PHOTOMETRICS REPORT

OVATION
FD-105WW

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 FD-105WW: Full Flood, Full Power

Report Summary

Output

Total Lumens: 6488 lm
Peak Intensity: 7660 cd
Illuminance @ 5m: 239 lux
Fixture Efficacy: 62 lm/W

Optical

Horizontal Beam Angle (50%): 58.2°
Vertical Beam Angle (50%): 58.1°
Horizontal Field Angle (10%): 71.1°
Vertical Field Angle (10%): 70.8°
Horizontal Cutoff Angle (3%): 88.6°
Vertical Cutoff Angle (3%): 89.4°

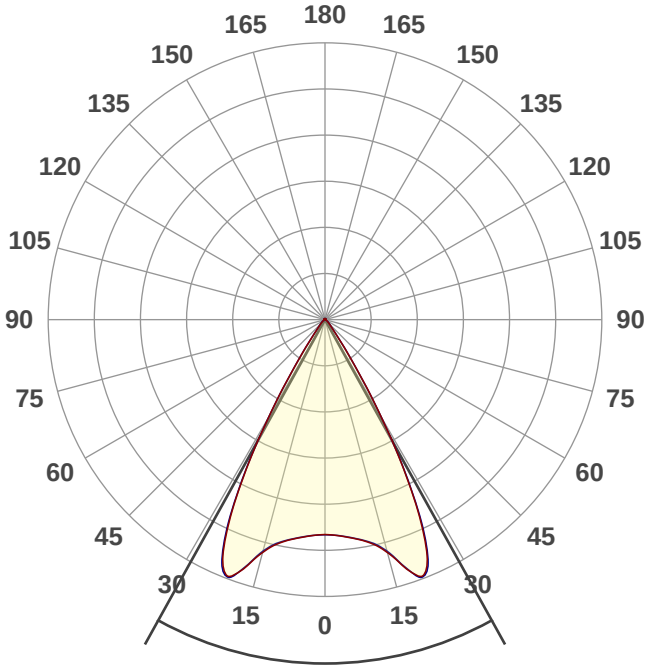
Conditions

AC Supply: 121 V, 60 Hz
Power: 104.8 W
Current: 0.866 A
Power Factor: 0.99

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 10/31/2019 to LM-63-2002 Standards.

