

PHOTOMETRICS REPORT

OVATION

F-145WW



Table of Contents

1. Testing Process	1
2. Photometric Reports	2
Full Flood – Full Power	2
Report Summary	2
Overall Measurement	2
Beam Details	3
Polar Diagrams	4
Full Spot – Full Power	5
Report Summary	5
Overall Measurement	5
Beam Details	6
Polar Diagrams	7
50% Zoom – Full Power	8
Report Summary	8
Overall Measurement	8
Beam Details	9
Polar Diagrams	10
3. Chromaticity Reports	11
Full Power	11
Report Summary	11
Chromaticity	12
TM-30-18 Details	13
4. Contact Us	14

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-145WW: Full Flood, Full Power

Report Summary

Output

Total Lumens: 4315 lm
Peak Intensity: 4829 cd
Illuminance @ 5m: 184 lux
Fixture Efficacy: 59 lm/W

Optical

Horizontal Beam Angle (50%): 56.4°
Vertical Beam Angle (50%): 56.4°
Horizontal Field Angle (10%): 77.8°
Vertical Field Angle (10%): 77°
Horizontal Cutoff Angle (3%): 101.8°
Vertical Cutoff Angle (3%): 101.4°

Conditions

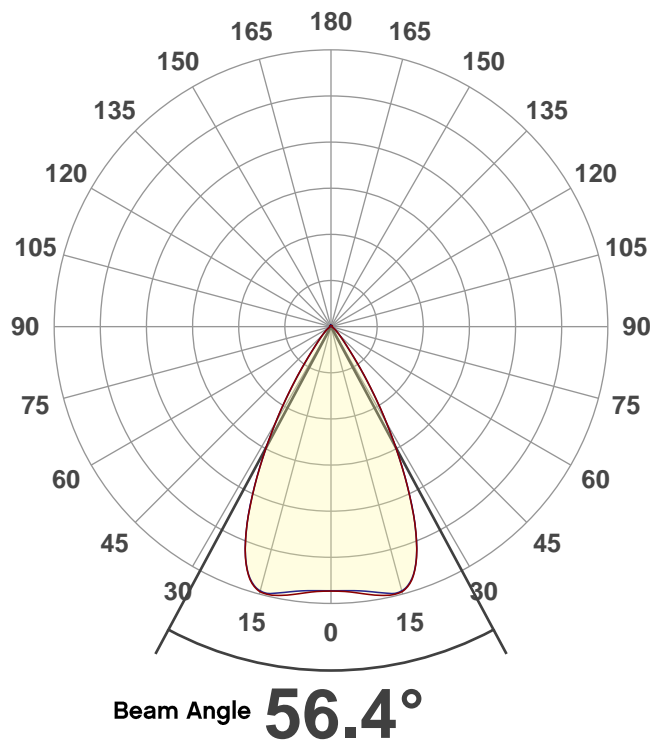
AC Supply: 121 V, 60 Hz
Power: 73.96 W
Current: 0.613 A
Power Factor: 1.0



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 10/30/2019 to LM-63-2002 Standards.

