PHOTOMETRICS REPORT

OVATION
F-55FC

CHAUVET PROFESSIONAL

Table of Contents

Testing Process

Total Illuminance Measurements

Illuminance is measured using the Viso Systems LabSpion®, which takes multiple measurements across a light beam to calculate the total delivered lumens, beam, and field of a product. These values can be described as the empirical output of the product as it projects from the lens or lenses. All photometric data contained in this report are obtained from the actual illuminance of the tested Chauvet light source and are never theoretical values derived from calculations.

Testing Lab Equipment and Process

The Chauvet headquarters in Sunrise, Florida has a climate- and light-controlled photometric testing laboratory where Chauvet products are analyzed and photometric data are measured using the Viso Systems LabSpion® light measurement solution.

This system includes a spectrometer sensor, which measures the precise light and color output of the fixture, and a two-axis goniometer, which rotates the product to allow for multi-angle and multi-directional measurement. The Viso Light Inspector software then collects and summarizes the data. From the data gathered, the software can also measure the beam and field angles, accurate color temperature, color quality, and illuminance at multiple distances. The custom-built, Chauvet-specific template presents this information in the photometric and chromaticity reports that follow.

IES (Illuminating Engineering Society) files, an industry-standard file format, are also generated from each test for easy distribution of photometric data.

Several light meters are also used for specific products or to recheck for precision. Accuracy is verified using one or more of the devices listed below:

- Sekonic SpectroMaster C-700-U
- EXTECH HD450 Datalogging Heavy Duty Light Meter
- Asensetek Essence Lighting Passport

To ensure accurate measurements in every photometric or chromaticity test, Chauvet routinely calibrates the LabSpion® system every six months as recommended by Viso Systems.

Photometric Report

Ovation F-55FC: Full Flood, Full Power

Report Summary

Output

Total Lumens: 621 lm
Peak Intensity: 429 cd
Illuminance @ 5m: 17 lux
Fixture Efficacy: 23 lm/W

Optical

Horizontal Beam Angle (50%): 71.6°
Vertical Beam Angle (50%): 76.3°
Horizontal Field Angle (10%): 93°
Vertical Field Angle (10%): 102°
Horizontal Cutoff Angle (3%): 105.9°
Vertical Cutoff Angle (3%): 118.1°

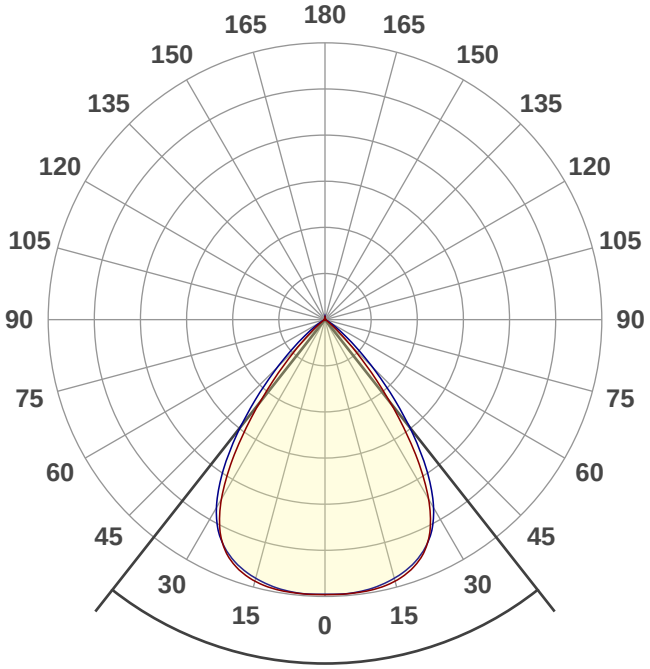
Conditions

AC Supply: 118 V, 60 Hz
Power: 44.48 W
Current: 0.377 A
Power Factor: 0.61

This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 9/10/2019 to LM-63-2002 Standards.