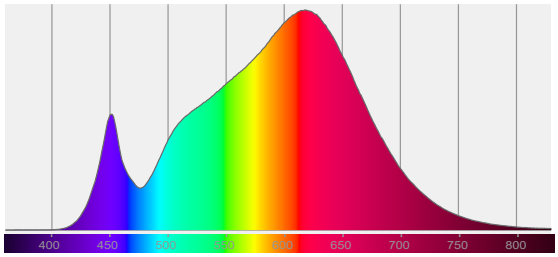
Overall Measurement

Angular Beam Distribution

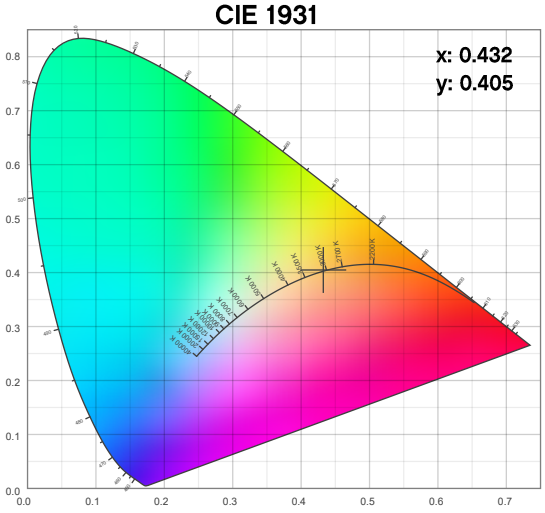


Beam Angle 58°

Spectral Distribution



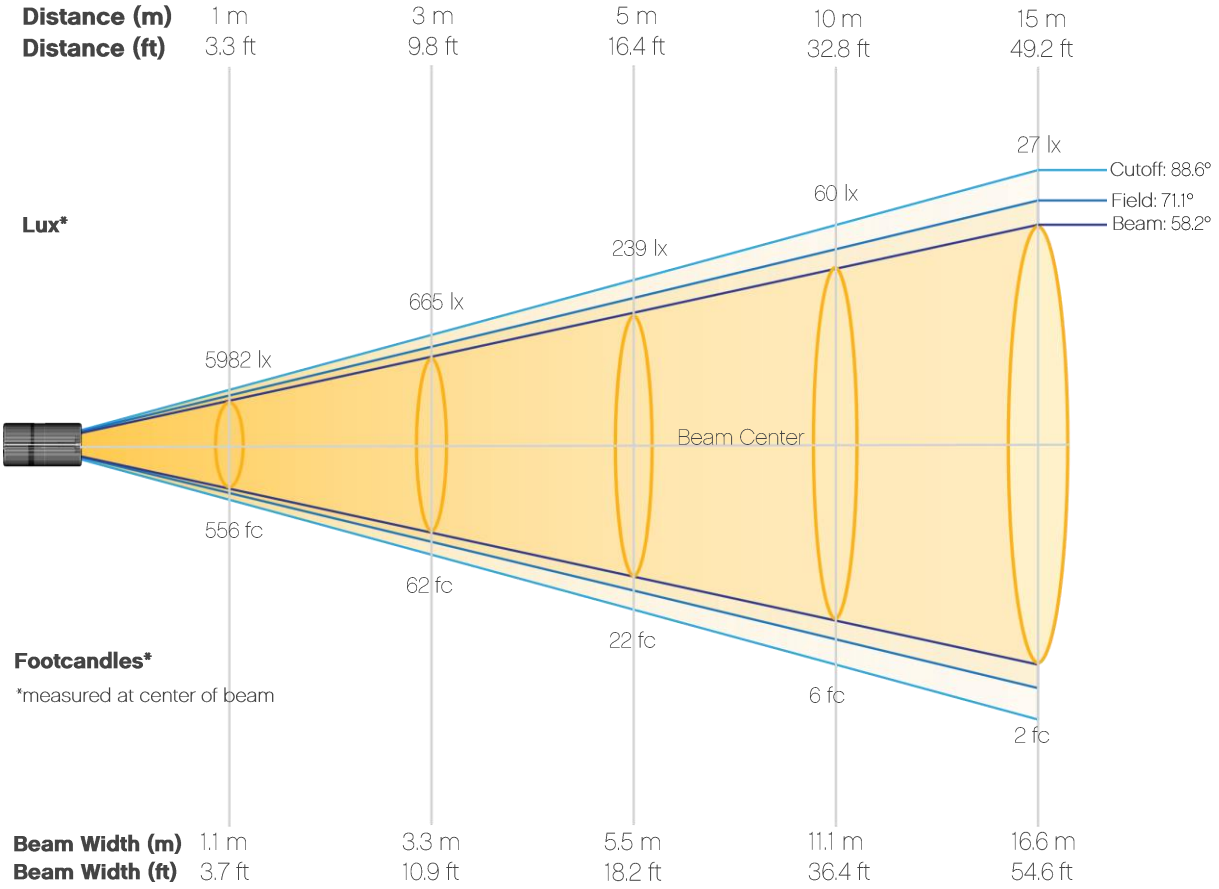
CIE 1931



Photometric Report

Ovation FD-105WW: Full Flood, Full Power

Beam Details



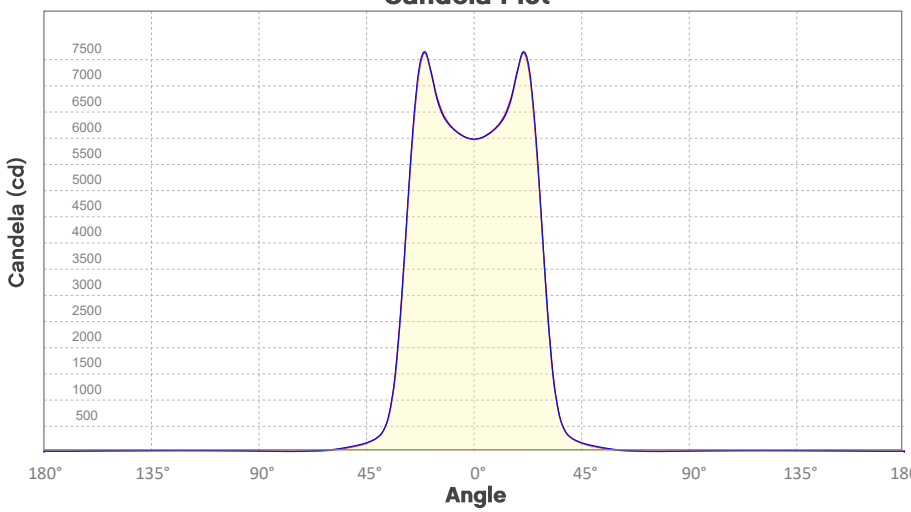
Beam Illuminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	5982	1496	665	374	239	166	122	93	74	60
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	49	42	35	31	27	23	21	18	17	15
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	556	139	62	35	22	15	11	9	7	6
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	5	4	3	3	2	2	2	2	2	1

Photometric Report

Ovation FD-105WW: Full Flood, Full Power

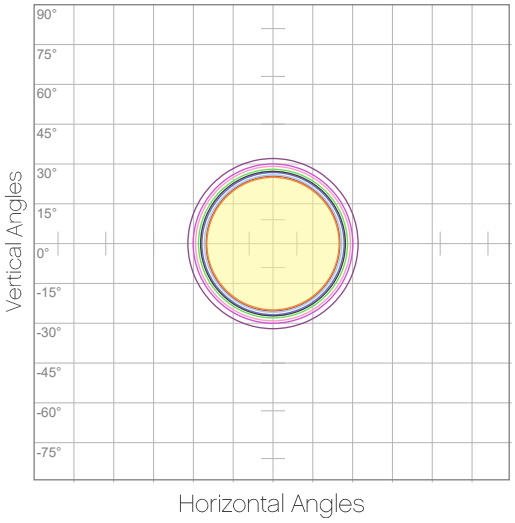
Candela Plot



Beam Angle (50%): 58°
Field Angle (10%): 71°
Cutoff Angle (3%): 89.4°

Horizontal Distribution
Vertical Distribution

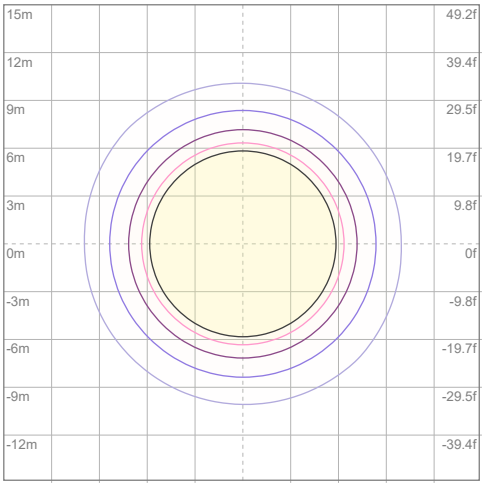
Polar Diagrams



iso-candela Diagram

10%	598 cd
20%	1196 cd
30%	1795 cd
40%	2393 cd
50%	2991 cd
60%	3589 cd
70%	4188 cd
80%	4786 cd
90%	5384 cd

