Photometric Test Report

FL50-G2-XXX-3083-70-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-2025.Nov.27-6054-VO
Measurement date	2025-11-27

Measurement Conditions

Tested c-planes	36 planes – 10°
Tested gamma resolution	2.5°
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

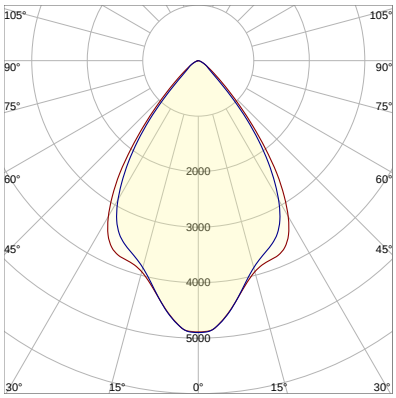
Tested Light Source

Product family	FL50-G2
Luminaire configuration	FL50-G2-XXX-3083-70-INF-XXXXX-X
Manufacturer	GVA Lighting, Inc
Size (width x length x height)	0 mm 0 mm x 10 mm

Main Light Measurement

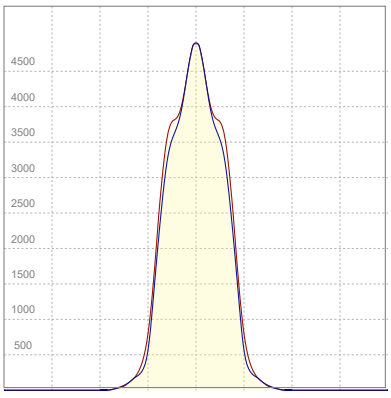
Output – Total Lumen (Up% / Down%)	5606 lm – 0% / 100%
Efficiency	107 lm/W
Peak Intensity	4925 cd
Correlated Color Temperature, CCT	2985 K
Color Rendering Index	CRI 82.9
Beam Angle (FWHM) | C0/180	70.1°
Beam Angle (FWHM) | C90/270	66.2°
Field Angle (10%) | C0/180	97.6°Unit: 0-100% of peak intensity
Field Angle (10%) | C90/270	92°
Optical Power	16.8 mW
Peak Wavelength	606 nm
Dominant Wavelength	584 nm