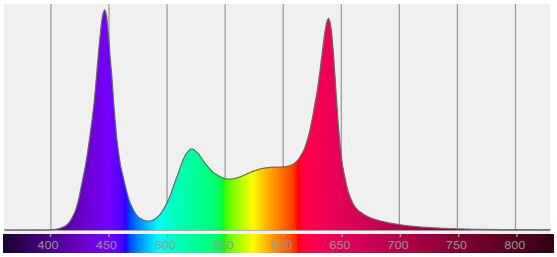
Overall Measurement

Angular Beam Distribution

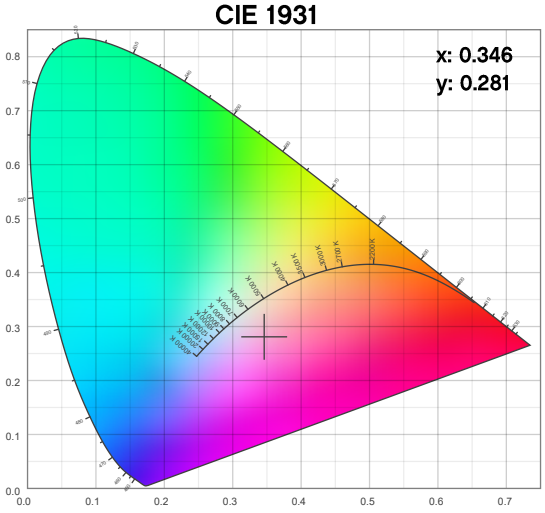


Beam Angle **76.4°**

Spectral Distribution



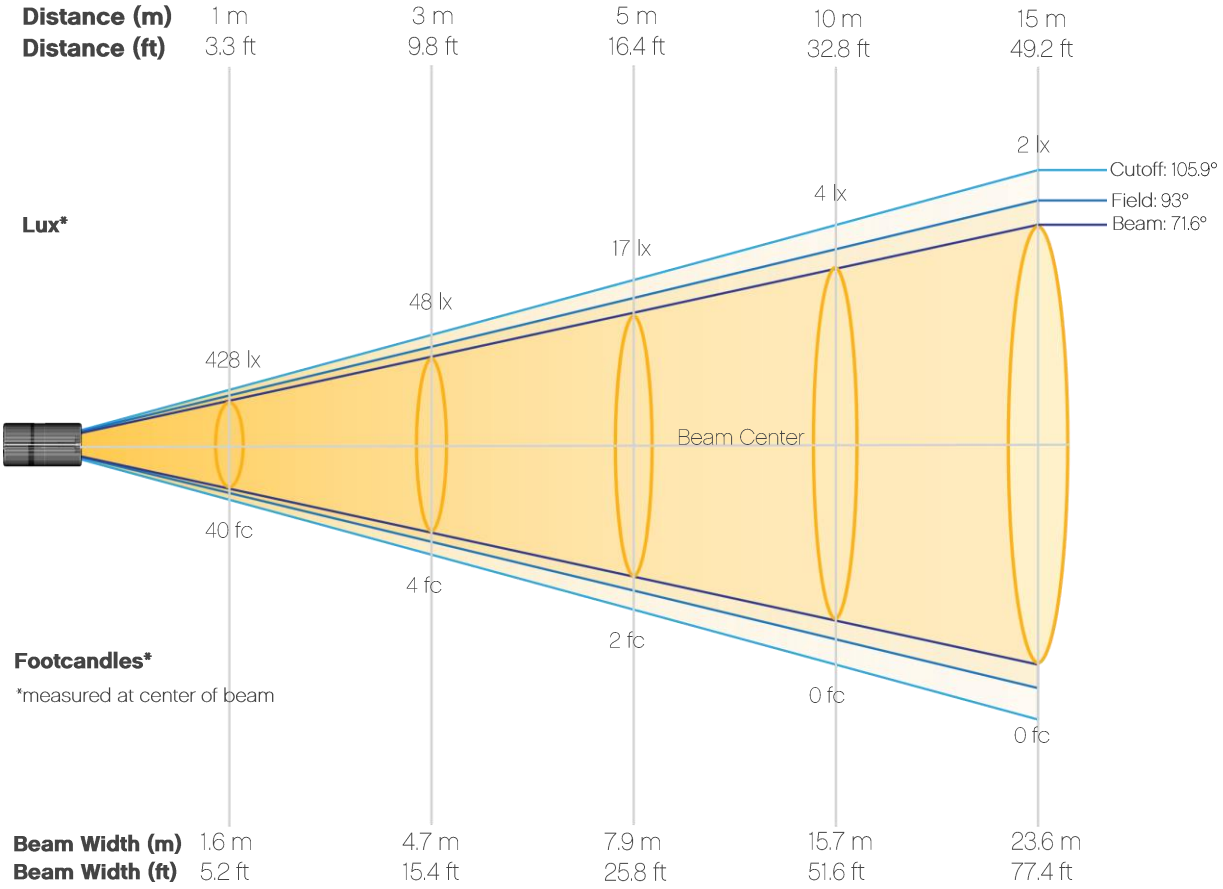
CIE 1931



Photometric Report

Ovation F-55FC: Full Flood, Full Power

Beam Details



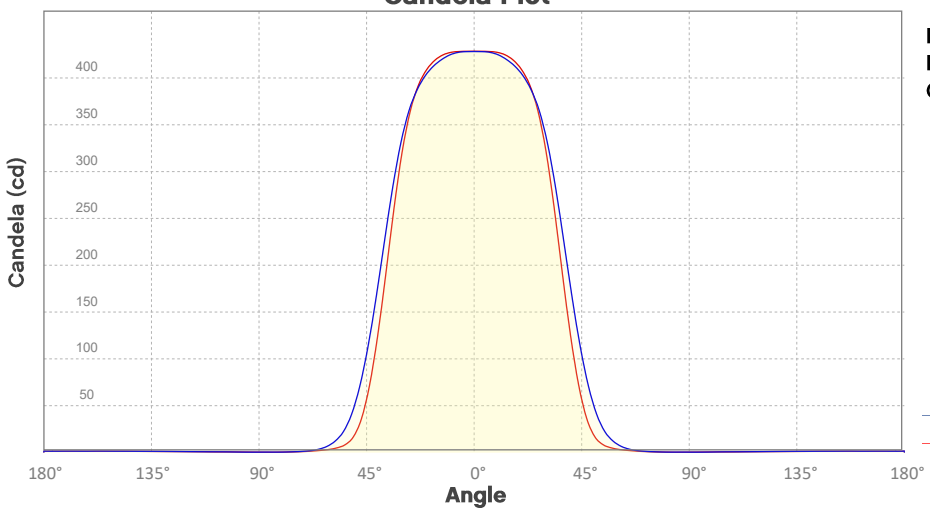
Beam Illuminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	428	107	48	27	17	12	9	7	5	4
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	4	3	3	2	2	2	1	1	1	1
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	40	10	4	2	2	1	1	1	0	0
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	0	0	0	0	0	0	0	0	0	0

Photometric Report

Ovation F-55FC: Full Flood, Full Power

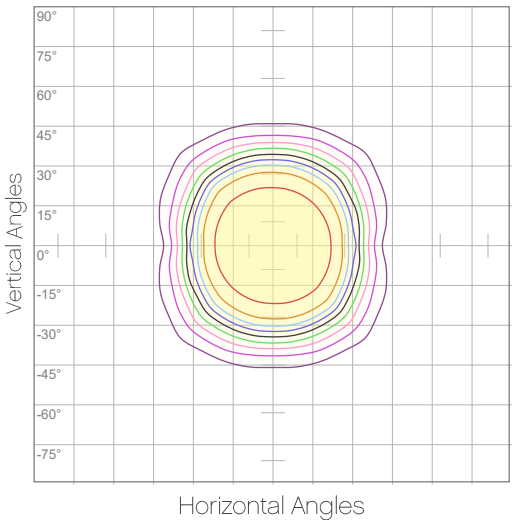
Candela Plot



Beam Angle (50%): 76.4°
Field Angle (10%): 103.5°
Cutoff Angle (3%): 119.3°

Horizontal Distribution
Vertical Distribution

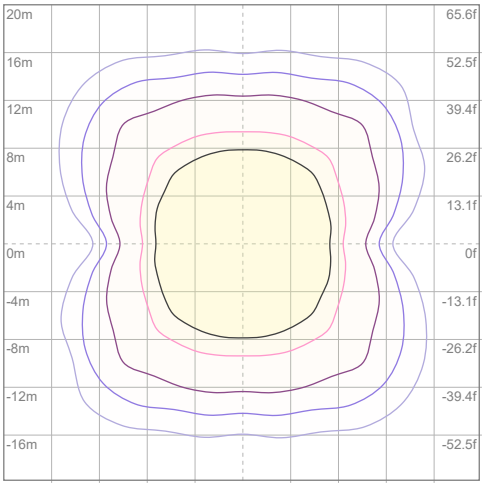
Polar Diagrams



iso-candela Diagram

10%	43 cd
20%	86 cd
30%	129 cd
40%	171 cd
50%	214 cd
60%	257 cd
70%	300 cd
80%	343 cd
90%	386 cd

Conditions:
Number of c-planes: 8
Candela at center: 428 cd



iso-illuminance Diagram

3%	0.129 lx
5%	0.214 lx
10%	0.428 lx
30%	1.29 lx
50%	2.14 lx

Conditions:
Number of c-planes: 8
Lux at center: 4.28 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

Mounting height: 10 meters / 33 feet

Photometric Report

Ovation F-55FC: Full Spot, Full Power

Report Summary

Output

Total Lumens: 137 lm
Peak Intensity: 931 cd
Illuminance @ 5m: 37 lux
Fixture Efficacy: 5 lm/W

Optical

Horizontal Beam Angle (50%): 18.9°
Vertical Beam Angle (50%): 19.8°
Horizontal Field Angle (10%): 34.4°
Vertical Field Angle (10%): 36.7°
Horizontal Cutoff Angle (3%): 46.4°
Vertical Cutoff Angle (3%): 51°

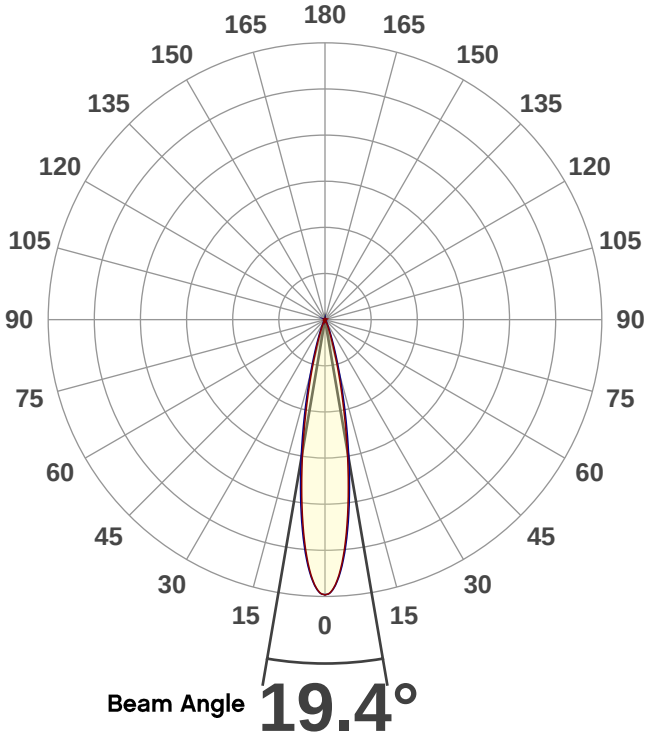
Conditions

AC Supply: 120 V, 60.1 Hz
Power: 44.12 W
Current: 0.369 A
Power Factor: 0.63

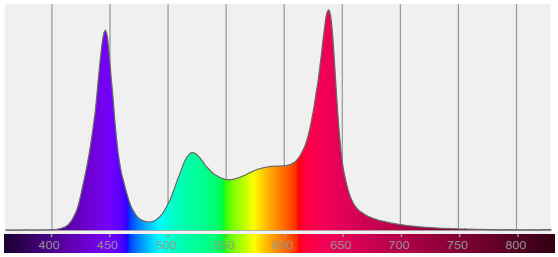
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 9/10/2019 to LM-63-2002 Standards.