Conditions:
Number of c-planes: 8
Candela at center: 5982 cd



iso-illuminance Diagram

3%	1.79 lx
5%	2.99 lx
10%	5.98 lx
30%	17.9 lx
50%	29.9 lx

Conditions:
Number of c-planes: 8
Lux at center: 59.8 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 FD-105WW: 50% Zoom, Full Power

Report Summary

Output

Total Lumens: 5343 lm
Peak Intensity: 35941 cd
Illuminance @ 5m: 1416 lux
Fixture Efficacy: 52 lm/W

Optical

Horizontal Beam Angle (50%): 22.3°
Vertical Beam Angle (50%): 22.2°
Horizontal Field Angle (10%): 31.5°
Vertical Field Angle (10%): 31.3°
Horizontal Cutoff Angle (3%): 37.3°
Vertical Cutoff Angle (3%): 36.6°

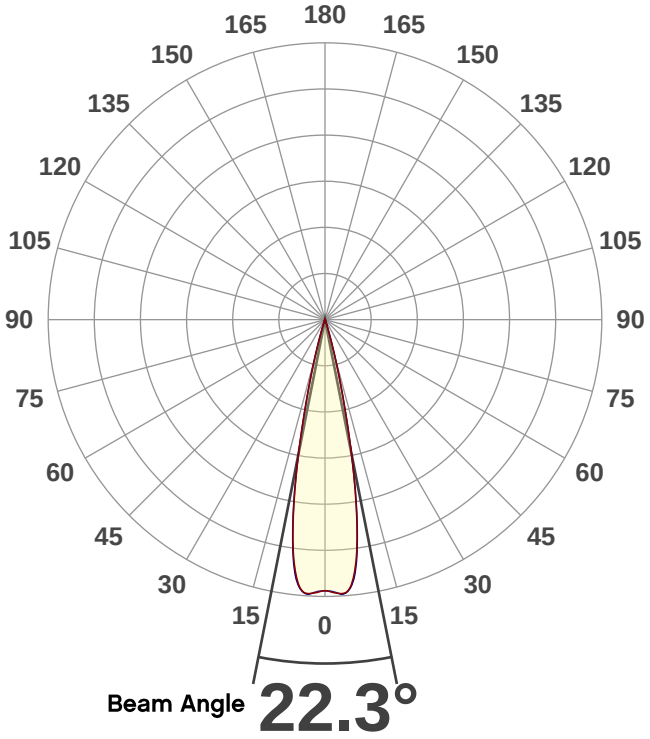
Conditions

AC Supply: 121 V, 60.1 Hz
Power: 103.92 W
Current: 0.860 A
Power Factor: 0.99

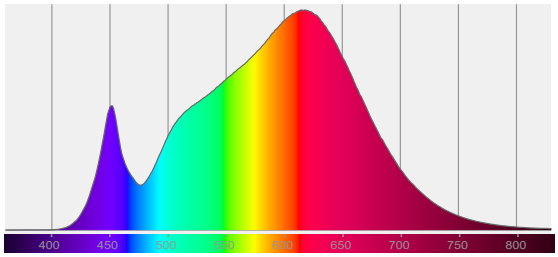
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 10/31/2019 to LM-63-2002 Standards.