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

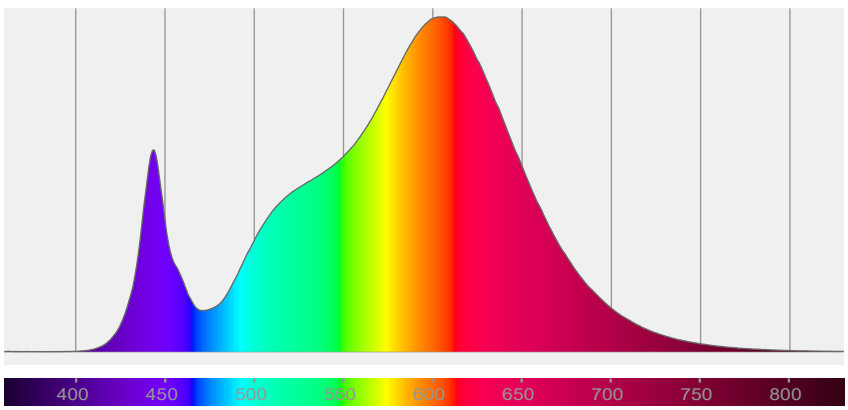


C0 - C180
C90 - C270
η = 100.0%

Linear distribution Diagram



Spectral Distribution



Color Temperature

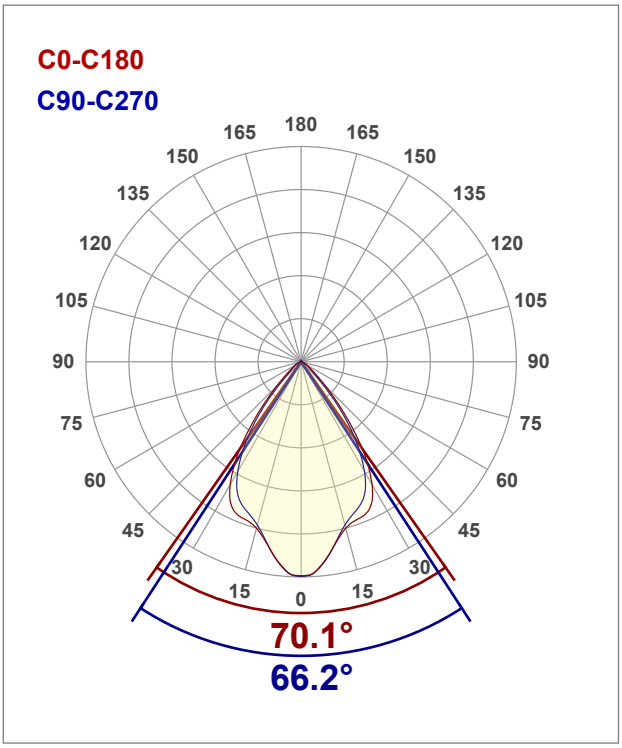
2985 K

Photometric Test Report

FL50-G2-XXX-3083-70-INF-XXXXX-X

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	5606 lm
Lumen Up% / Down%	0% / 100%
Peak Intensity	4925 cd
Beam Angle (50%-FWHM)	69.28°

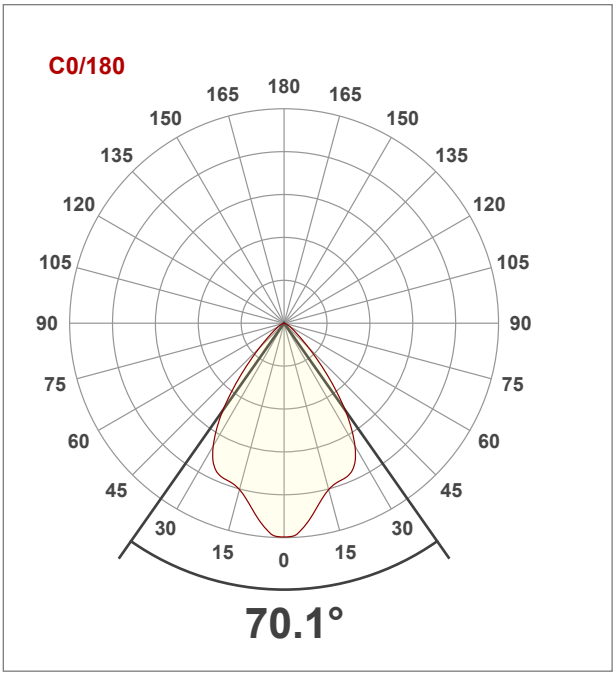
EU Ecodesign parameters

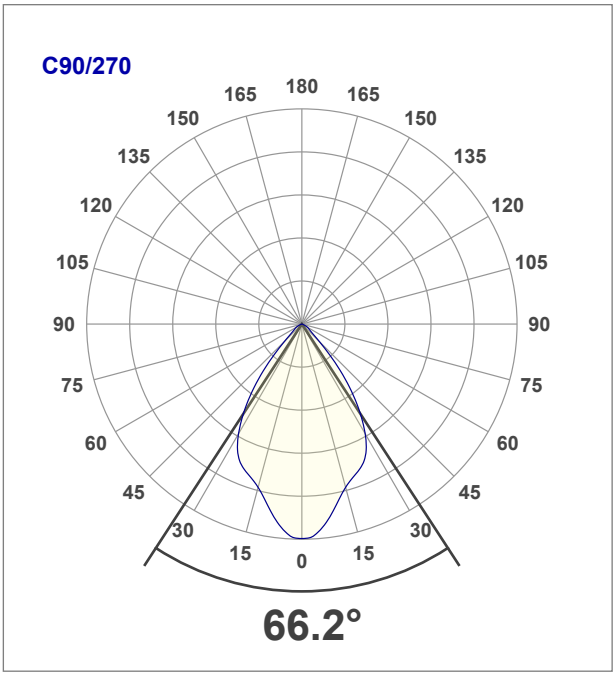
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous	5061 lm
Ecodesign Energy Class	E

