°val

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	γ
313K	275K	190K	117K	65K	30K	13K	8K	6K	5K	4K	3K	3K	2K	2K	2K	2K	1K	1K	1K	cd
100%	88%	61%	37%	21%	9%	4%	3%	2%	2%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%	of 0°val

Intensities in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	γ
313K	268K	182K	105K	53K	23K	11K	7K	5K	4K	4K	3K	3K	2K	2K	2K	2K	1K	1K	1K	cd
100%	86%	58%	34%	17%	7%	3%	2%	2%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	of 0°val

Intensities in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	γ
313K	275K	190K	117K	65K	30K	13K	8K	6K	5K	4K	3K	3K	2K	2K	2K	2K	1K	1K	1K	cd
100%	88%	61%	37%	21%	9%	4%	3%	2%	2%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%	of 0°val

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Power details

Input power	
Frequency of input power	0 Hz
Power feed to light source	52.3 W
RMS Input voltage feed V,RMS	379 V
RMS Input current feed I,RMS	0.138 A
Volt-Amp or apparent power = V,RMS*I,RMS	52.3 VA
Displacement factor of AC power feed	0.71
Power factor of AC current feed	1.0
Total harmonic distortion of the current	0%
Total harmonic distortion of the voltage	0%

Input power curve

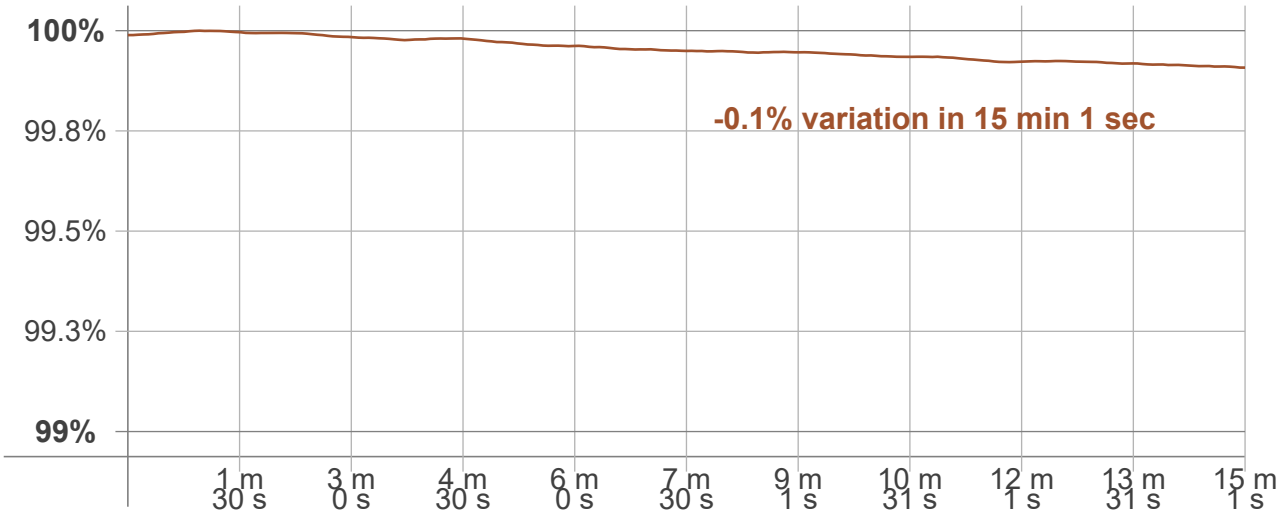
Efficiency

Radiated power efficiency	22.0%
Lumen efficiency	73 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	2915 K
Stable change max	2.0%	CCT shift	0 K
Minimum time	15 min	CCT end	2915 K
Warmup Result		**Output Change**	
Total warmup time	Lamp stabilized	Output start	3803 lm
Warmup variation	-0.1%	Output change	-3 lm
		Output end	3800 lm

Stabilization Curve



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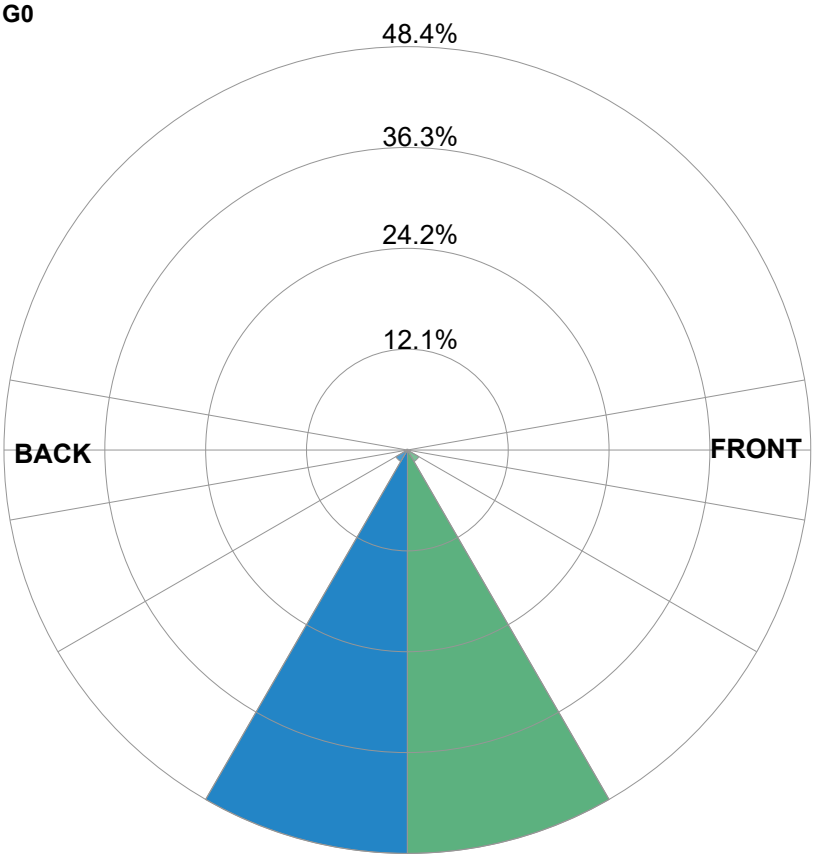
IESNA TM-15-07 LUMINIARE CLASSIFICATION SYSTEM FOR OUTDOOR LUMINAIRES

Forward Light			
Low (0-30°)	1839.2	lm	48.4%
Medium (30-60°)	60.5	lm	1.6%
High (60-80°)	0	lm	0%
Very High (80-90°)	0	lm	0%
Back Light			
Low (0-30°)	1839.5	lm	48.4%
Medium (30-60°)	60.5	lm	1.6%
High (60-80°)	0	lm	0%
Very High (80-90°)	0	lm	0%
Uplight			
Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%
Total			
Sum	3799.7	lm	100%

BUG RATING B3 U0 G0