Overall Measurement

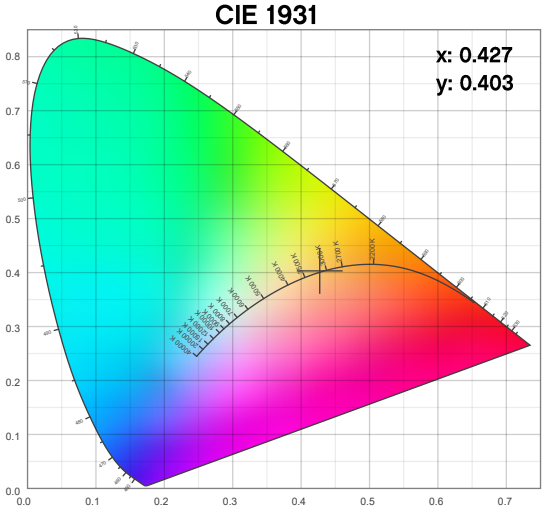
Angular Beam Distribution



Spectral Distribution



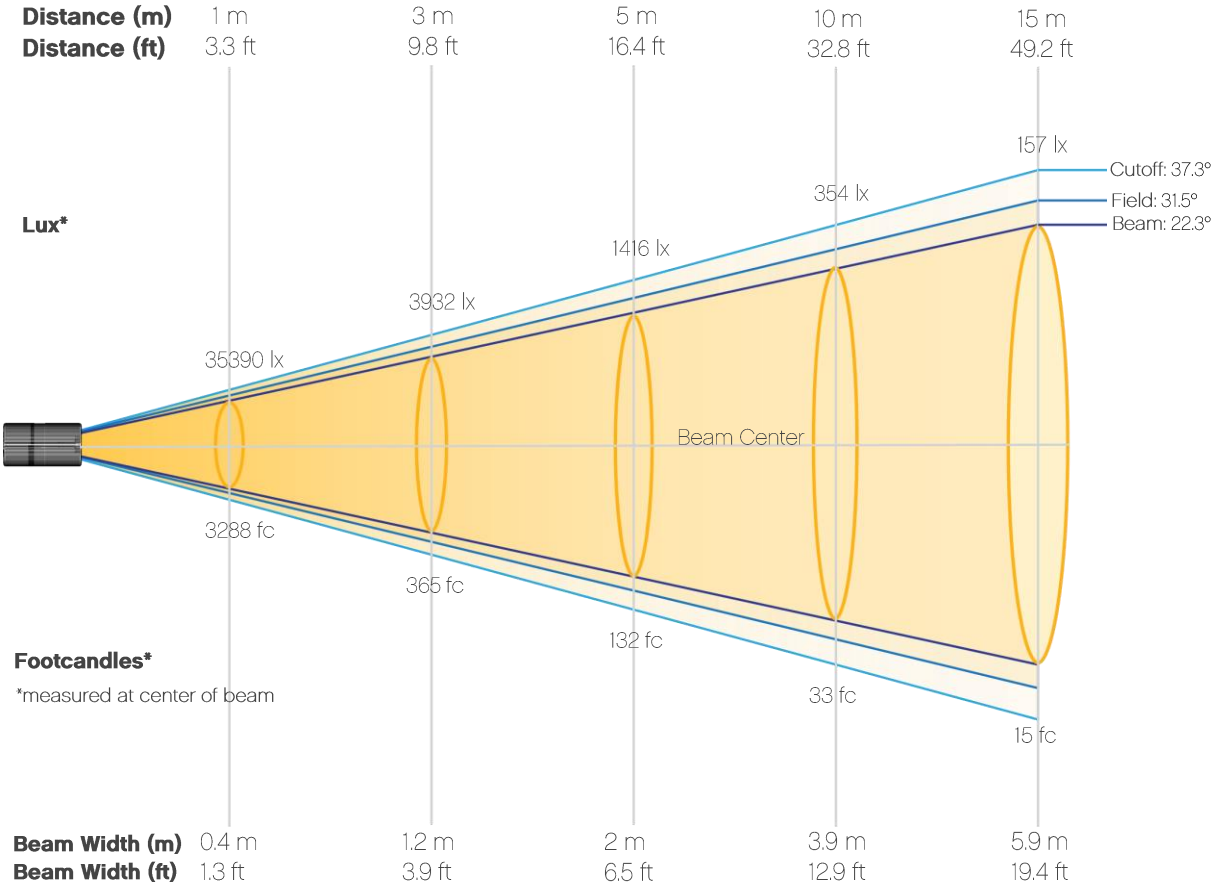
CIE 1931



Photometric Report

Ovation FD-105WW: 50% Zoom, 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	35390	8848	3932	2212	1416	983	722	553	437	354
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	292	246	209	181	157	138	122	109	98	88
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	3288	822	365	205	132	91	67	51	41	33
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	27	23	19	17	15	13	11	10	9	8

Photometric Report

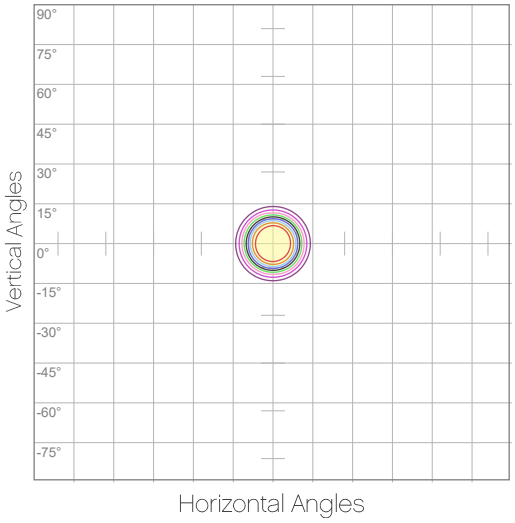
Ovation FD-105WW: 50% Zoom, Full Power

Candela Plot

Beam Angle (50%): 22.3°
Field Angle (10%): 31.5°
Cutoff Angle (3%): 37°

Horizontal Distribution
Vertical Distribution

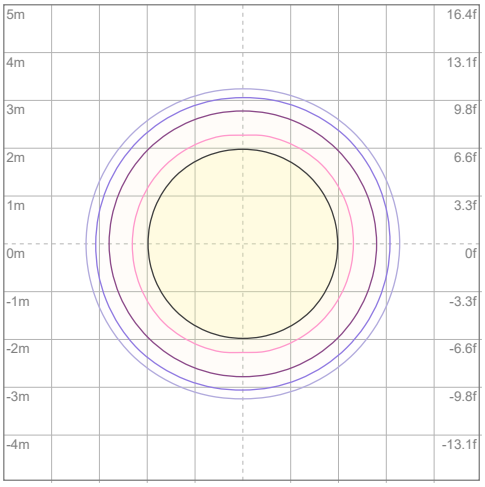
Polar Diagrams



iso-candela Diagram

10%	3539 cd
20%	7078 cd
30%	10617 cd
40%	14156 cd
50%	17695 cd
60%	21234 cd
70%	24773 cd
80%	28312 cd
90%	31851 cd

Conditions:
Number of c-planes: 8
Candela at center: 35390 cd



iso-illuminance Diagram

3%	10.6 lx
5%	17.7 lx
10%	35.4 lx
30%	106 lx
50%	177 lx

Conditions:
Number of c-planes: 8
Lux at center: 354 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 FD-105WW: Full Spot, Full Power

Report Summary

Output

Total Lumens: 2873 lm
Peak Intensity: 104328 cd
Illuminance @ 5m: 4168 lux
Fixture Efficacy: 27 lm/W

Optical

Horizontal Beam Angle (50%): 8.4°
Vertical Beam Angle (50%): 8.2°
Horizontal Field Angle (10%): 15.6°
Vertical Field Angle (10%): 15.1°
Horizontal Cutoff Angle (3%): 20.6°
Vertical Cutoff Angle (3%): 20.1°