Overall Measurement

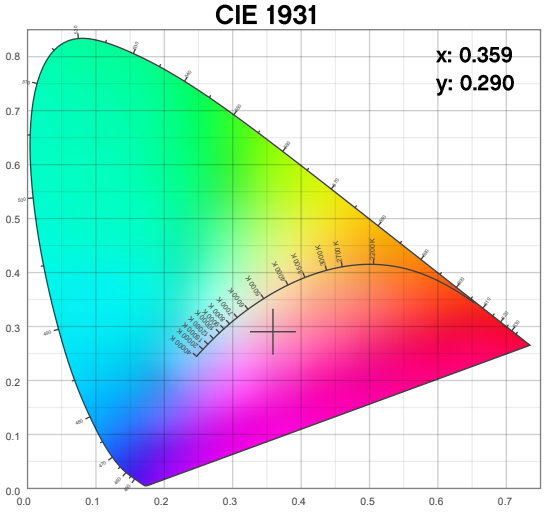
Angular Beam Distribution



Spectral Distribution



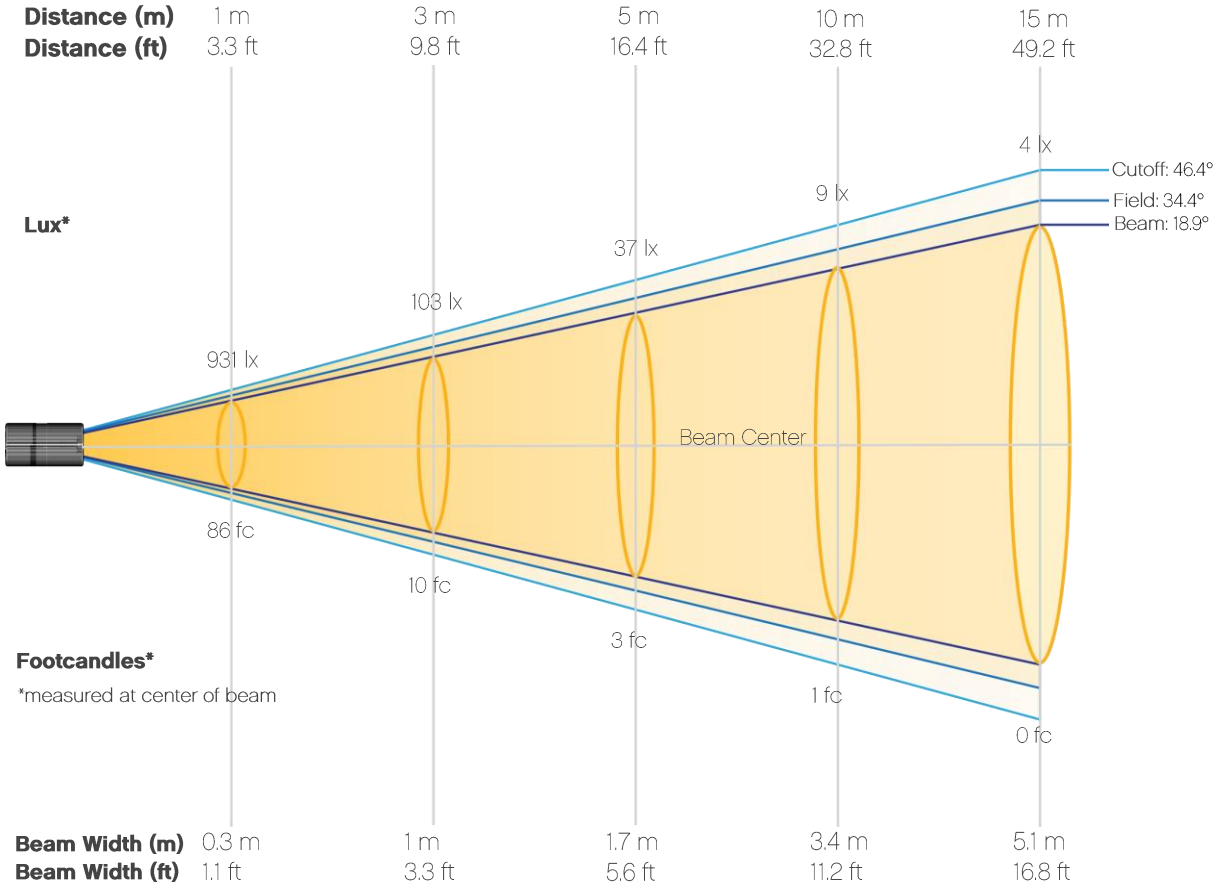
CIE 1931



Photometric Report

Ovation F-55FC: Full Spot, Full Power

Beam Details



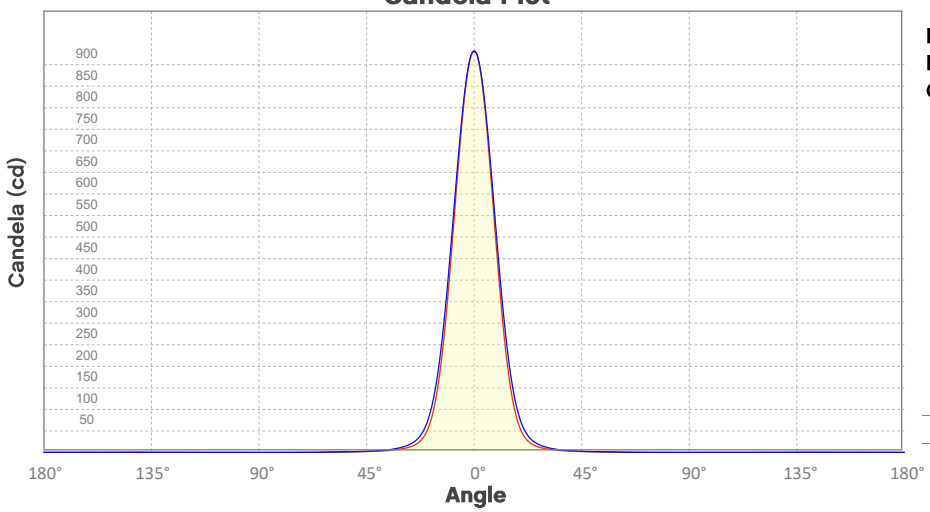
Beam Iluminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	931	233	103	58	37	26	19	15	11	9
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	8	6	6	5	4	4	3	3	3	2
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	86	22	10	5	3	2	2	1	1	1
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	1	1	1	0	0	0	0	0	0	0