Intensity Ratio

In 120° cone	97.9%
In 90° cone	90.3%

Angular Distribution

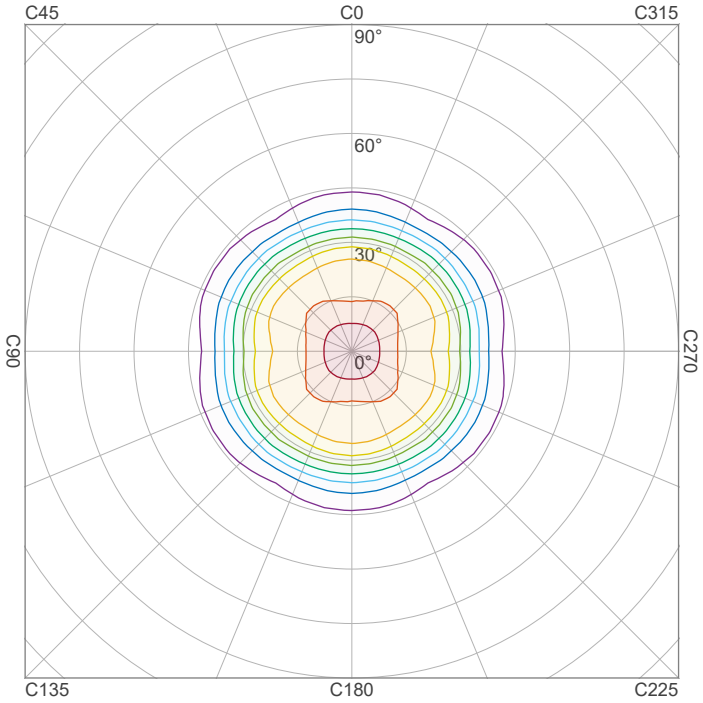




Photometric Test Report

FL50-G2-XXX-3083-70-INF-XXXXX-X

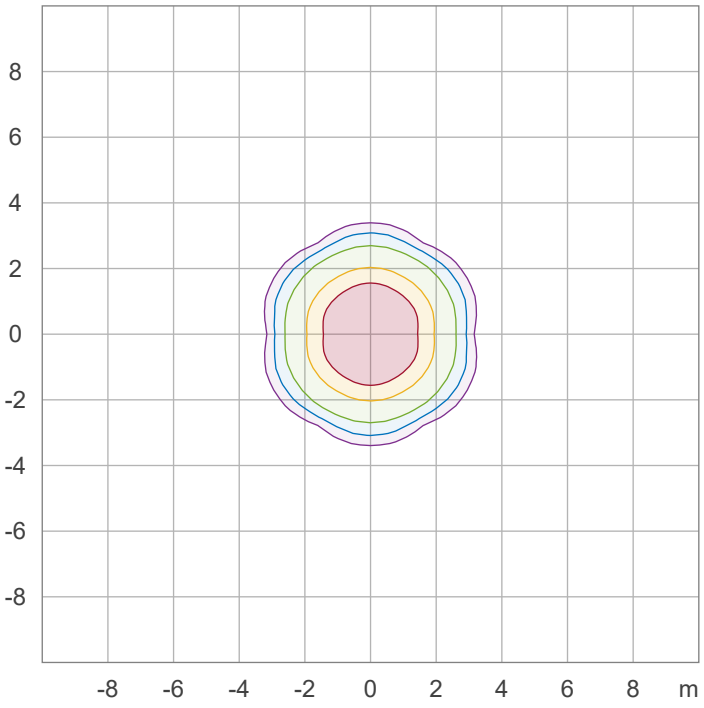
Iso-intensity Diagram (Iso-candela)



90 %	4422.8 cd
80 %	3931.4 cd
70 %	3440.0 cd
60 %	2948.5 cd
50 %	2457.1 cd
40 %	1965.7 cd
30 %	1474.3 cd
20 %	982.8 cd
10 %	491.4 cd

Peak intensity: 4914.2 cd
Number of c-planes: 36

Iso-illuminance Diagram (Iso-lux)