Overall Measurement

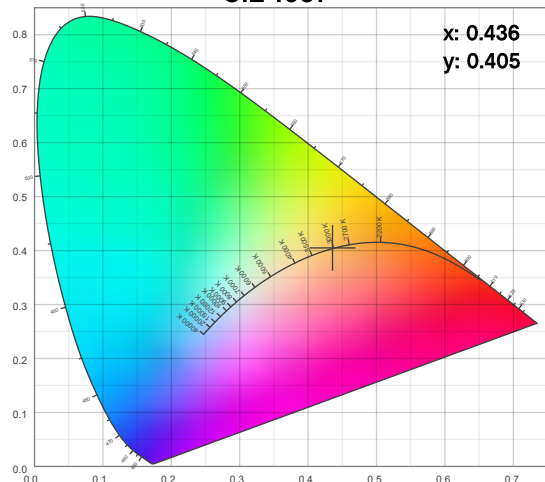
Angular Beam Distribution



Spectral Distribution



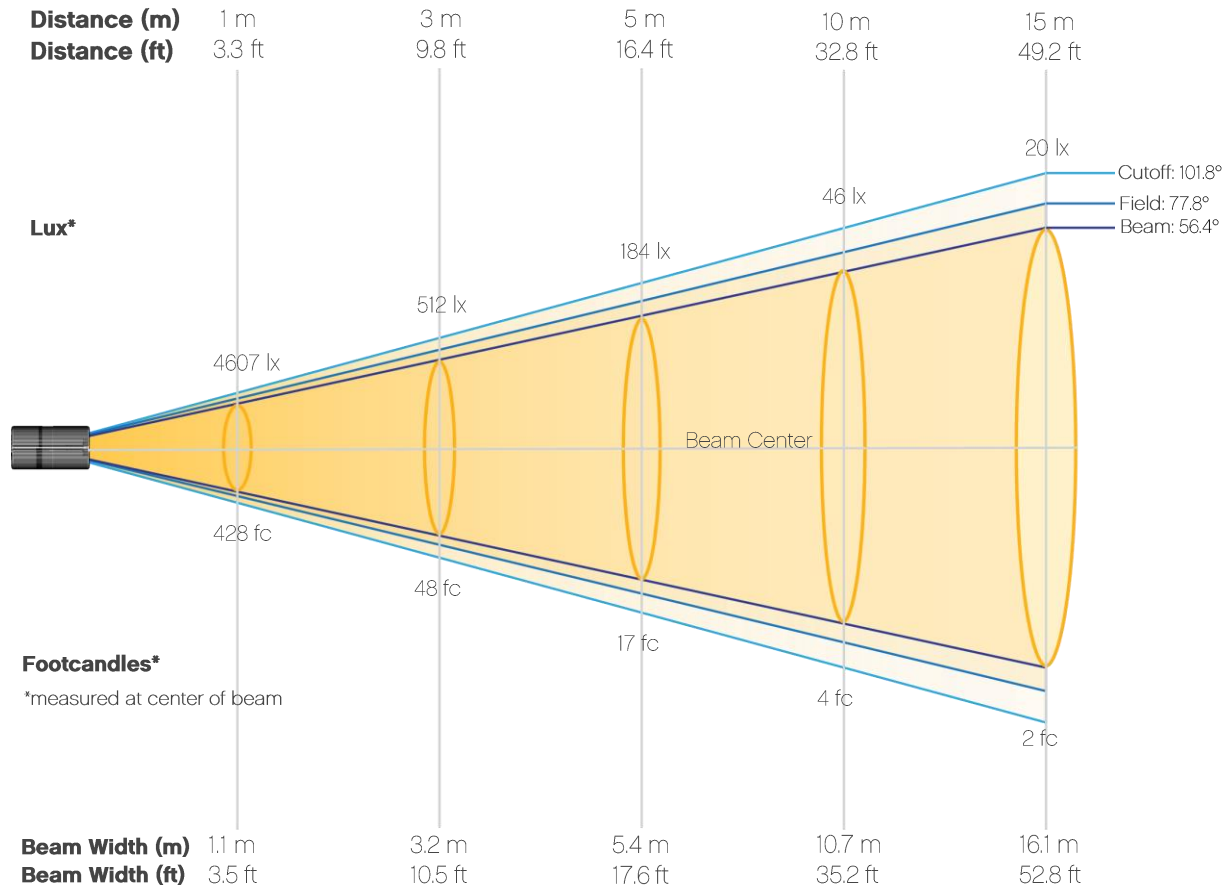
CIE 1931



Photometric Report

Ovation F-145WW: Full Flood, Full Power

Beam Details



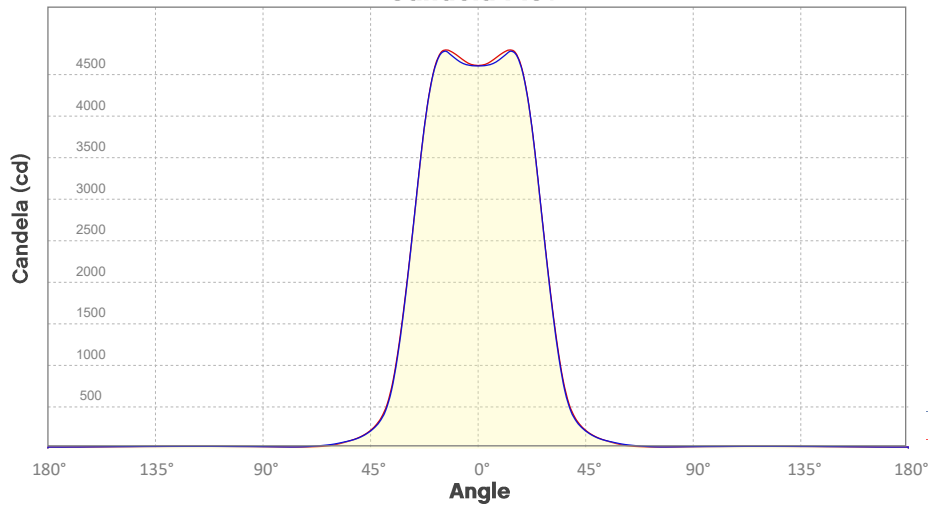
Beam Illuminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	4607	1152	512	288	184	128	94	72	57	46
Distance	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
Lux	38	32	27	24	20	18	16	14	13	12
Distance	3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft
FC	428	107	48	27	17	12	9	7	5	4
Distance	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
FC	4	3	3	2	2	2	1	1	1	1