Photometric Report

Ovation F-55FC: Full Spot, Full Power

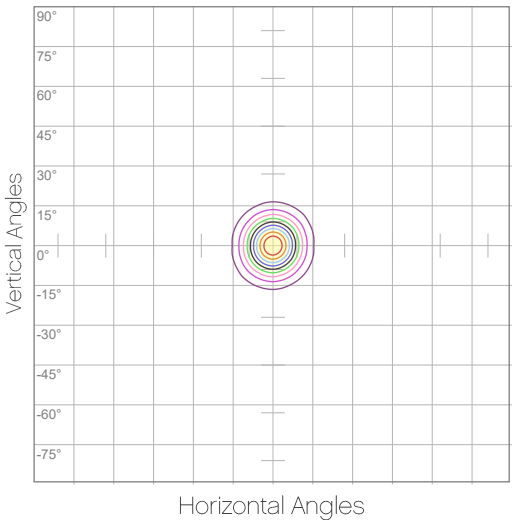
Candela Plot



Beam Angle (50%): 19.4°
Field Angle (10%): 35.8°
Cutoff Angle (3%): 50.1°

Horizontal Distribution
Vertical Distribution

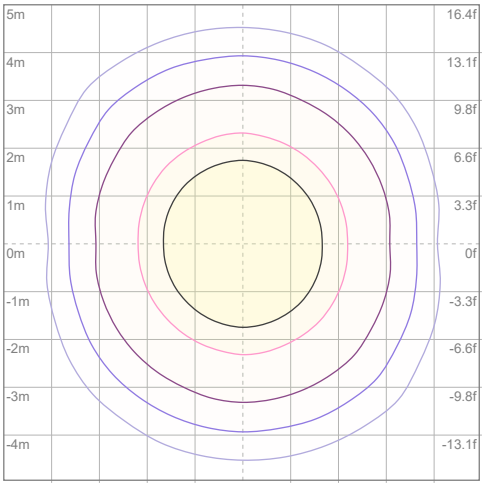
Polar Diagrams



iso-candela Diagram

10%	93 cd
20%	186 cd
30%	279 cd
40%	372 cd
50%	465 cd
60%	559 cd
70%	652 cd
80%	745 cd
90%	838 cd

Conditions:
Number of c-planes: 8
Candela at center: 931 cd



iso-illuminance Diagram

3%	0.279 lx
5%	0.465 lx
10%	0.931 lx
30%	2.79 lx
50%	4.65 lx

Conditions:
Number of c-planes: 8
Lux at center: 9.31 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

Mounting height: 10 meters / 33 feet

Photometric Report

Ovation F-55FC: 50% Zoom, Full Power

Report Summary

Output

Total Lumens: 294 lm
Peak Intensity: 692 cd
Illuminance @ 5m: 28 lux
Fixture Efficacy: 11 lm/W

Optical

Horizontal Beam Angle (50%): 36°
Vertical Beam Angle (50%): 37.7°
Horizontal Field Angle (10%): 55°
Vertical Field Angle (10%): 59.8°
Horizontal Cutoff Angle (3%): 68.4°
Vertical Cutoff Angle (3%): 76.1°

Conditions

AC Supply: 119 V, 60 Hz
Power: 43.83 W
Current: 0.367 A
Power Factor: 0.63

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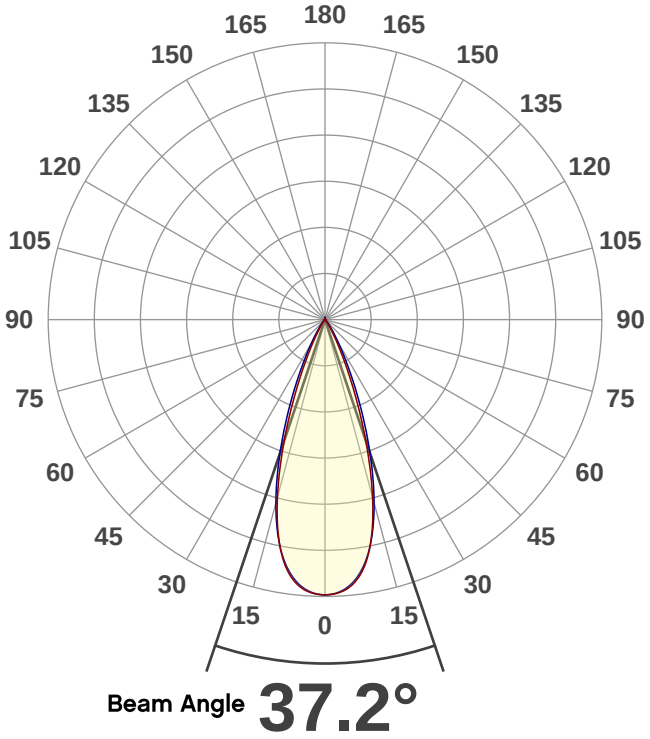
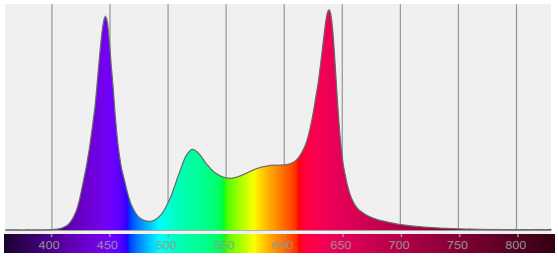
Overall Measurement