50.0 %	273.0 lx
30.0 %	163.8 lx
10.0 %	54.6 lx
5.0 %	27.3 lx
3.0 %	16.4 lx

Peak illuminance: 545.9 lx
Mounting height: 3.0 m
Number of c-planes: 36

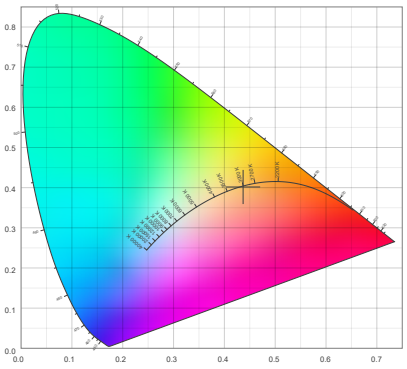
Photometric Test Report

FL50-G2-XXX-3083-70-INF-XXXXX-X

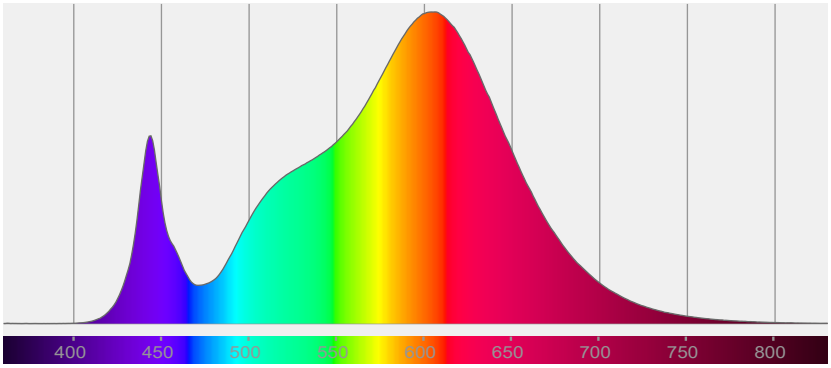
Color details

Correlated Color Temperature, Target	CCT = 2985 K	MacAdam Steps	SDCM = n/a
Correlated Color Temperature, Measured	CCT = 2985 K	Color deviation from BBL	Duv = -0.0010
Color Rendering Index	CRI 82.9	Color coordinates CIE 1931	(x;y) = (0.437;0.402)
Color Rendering Index, R9 (red)	R9 = 4.5	Color coordinate CIEs 1960	(u;v) = (0.252;0.347)
Color Rendering TM30-18	Rf 83.3	Color coordinate CIEs 1976	(u';v') = (0.252;0.520)
	Rg 99.0	Color Quality Scale	CQS = 81.3

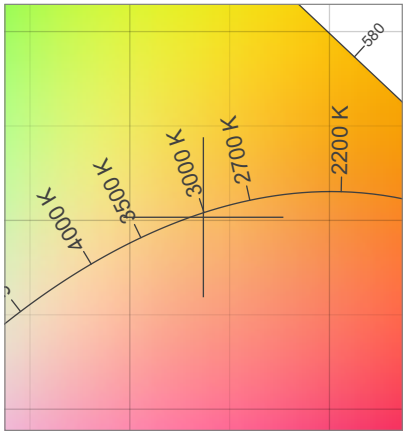
CIE 1931 Chromaticity diagram



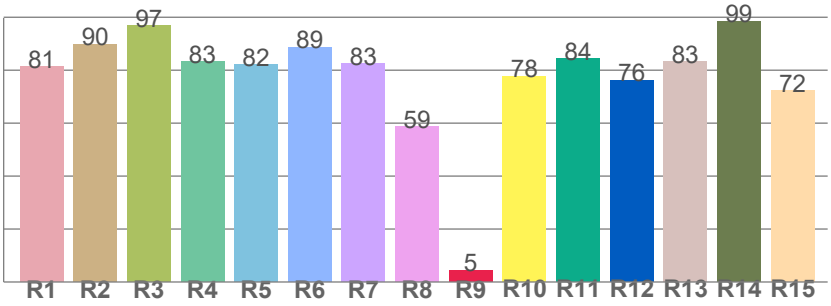
Spectral power distribution



CIE 1931 Chromaticity - zoomed



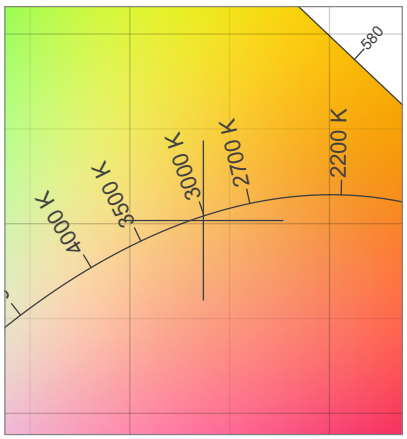
Color Rendering Index per reference color (CIE 1995)