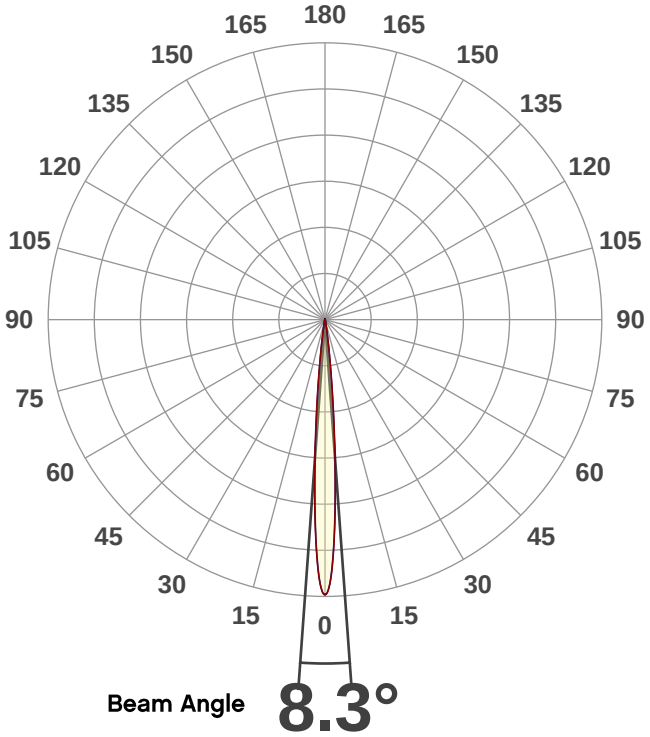
Conditions

AC Supply: 121 V, 60 Hz
Power: 106.2 W
Current: 0.878 A
Power Factor: 0.99

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 10/31/2019 to LM-63-2002 Standards.