Photometric Report

Ovation F-145WW: Full Flood, Full Power

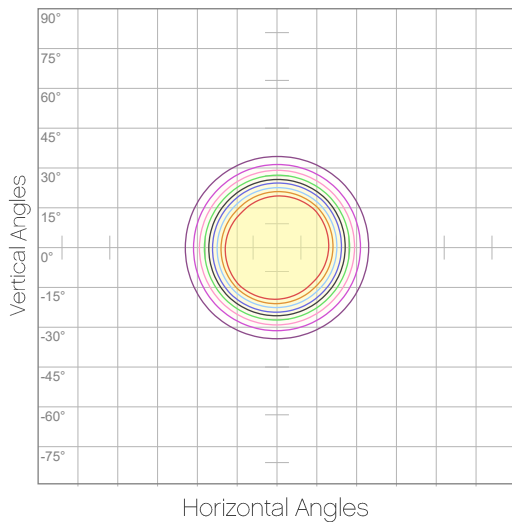
Candela Plot



Beam Angle (50%): 56.4°
Field Angle (10%): 77.5°
Cutoff Angle (3%): 102.4°

— Horizontal Distribution
— Vertical Distribution

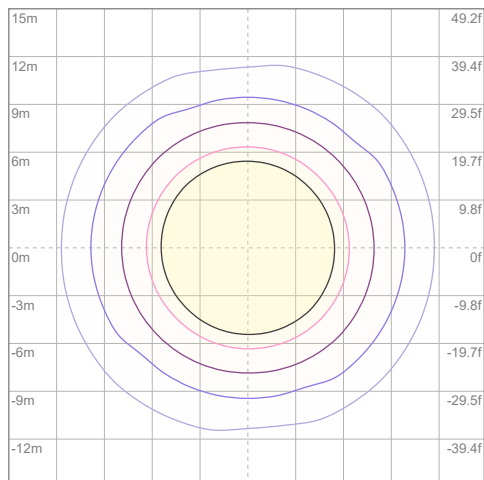
Polar Diagrams



iso-candela Diagram

10%	461 cd
20%	921 cd
30%	1382 cd
40%	1843 cd
50%	2304 cd
60%	2764 cd
70%	3225 cd
80%	3686 cd
90%	4146 cd

Conditions:
Number of c-planes: 8
Candela at center: 4607 cd



iso-illuminance Diagram

3%	1.38 lx
5%	2.30 lx
10%	4.61 lx
30%	13.8 lx
50%	23.0 lx

Conditions:
Number of c-planes: 8
Lux at center: 46.1 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-145WW: Full Spot, Full Power

Report Summary

Output

Total Lumens: 2789 lm
Peak Intensity: 25263 cd
Illuminance @ 5m: 1010 lux
Fixture Efficacy: 37 lm/W

Optical

Horizontal Beam Angle (50%): 16.8°
Vertical Beam Angle (50%): 16.8°
Horizontal Field Angle (10%): 28.8°
Vertical Field Angle (10%): 28.6°
Horizontal Cutoff Angle (3%): 39.6°
Vertical Cutoff Angle (3%): 39.3°