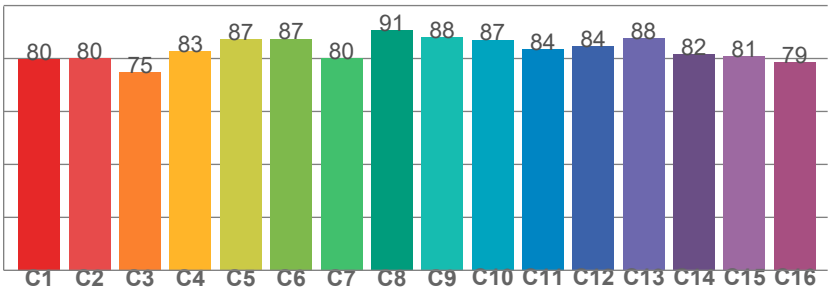
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81.4	89.8	96.9	83.1	82.0	88.7	82.6	58.6	4.5	77.7	84.5	76.2	83.3	98.6	72.3

CIE 1931 Chromaticity - SDCM



TM30-18 Rf-values per hue bin



TM30-18 Rf-values per hue bin

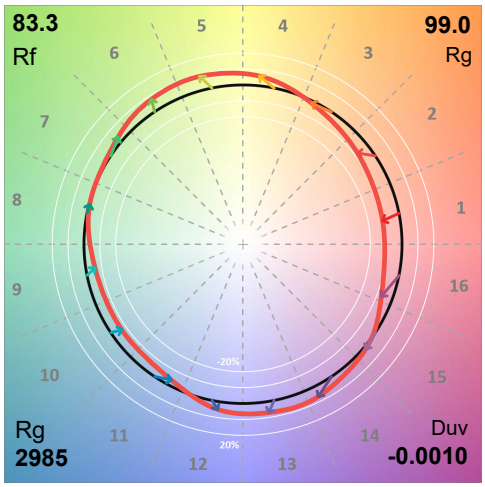
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79.8	80.2	74.7	82.8	87.1	87.4	80.1	90.6	88.1	87.0	83.6	84.5	87.6	81.6	80.9	78.7

Photometric Test Report

FL50-G2-XXX-3083-70-INF-XXXXX-X

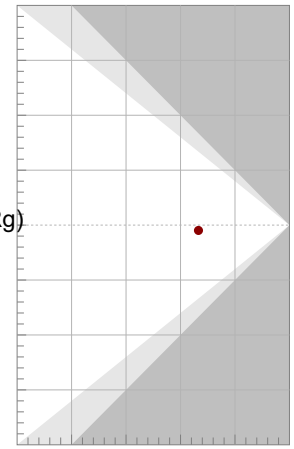
Color details - ANSI/IES TM-30-18 Color Rendition Report

Color Vector Graphic



Color Distortion Graphic

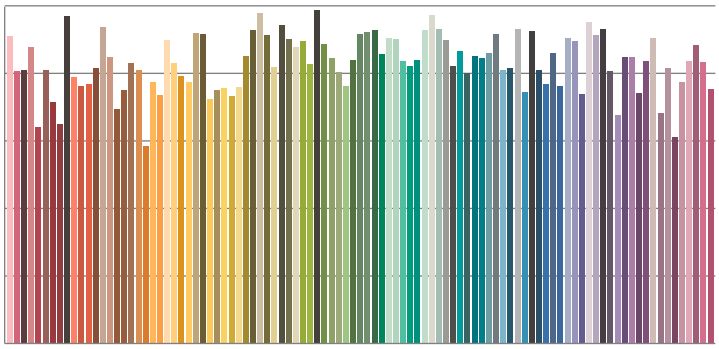
Gamut Index vs. Fidelity Index



Gamut index (Rg)