Angular Beam Distribution

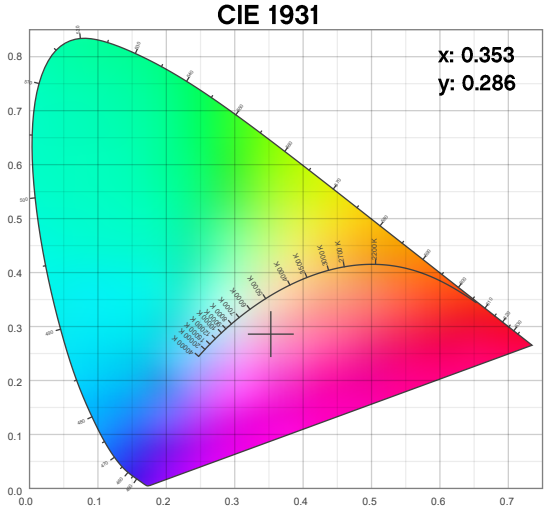


Beam Angle **37.2°**

Spectral Distribution



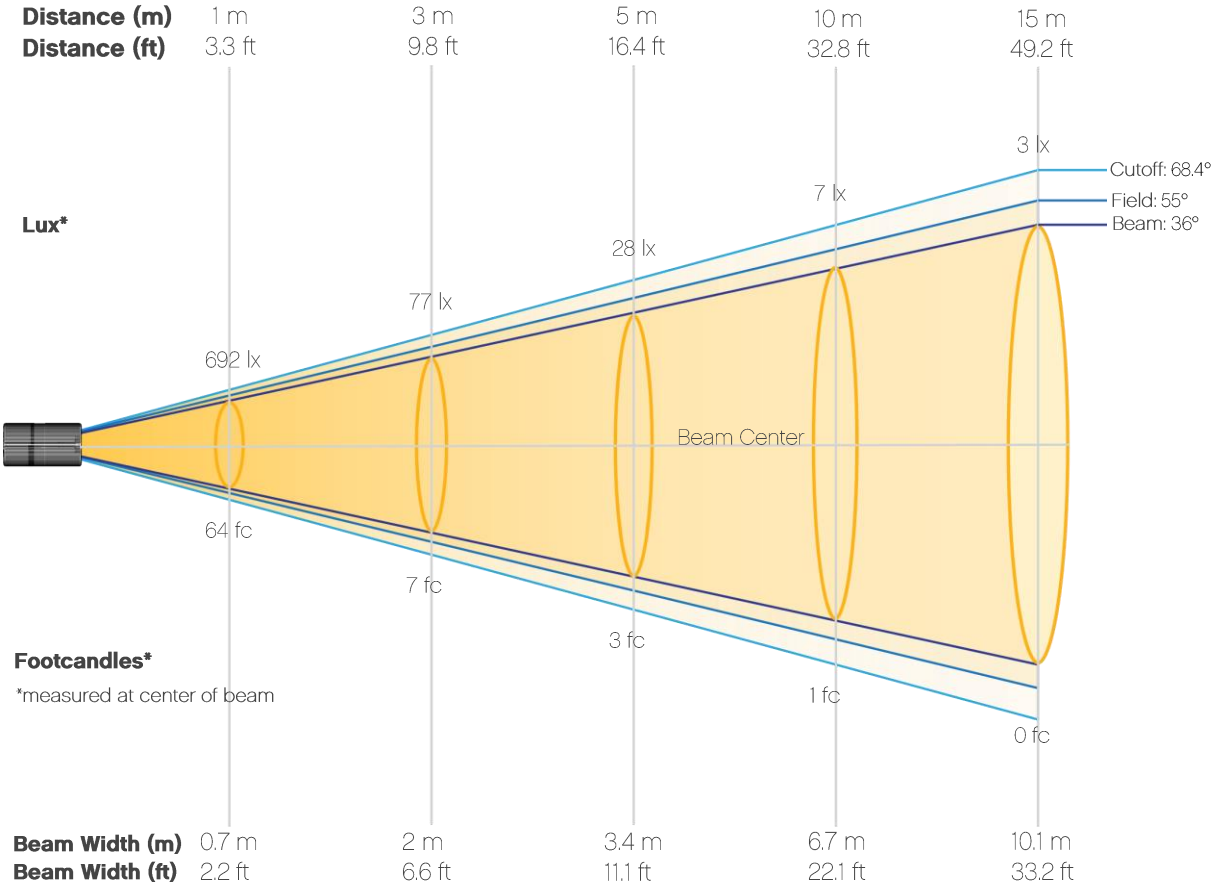
CIE 1931



Photometric Report

Ovation F-55FC: 50% Zoom, Full Power

Beam Details



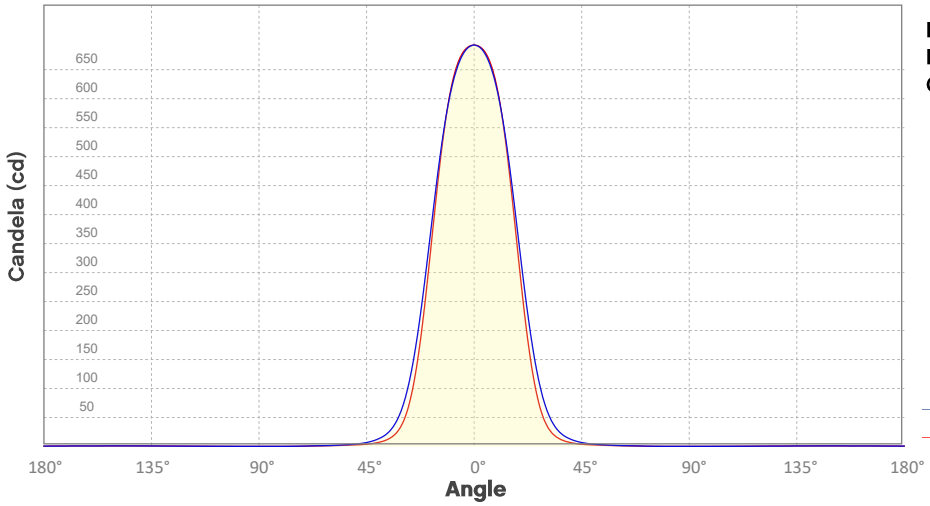
Beam Iluminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	692	173	77	43	28	19	14	11	9	7
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	6	5	4	4	3	3	2	2	2	2
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	64	16	7	4	3	2	1	1	1	1
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	1	0	0	0	0	0	0	0	0	0

Photometric Report

Ovation F-55FC: 50% Zoom, Full Power

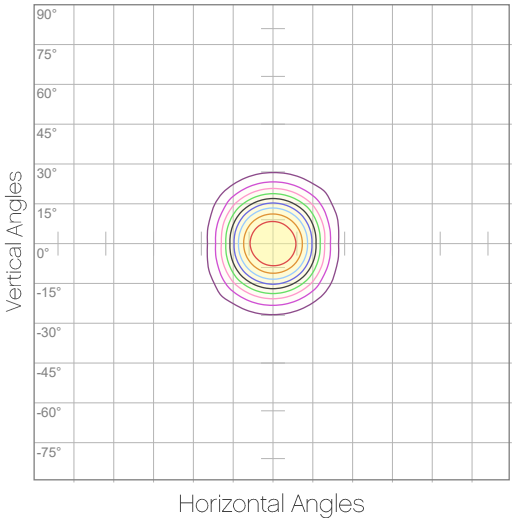
Candela Plot



Beam Angle (50%): 37.2°
Field Angle (10%): 59.2°
Cutoff Angle (3%): 76.8°

Horizontal Distribution
Vertical Distribution

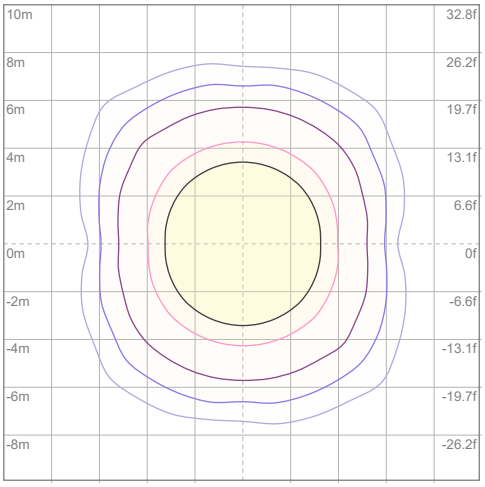
Polar Diagrams



iso-candela Diagram

10%	69 cd
20%	138 cd
30%	208 cd
40%	277 cd
50%	346 cd
60%	415 cd
70%	484 cd
80%	553 cd
90%	623 cd

Conditions:
Number of c-planes: 8
Candela at center: 692 cd



iso-illuminance Diagram

3%	0.208 lx
5%	0.346 lx
10%	0.692 lx
30%	2.08 lx
50%	3.46 lx

Conditions:
Number of c-planes: 8
Lux at center: 6.92 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