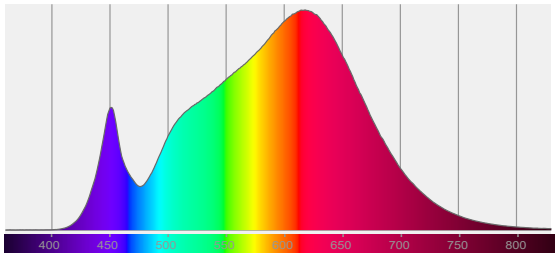
Overall Measurement

Angular Beam Distribution

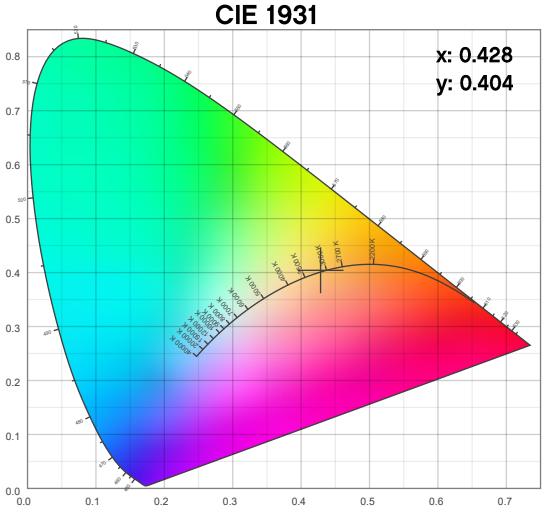


Beam Angle 8.3°

Spectral Distribution



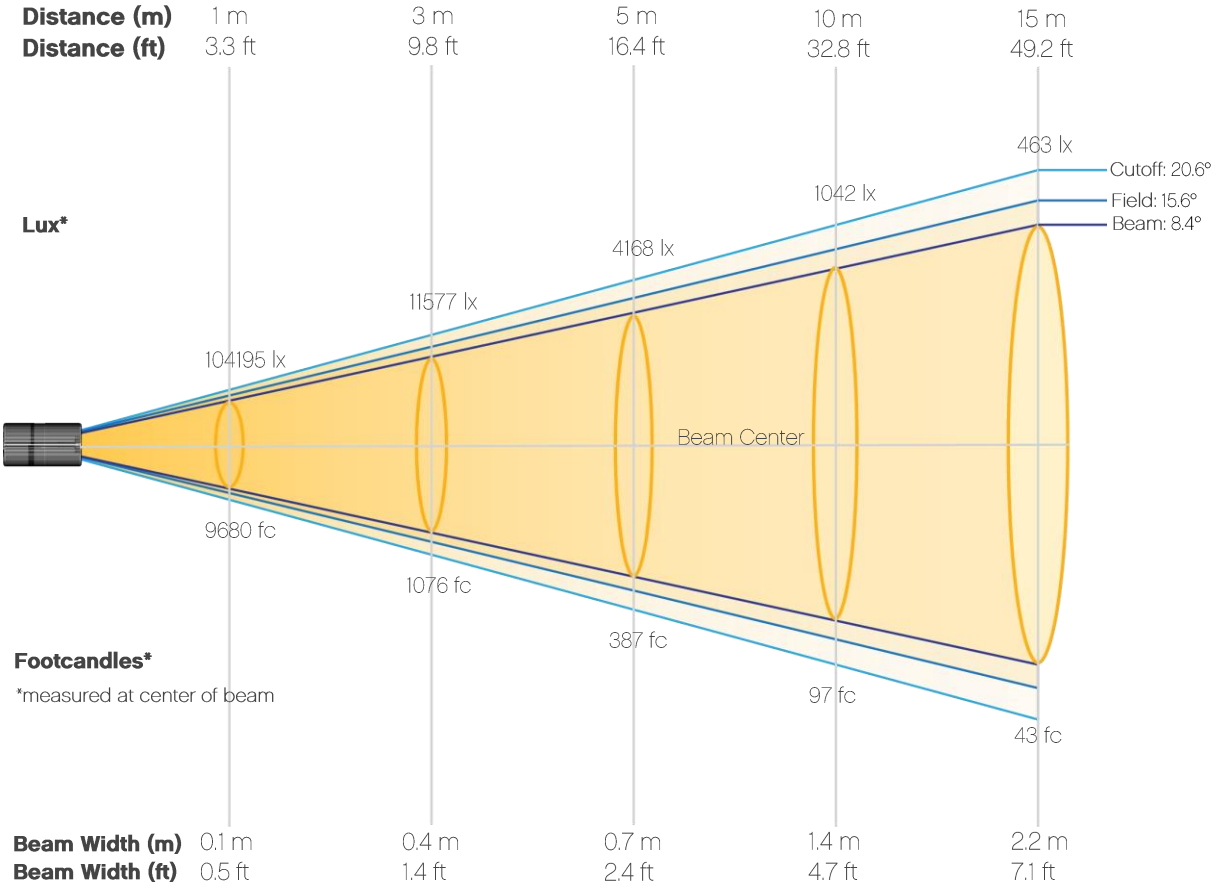
CIE 1931



Photometric Report

Ovation FD-105WW: Full Spot, Full Power

Beam Details



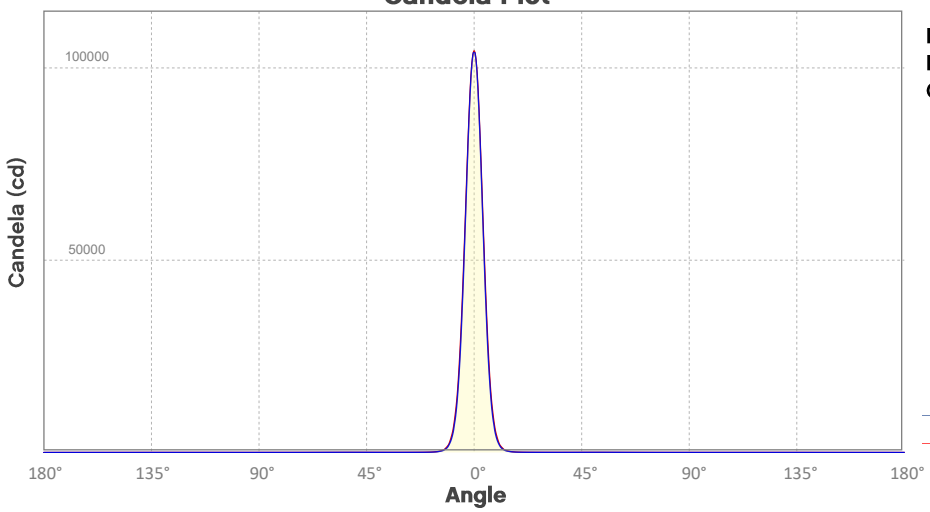
Beam Illuminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	104195	26049	11577	6512	4168	2894	2126	1628	1286	1042
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	861	724	617	532	463	407	361	322	289	260
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	9680	2420	1076	605	387	269	198	151	120	97
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	80	67	57	49	43	38	33	30	27	24

Photometric Report

Ovation FD-105WW: Full Spot, Full Power

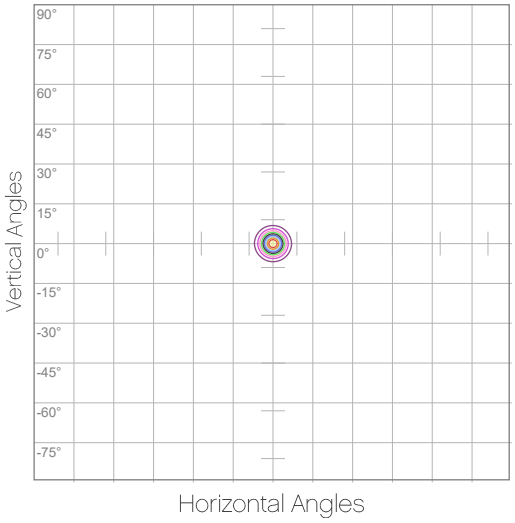
Candela Plot



Beam Angle (50%): 8.3°
Field Angle (10%): 15.3°
Cutoff Angle (3%): 20.2°

Horizontal Distribution
Vertical Distribution

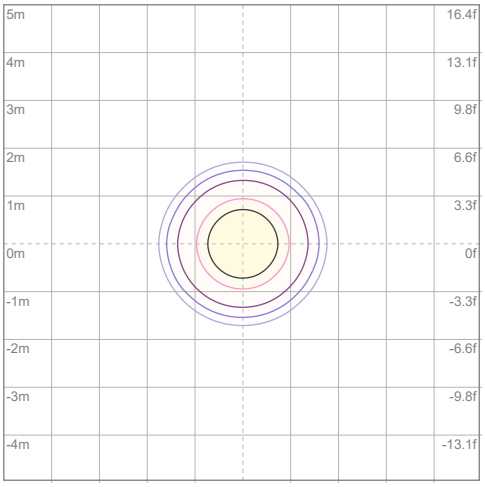
Polar Diagrams



iso-candela Diagram

10%	10419 cd
20%	20839 cd
30%	31258 cd
40%	41678 cd
50%	52097 cd
60%	62517 cd
70%	72936 cd
80%	83356 cd
90%	93775 cd

Conditions:
Number of c-planes: 8
Candela at center: 104195 cd



iso-illuminance Diagram

3%	31.3 lx
5%	52.1 lx
10%	104 lx
30%	313 lx
50%	521 lx

Conditions:
Number of c-planes: 8
Lux at center: 1042 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 FD-105WW: Full Power