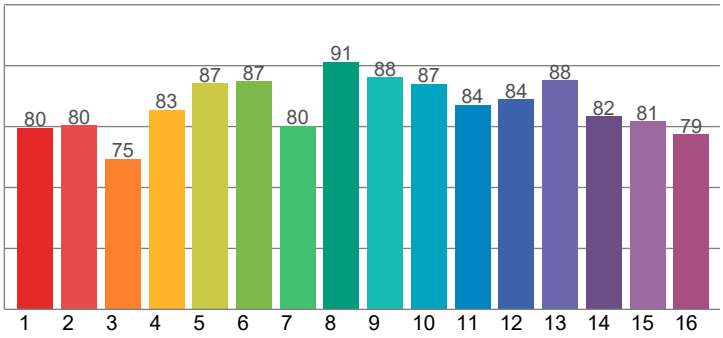
Fidelity index (Rf)

Color Rendition by Color Evaluation Sample (CES)



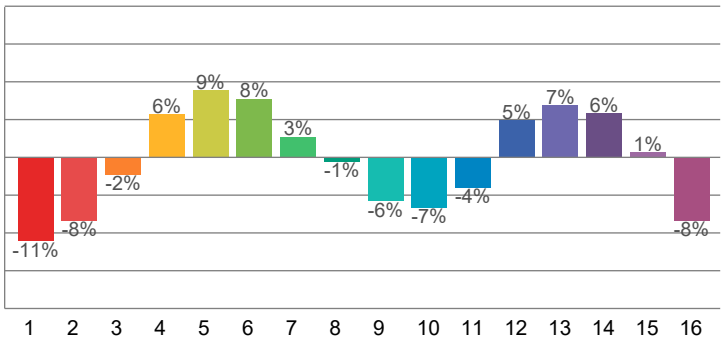
Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



Hue angle bin (j)

Local Chroma Shift (per hue bin)



Hue angle bin (j)

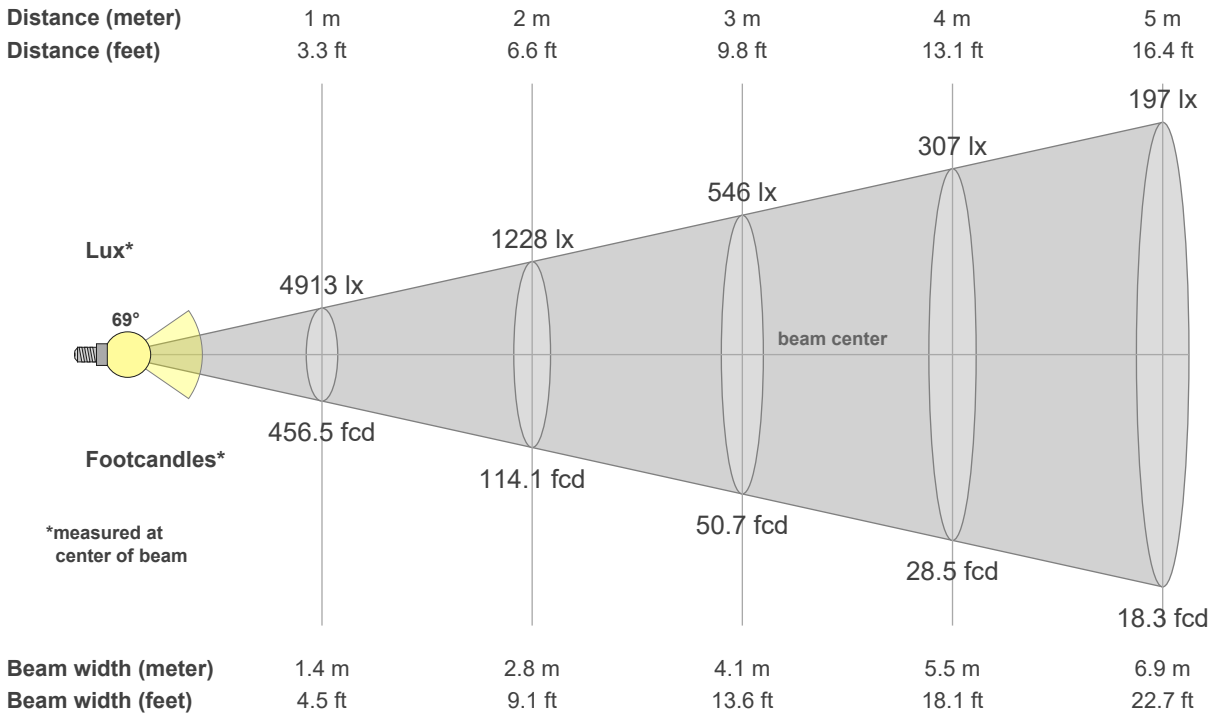
CIE x	0.437
CIE y	0.437
CIE u'	0.252
CIE v'	0.520