Conditions

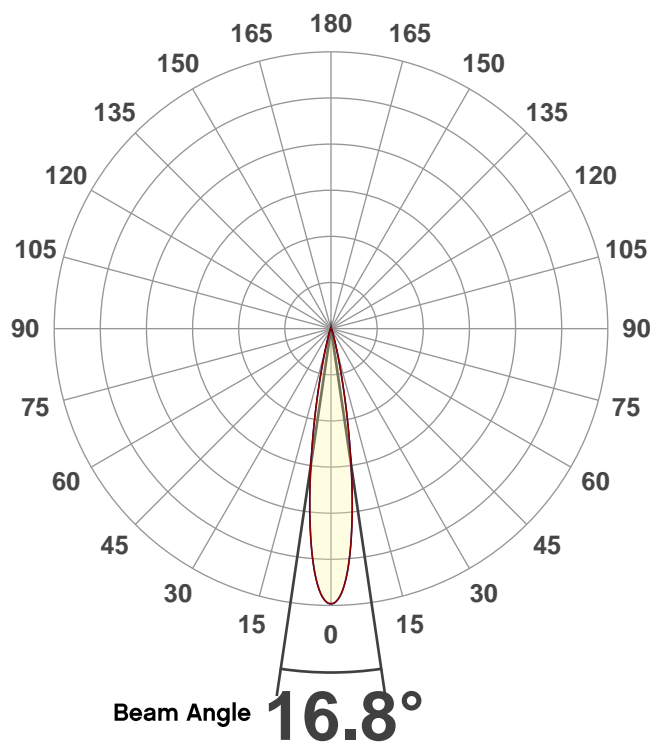
AC Supply: 121 V, 60 Hz
Power: 76.08 W
Current: 0.631 A
Power Factor: 1.0



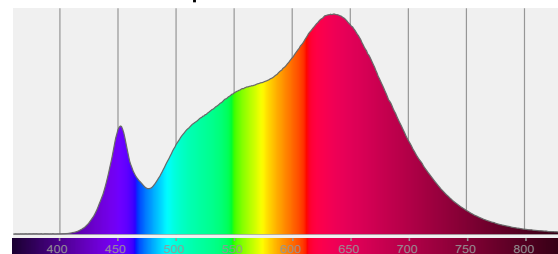
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 10/30/2019 to LM-63-2002 Standards.