Mounting height: 10 meters / 33 feet

Chromaticity Report

Ovation F-55FC: 3200K

Report Summary

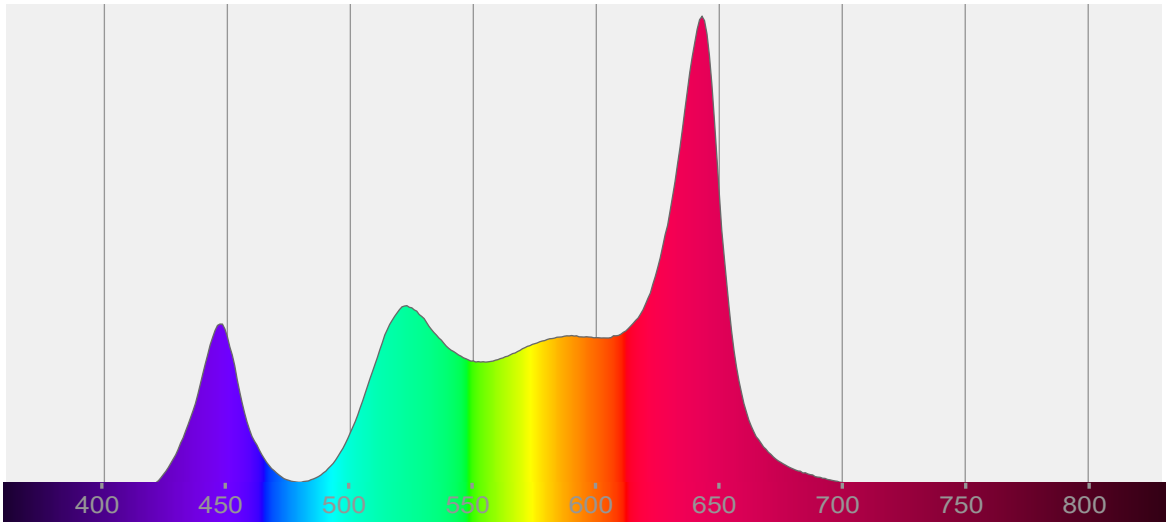
Measurements

Total Lumens: 324 lm
Peak Intensity: 703 cd
Fixture Efficacy: 12 lm/W

Correlated Color Temperature: 3211K
Δuv: -0.0024

CRI: 84.9 CRI R9 Value: 48.5
CQS: 87.8
TLCI: 66
TM-30-18 Rf: 85.3
TM-30-18 Rg: 113.4
1st Dominant Wavelength: 643 nM
2nd Dominant Wavelength: 523 nM

Spectral Distribution



Tested Color

3211 K
CIE 1931 Coordinates:
X: 0.420 Y: 0.392

Color Temperature

3211 K

Light Quality

CRI: 84.9

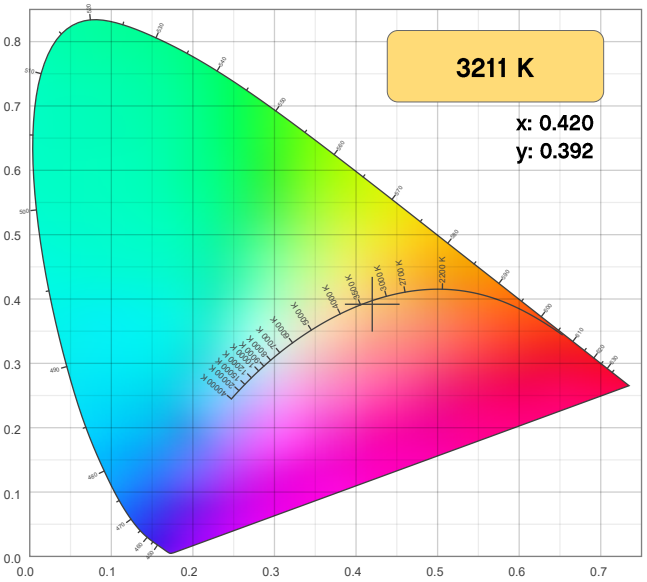
Notes:

Chromaticity Report

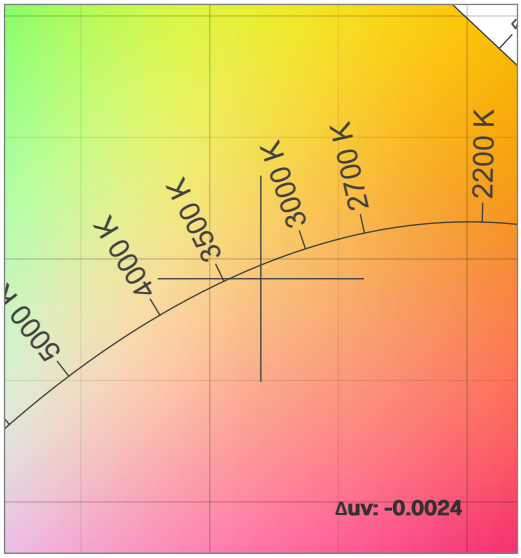
Ovation F-55FC: 3200K

Chromaticity

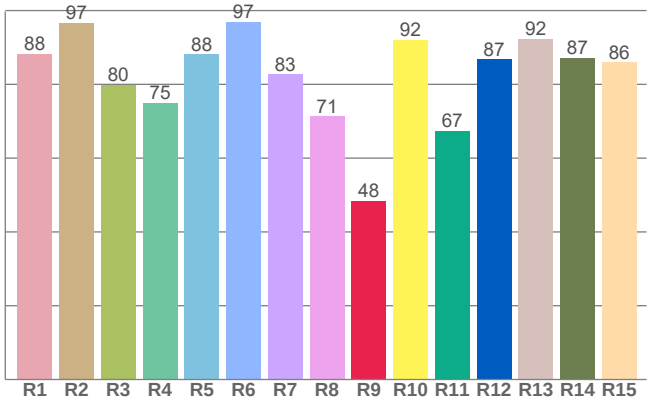
CIE 1931



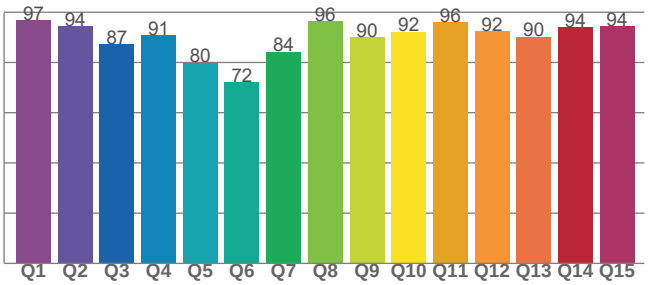
CIE 1931 - Zoom



CRI: 84.9 (R1-R8)



CQS: 87.8



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3211 K	0.420	0.392

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
-0.0024	0.392	0.245

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
84.9	48.5	87.8

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
66	85.3	113.4

Chromaticity Report

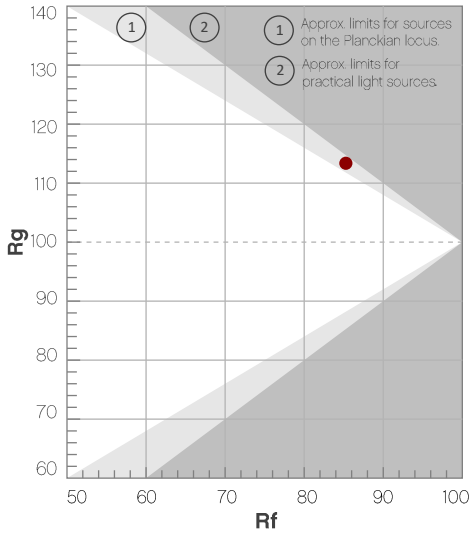
Ovation F-55FC: 3200K

TM-30-18 Details

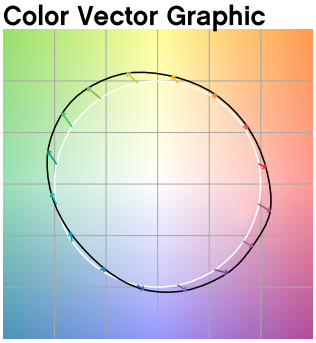
Rf 85.3
Fidelity Index (Rg)

Rg 113.4
Gamut Index (Rg)