CIE	13.3-1995
Ra	82.9
R9	4.5

Photometric Test Report

FL50-G2-XXX-3083-70-INF-XXXXX-X

Beam details



Photometric Test Report

FL50-G2-XXX-3083-70-INF-XXXXX-X

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
4913	1228	546	307	197	136	100	77	61	49	41	34	29	25	22	19	17	15	14	12	lux
456.5	114.1	50.7	28.5	18.3	12.7	9.3	7.1	5.6	4.6	3.8	3.2	2.7	2.3	2	1.8	1.6	1.4	1.3	1.1	fc

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	γ
4913	4871	4779	4638	4469	4287	4124	3995	3904	3846	3817	3794	3736	3629	3465	3237	2945	2620	2256	1876	cd
100%	99%	97%	94%	91%	87%	84%	81%	79%	78%	78%	77%	76%	74%	71%	66%	60%	53%	46%	38%	of 0°val

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	γ
4913	4885	4787	4645	4472	4281	4091	3933	3809	3712	3631	3555	3454	3313	3124	2888	2610	2304	1979	1642	cd
100%	99%	97%	95%	91%	87%	83%	80%	78%	76%	74%	72%	70%	67%	64%	59%	53%	47%	40%	33%	of 0°val

Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	γ
4913	4871	4779	4638	4469	4287	4124	3995	3904	3846	3817	3794	3736	3629	3465	3237	2945	2620	2256	1876	cd
100%	99%	97%	94%	91%	87%	84%	81%	79%	78%	78%	77%	76%	74%	71%	66%	60%	53%	46%	38%	of 0°val

Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	γ
4913	4885	4787	4645	4472	4281	4091	3933	3809	3712	3631	3555	3454	3313	3124	2888	2610	2304	1979	1642	cd
100%	99%	97%	95%	91%	87%	83%	80%	78%	76%	74%	72%	70%	67%	64%	59%	53%	47%	40%	33%	of 0°val