Overall Measurement

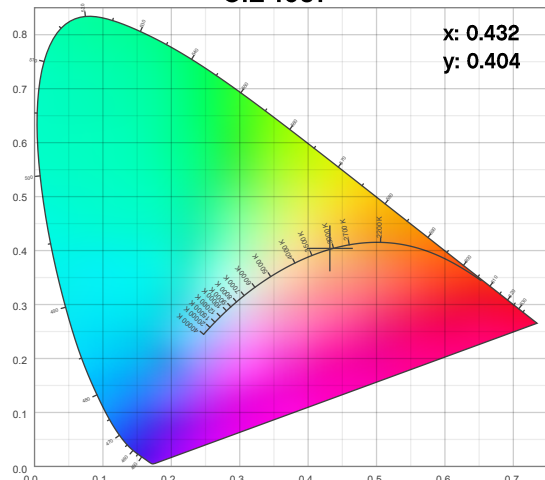
Angular Beam Distribution



Spectral Distribution



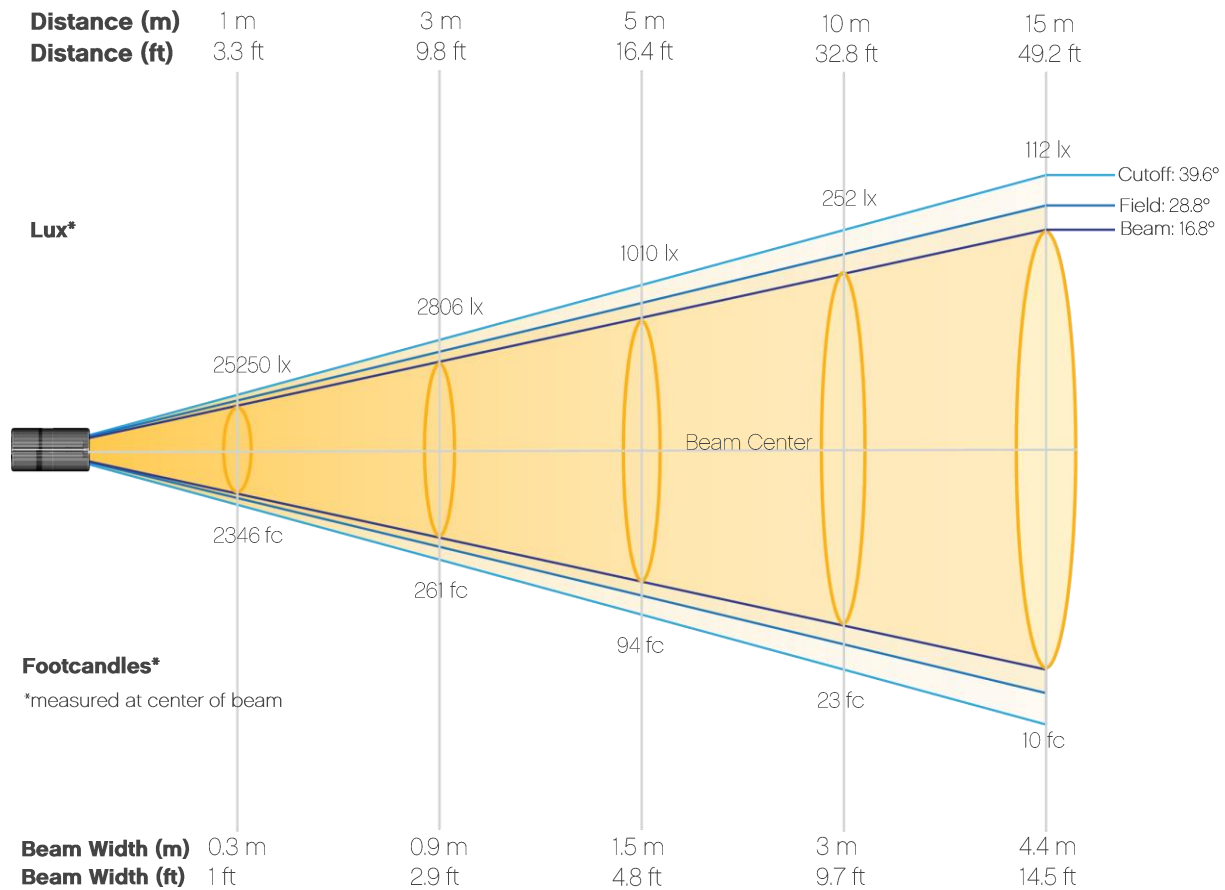
CIE 1931



Photometric Report

Ovation F-145WW: Full Spot, Full Power

Beam Details

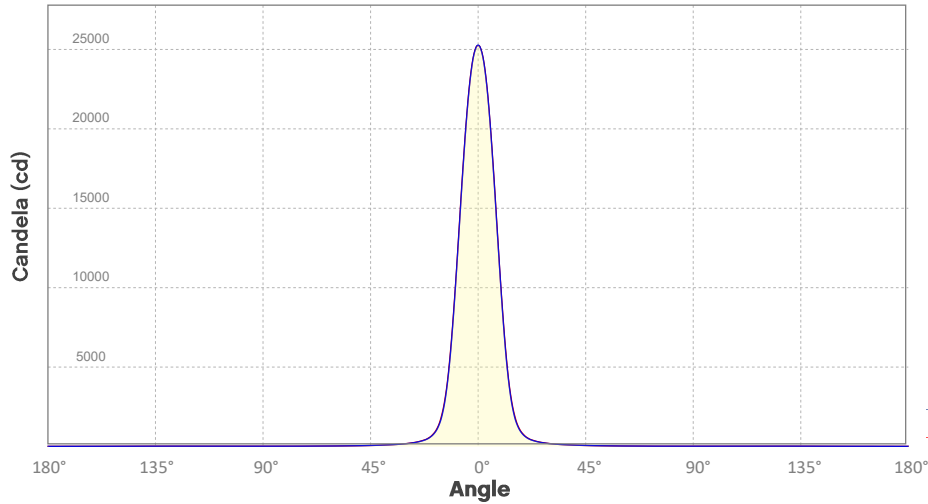


Beam Luminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	25250	6312	2806	1578	1010	701	515	395	312	252
Distance	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
Lux	209	175	149	129	112	99	87	78	70	63
Distance	3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft
FC	2346	586	261	147	94	65	48	37	29	23
Distance	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
FC	19	16	14	12	10	9	8	7	6	6