Report Summary

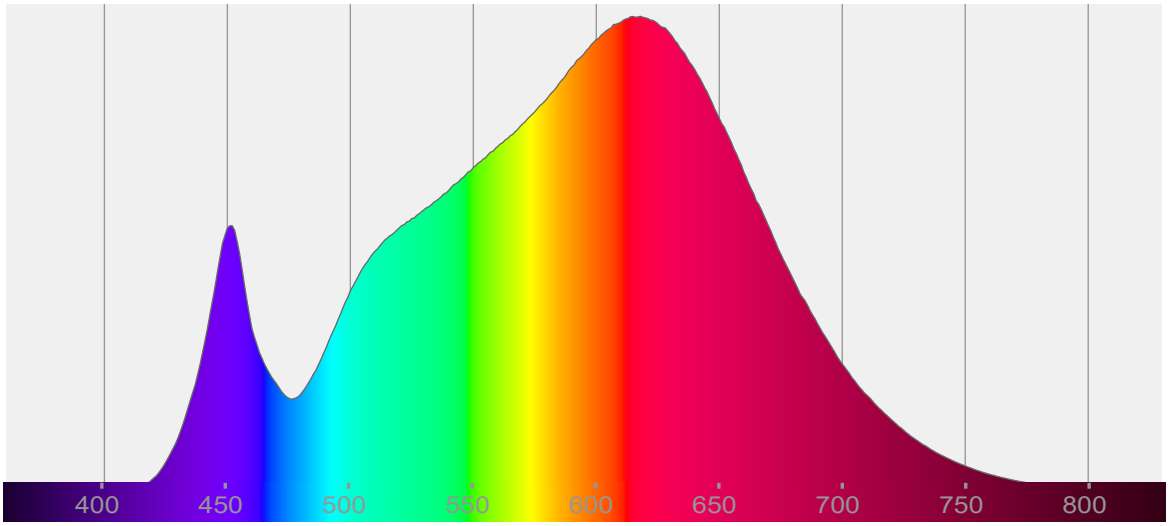
Measurements

Total Lumens: 5343 lm
Peak Intensity: 35941 cd
Fixture Efficacy: 52 lm/W

Correlated Color Temperature: 3166K
Δuv: 0.0011

CRI: 91.4 CRI R9 Value: 52.6
CQS: 90.3
TLCI: 89
TM-30-18 Rf: 91.5
TM-30-18 Rg: 99.6
1st Dominant Wavelength: 618 nM
2nd Dominant Wavelength: 452 nM

Spectral Distribution



Tested Color

3166 K
CIE 1931 Coordinates:
X: 0.427 Y: 0.403

Color Temperature

3166 K

Light Quality

CRI: 91.4

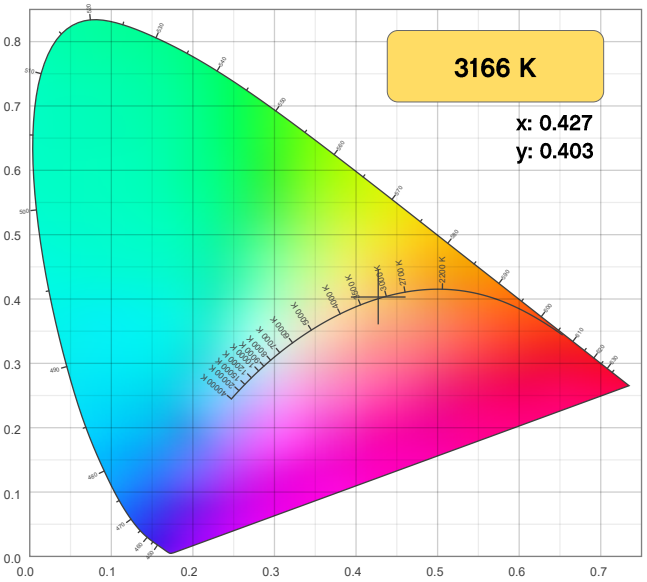
Notes:

Chromaticity Report

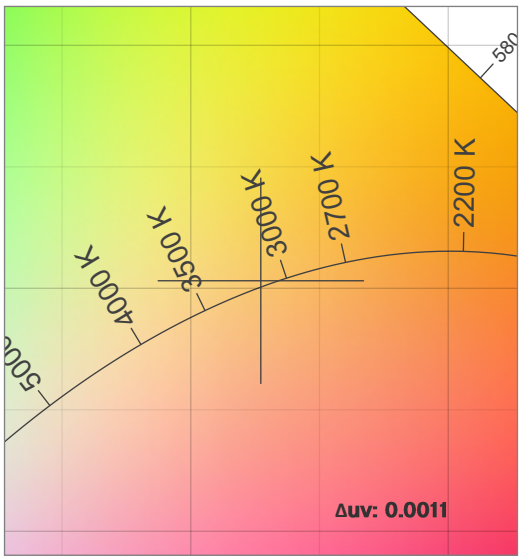
Ovation FD-105WW: Full Power

Chromaticity

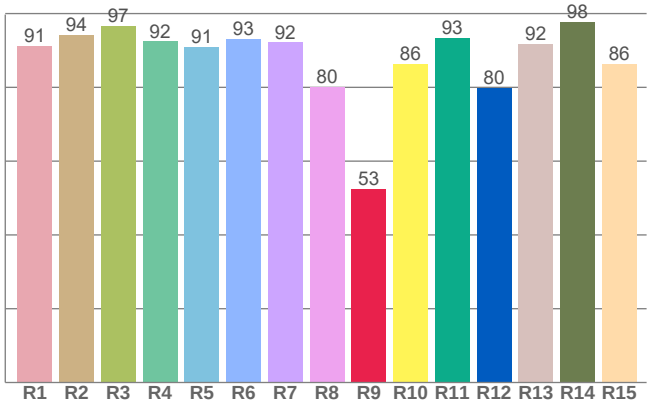
CIE 1931



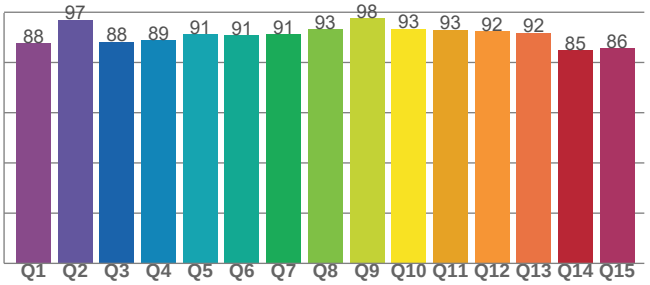
CIE 1931 - Zoom



CRI: 91.4 (R1-R8)