Photometric Test Report

FL50-G2-XXX-3083-70-INF-XXXXX-X

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

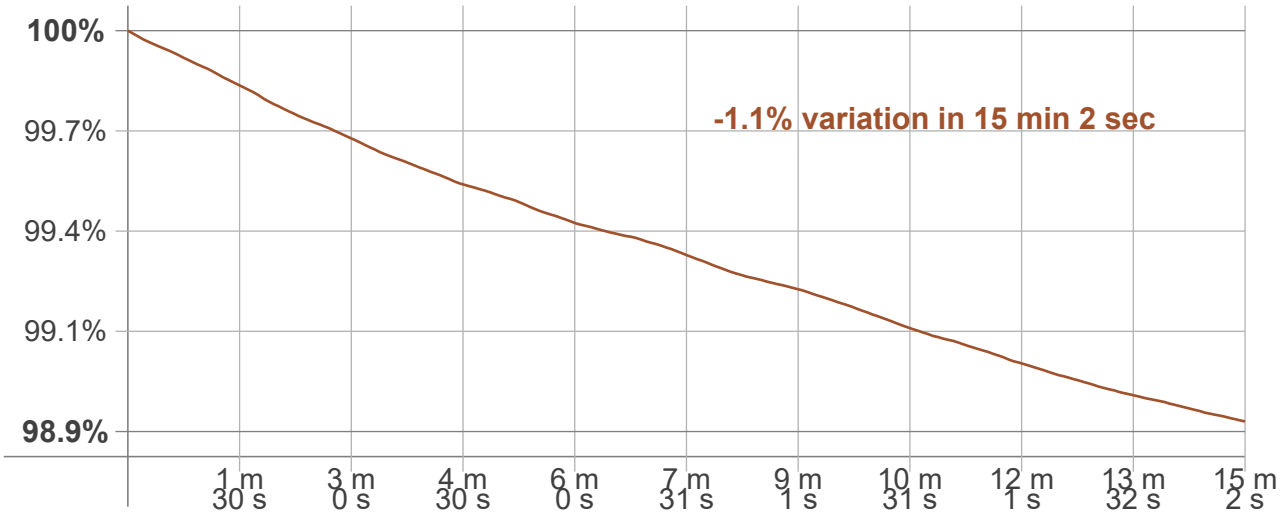
Efficiency

Radiated power efficiency	32.2%
Lumen efficiency	107 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	2982 K
Stable change max	2.0%	CCT shift	+3 K
Minimum time	15 min	CCT end	2985 K
Warmup Result		**Output Change**	
Total warmup time	Lamp stabilized	Output start	5670 lm
Warmup variation	-1.1%	Output change	-64 lm
		Output end	5606 lm

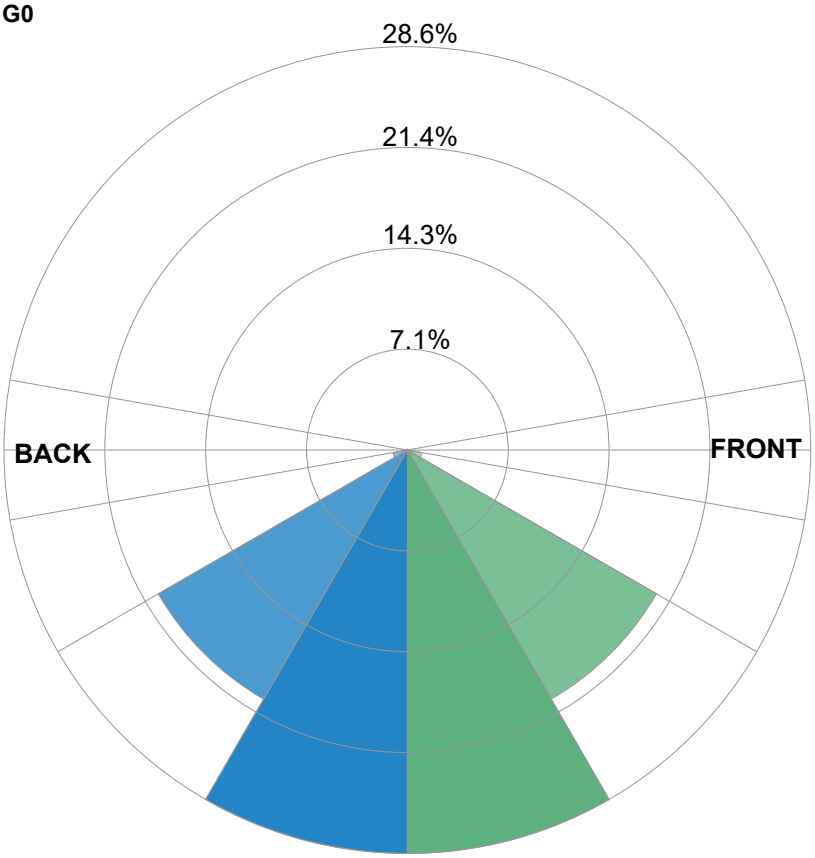
Stabilization Curve



Photometric Test Report

FL50-G2-XXX-3083-70-INF-XXXXX-X

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

Forward Light			
Low (0-30°)	1602.3	lm	28.6%
Medium (30-60°)	1142.2	lm	20.4%
High (60-80°)	58	lm	1%
Very High (80-90°)	0.6	lm	0%
Back Light			
Low (0-30°)	1602.3	lm	28.6%
Medium (30-60°)	1142.2	lm	20.4%
High (60-80°)	58	lm	1%
Very High (80-90°)	0.6	lm	0%
Uplight			
Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%
Total			
Sum	5606.2	lm	100%

BUG RATING B3 U0 G0