Photometric Report

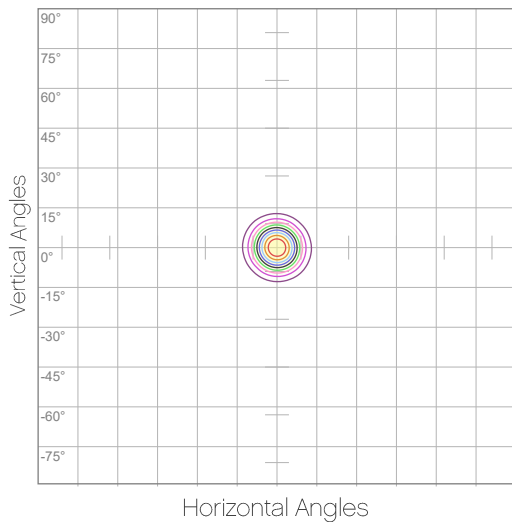
Ovation F-145WW: Full Spot, Full Power
Candela Plot



Beam Angle (50%): 16.8°
Field Angle (10%): 28.7°
Cutoff Angle (3%): 39.6°

— Horizontal Distribution
— Vertical Distribution

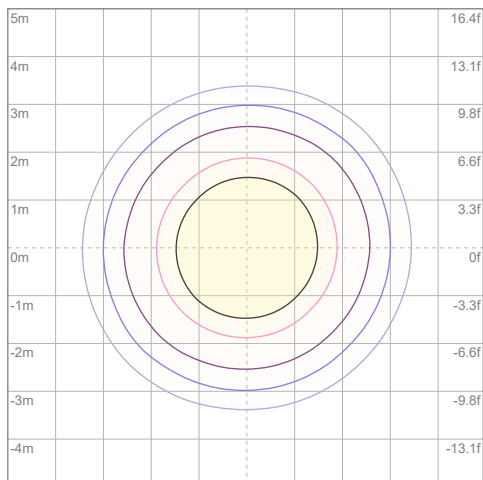
Polar Diagrams



iso-candela Diagram

10%	2525 cd
20%	5050 cd
30%	7575 cd
40%	10100 cd
50%	12625 cd
60%	15150 cd
70%	17675 cd
80%	20200 cd
90%	22725 cd

Conditions:
Number of c-planes: 8
Candela at center: 25250 cd



iso-illuminance Diagram

3%	7.57 lx
5%	12.6 lx
10%	25.2 lx
30%	75.7 lx
50%	126 lx

Conditions:
Number of c-planes: 8
Lux at center: 252 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-145WW: 50% Zoom, Full Power

Report Summary

Output

Total Lumens: 4171 lm
Peak Intensity: 13118 cd
Illuminance @ 5m: 524 lux
Fixture Efficacy: 56 lm/W

Optical

Horizontal Beam Angle (50%): 31.2°
Vertical Beam Angle (50%): 31.2°
Horizontal Field Angle (10%): 49.2°
Vertical Field Angle (10%): 49°
Horizontal Cutoff Angle (3%): 63.8°
Vertical Cutoff Angle (3%): 63.3°

Conditions

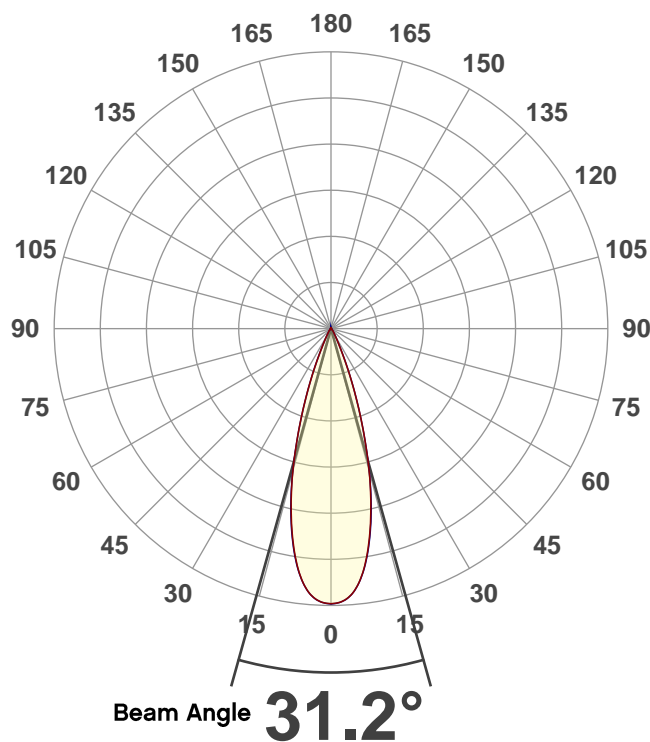
AC Supply: 120 V, 60 Hz
Power: 74.32 W
Current: 0.617 A
Power Factor: 1.0