CQS: 90.3



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3166 K	0.427	0.403

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0011	0.403	0.245

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
91.4	52.6	90.3

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
89	91.5	99.6

Chromaticity Report

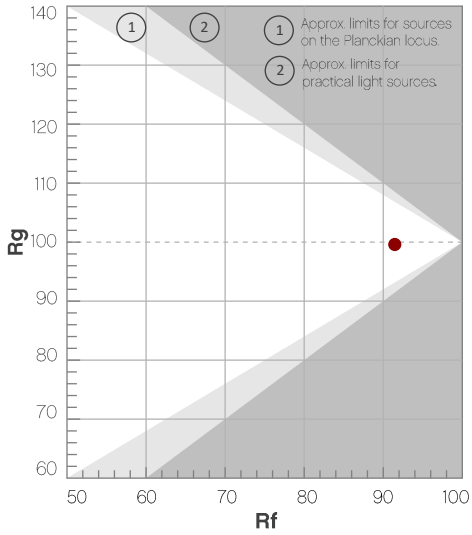
Ovation FD-105WW: Full Power

TM-30-18 Details

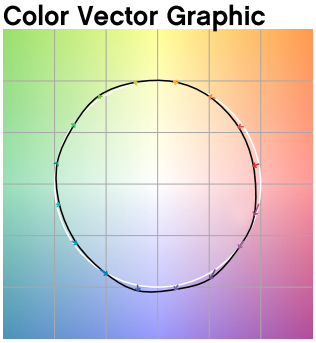
Rf 91.5
Fidelity Index (Rg)

Rg 99.6
Gamut Index (Rg)

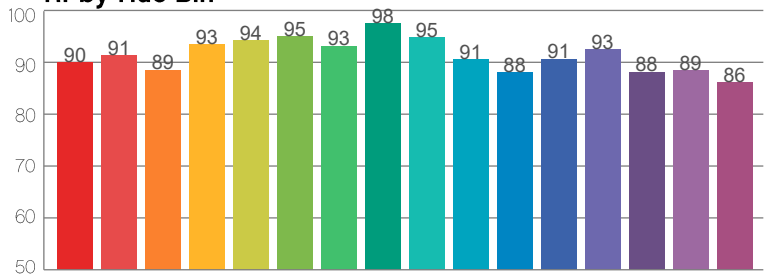
Hue Bin	R_f	Chroma Shift	Hue Shift
1	90	-6%	-1%
2	91	-4%	3%
3	89	-2%	6%
4	93	0%	4%
5	94	1%	3%
6	95	3%	0%
7	93	-1%	-4%
8	98	0%	-1%
9	95	-3%	1%
10	91	-3%	5%
11	88	0%	8%
12	91	5%	2%
13	93	4%	-4%
14	88	5%	-8%
15	89	0%	-8%
16	86	-2%	-11%



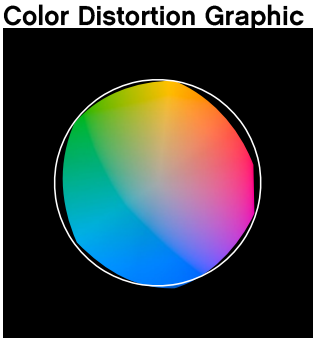
Color Vector Graphic



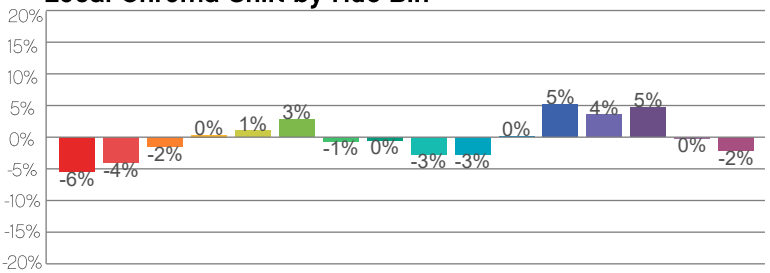
Rf by Hue Bin



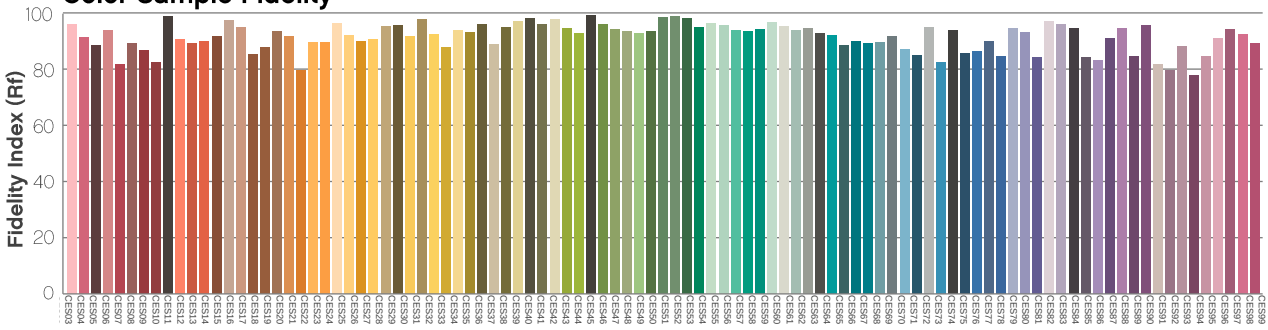
Color Distortion Graphic



Local Chroma Shift by Hue Bin



Color Sample Fidelity



Contact Us

General Information	Technical Support
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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.