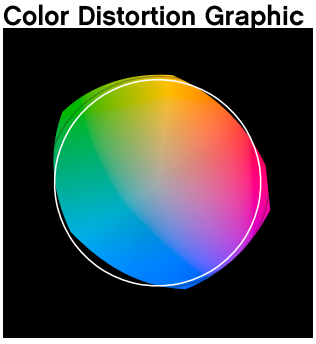
Hue Bin	R_f	Chroma Shift	Hue Shift
1	85	6%	-4%
2	91	3%	-2%
3	91	3%	3%
4	87	5%	6%
5	84	11%	8%
6	76	15%	5%
7	75	15%	-6%
8	77	11%	-10%
9	84	3%	-11%
10	87	-3%	-7%
11	89	-3%	4%
12	87	3%	6%
13	88	7%	7%
14	85	9%	8%
15	84	10%	1%
16	85	12%	-4%



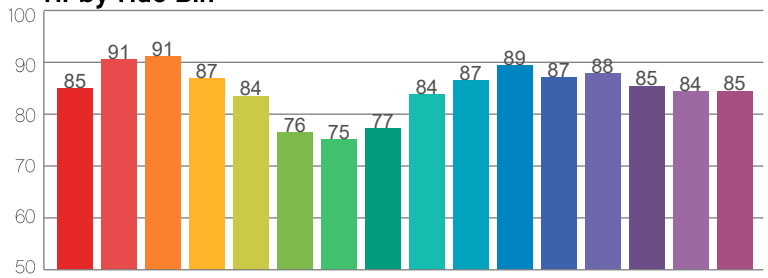
Color Vector Graphic



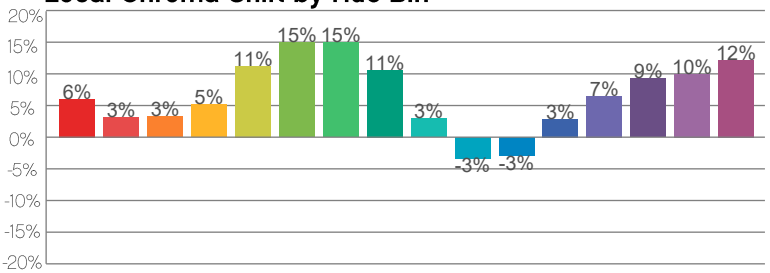
Color Distortion Graphic



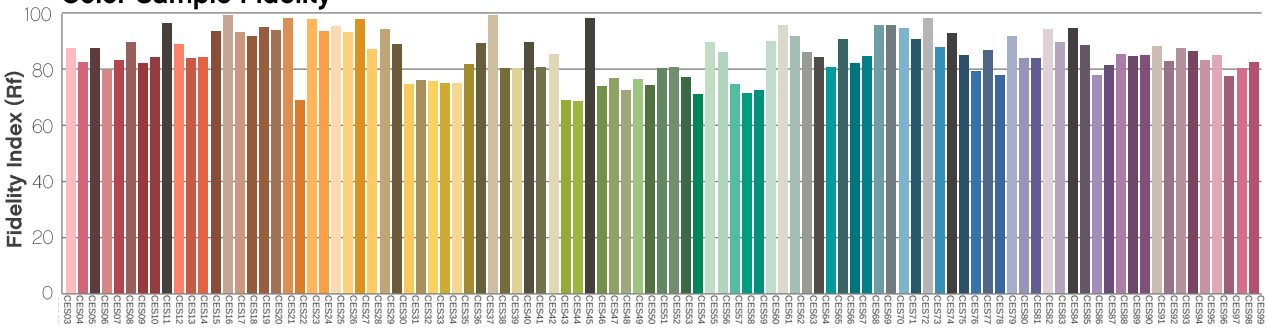
Rf by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



Chromaticity Report

Ovation F-55FC: 5600K

Report Summary

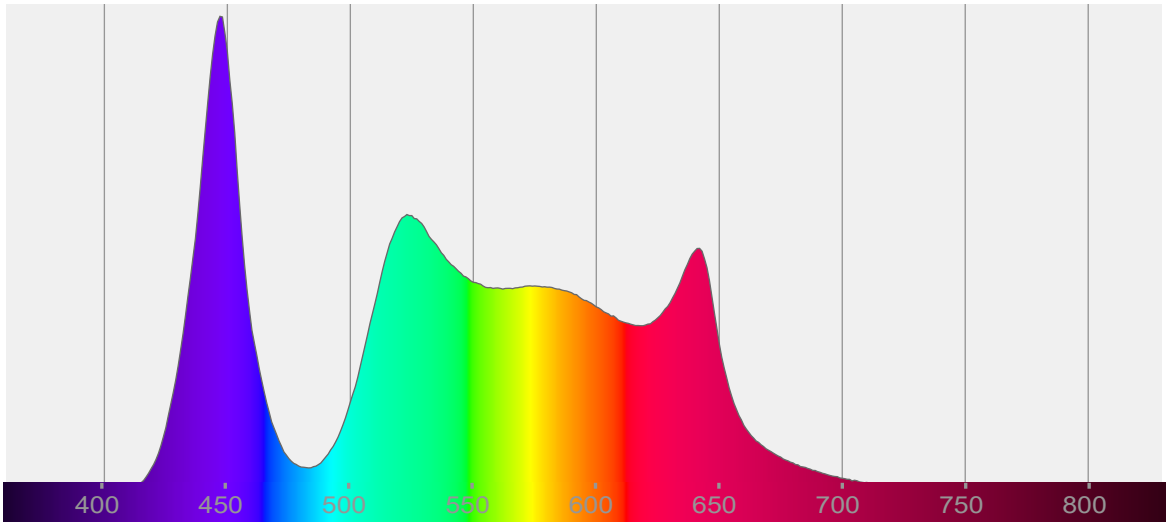
Measurements

Total Lumens: 319 lm
Peak Intensity: 694 cd
Fixture Efficacy: 13 lm/W

Correlated Color Temperature: 5590K
Δuv: -0.0019

CRI: 81.7 CRI R9 Value: 62.6
CQS: 82.7
TLCI: 70
TM-30-18 Rf: 79.7
TM-30-18 Rg: 105.2
1st Dominant Wavelength: 447 nM
2nd Dominant Wavelength: 523 nM

Spectral Distribution



Tested Color

5590 K
CIE 1931 Coordinates:
X: 0.331 Y: 0.342

Color Temperature

5590 K

Light Quality

CRI: 81.7

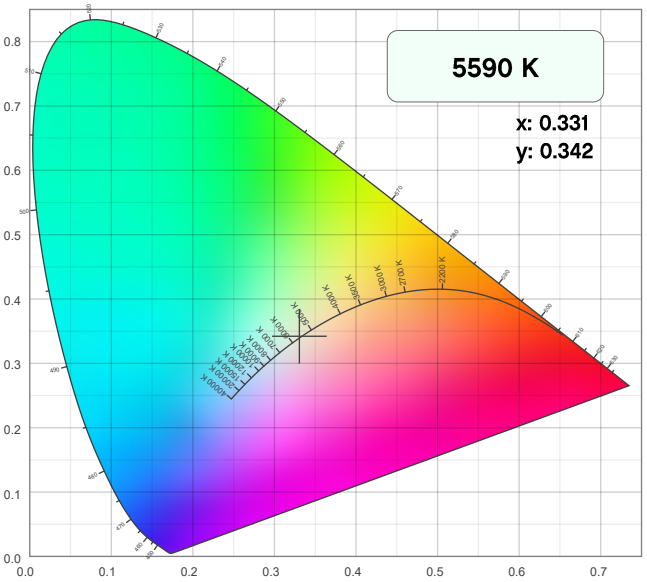
Notes:

Chromaticity Report

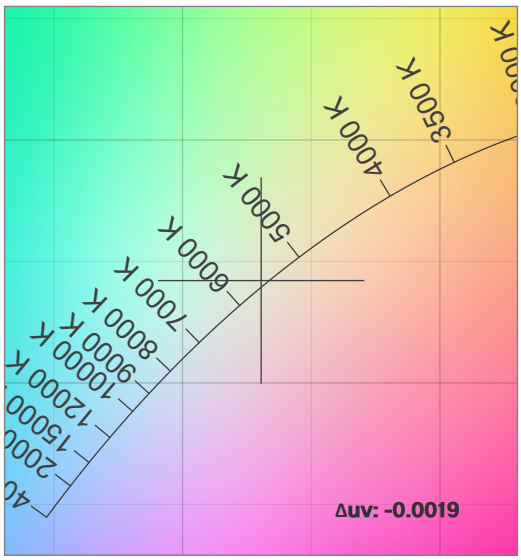
Ovation F-55FC: 5600K

Chromaticity

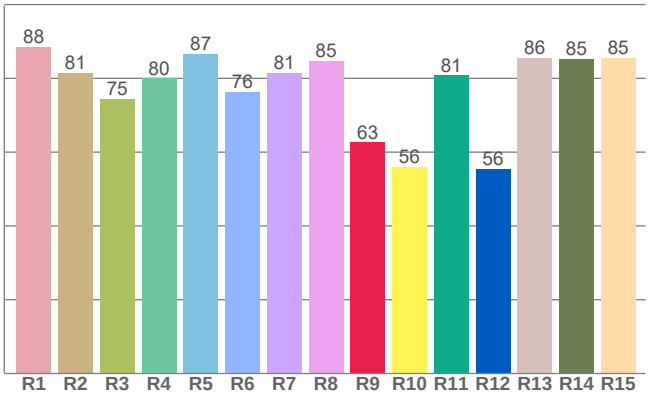
CIE 1931



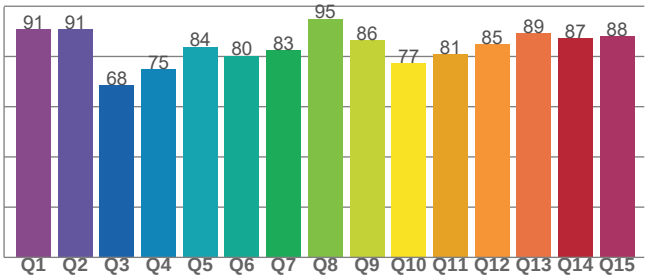
CIE 1931 - Zoom



CRI: 81.7 (R1-R8)



CQS: 82.7



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
5590 K	0.331	0.342

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
-0.0019	0.342	0.205

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
81.7	62.6	82.7

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
70	79.7	105.2

Chromaticity Report

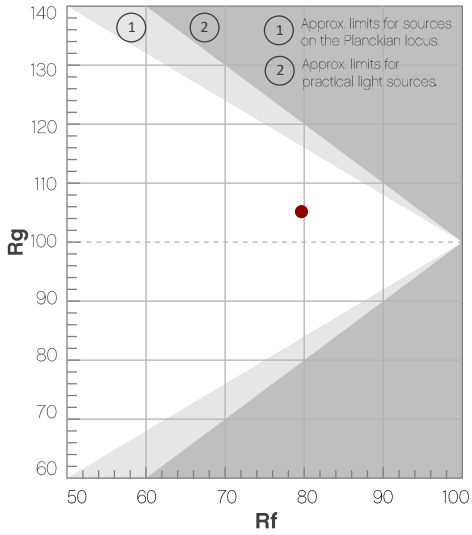
Ovation F-55FC: 5600K

TM-30-18 Details

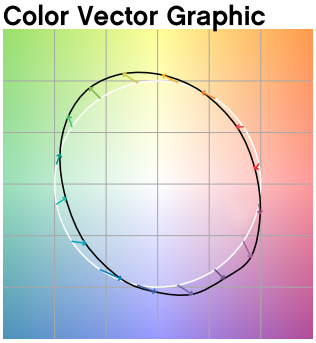
Rf 79.7
Fidelity Index (Rg)

Rg 105.2
Gamut Index (Rg)

Hue Bin	R_f	Chroma Shift	Hue Shift
1	88	-5%	-4%
2	90	-5%	3%
3	76	-2%	14%
4	74	5%	16%
5	76	11%	12%
6	79	14%	3%
7	84	9%	-7%
8	83	-1%	-10%
9	88	-10%	-4%
10	78	-10%	9%
11	65	-4%	22%
12	73	3%	18%
13	82	11%	12%
14	79	12%	3%
15	82	15%	-9%
16	85	3%	-9%

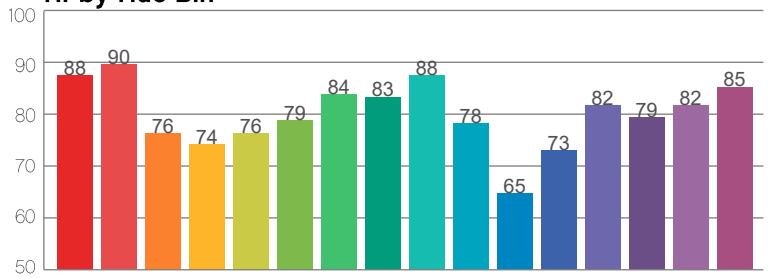


Color Vector Graphic

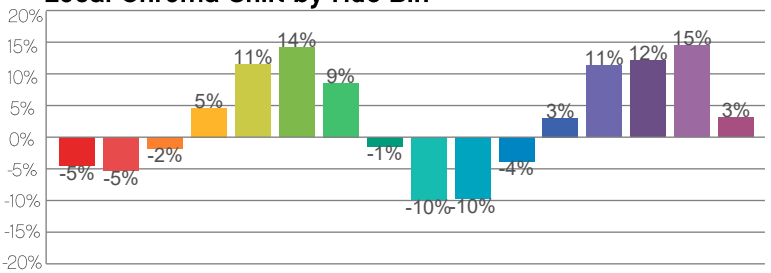


Color Distortion Graphic

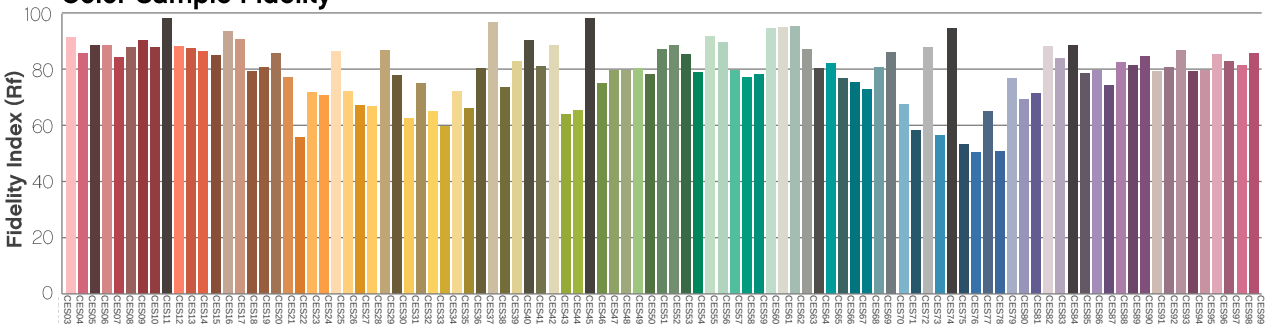
Rf by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



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Visit the applicable website above to verify our contact information and instructions to request support. Outside the U.S., U.K., Ireland, Benelux, France, Germany, or Mexico, contact the dealer of the record.