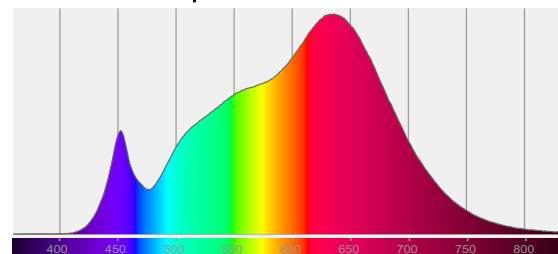
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Overall Measurement

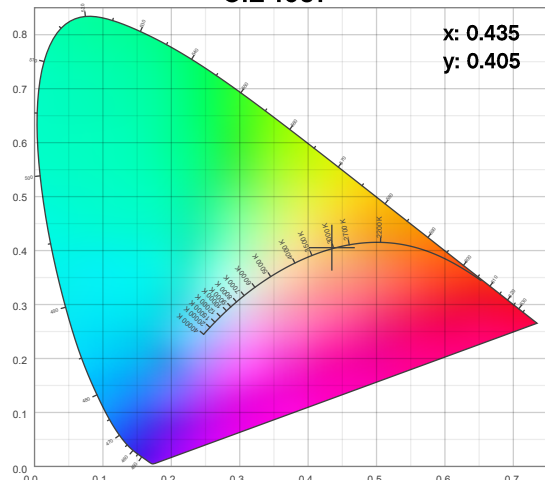
Angular Beam Distribution



Spectral Distribution



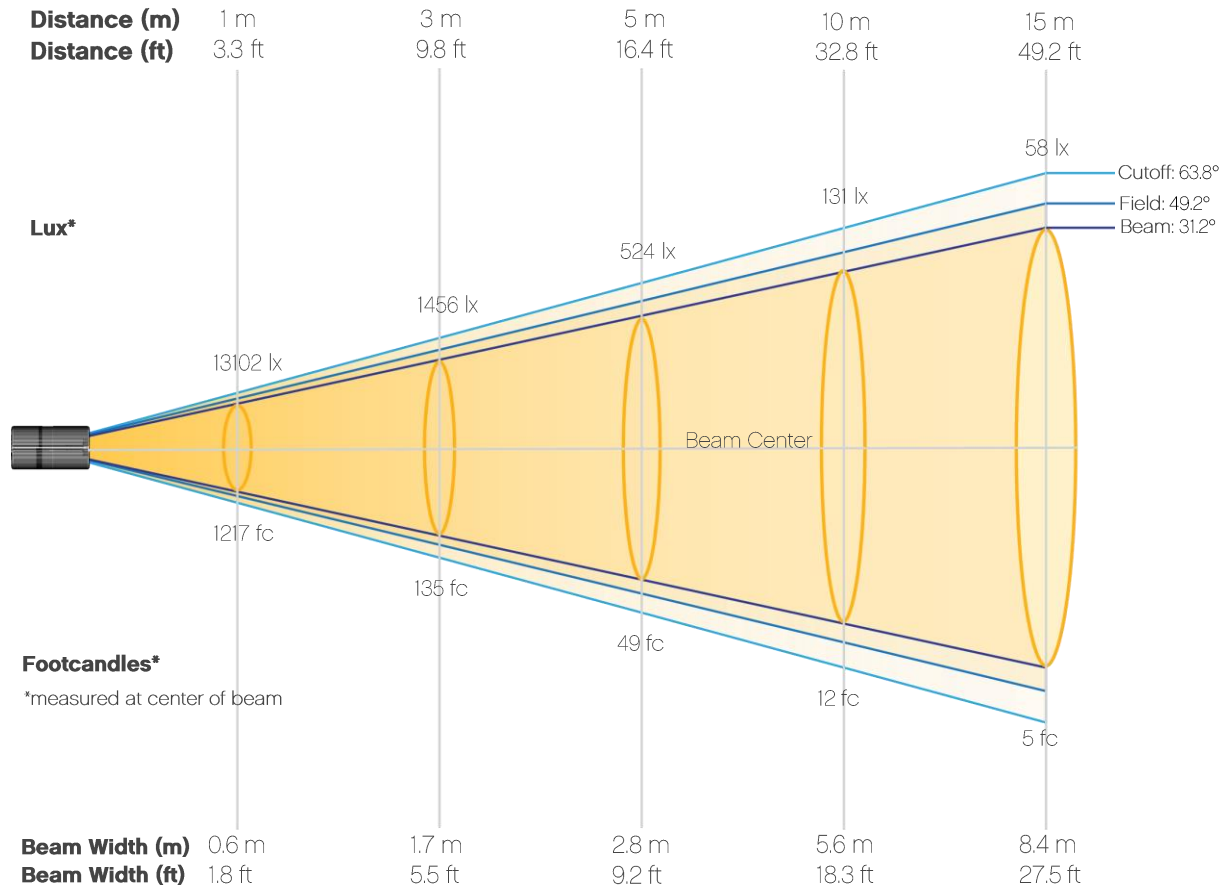
CIE 1931



Photometric Report

Ovation F-145WW: 50% Zoom, Full Power

Beam Details



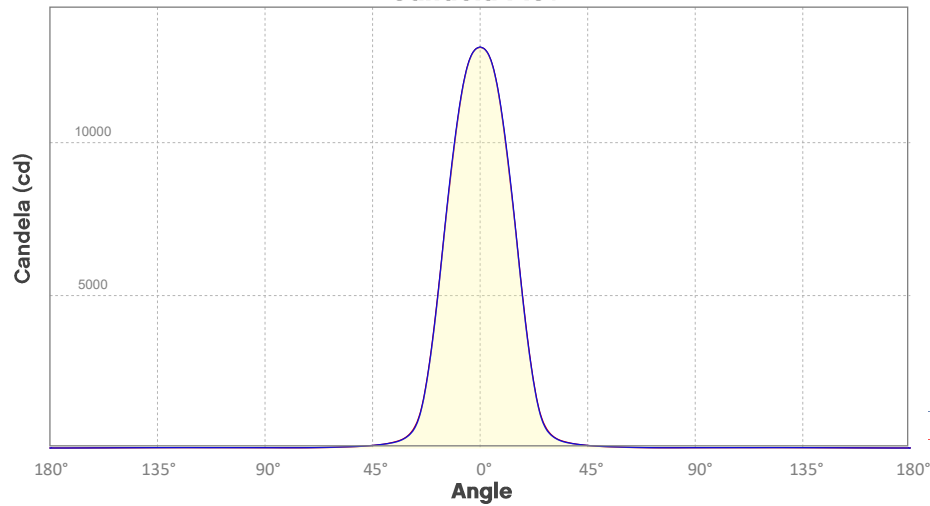
Beam Illuminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	13102	3276	1456	819	524	364	267	205	162	131
Distance	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
Lux	108	91	78	67	58	51	45	40	36	33
Distance	3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft
FC	1217	304	135	76	49	34	25	19	15	12
Distance	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
FC	10	8	7	6	5	5	4	4	3	3

Photometric Report

Ovation F-145WW: 50% Zoom, Full Power

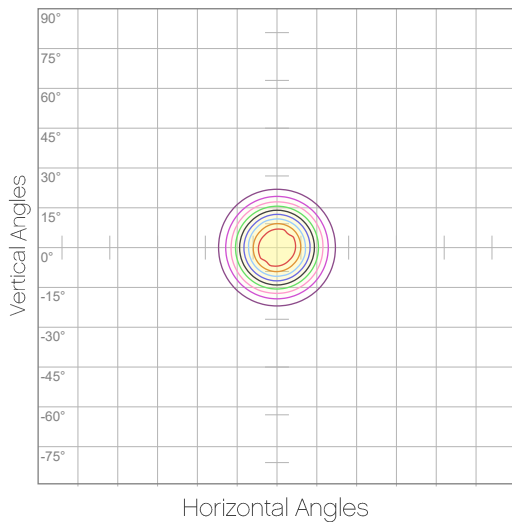
Candela Plot



Beam Angle (50%): 31.2°
Field Angle (10%): 49.3°
Cutoff Angle (3%): 64°

— Horizontal Distribution
— Vertical Distribution

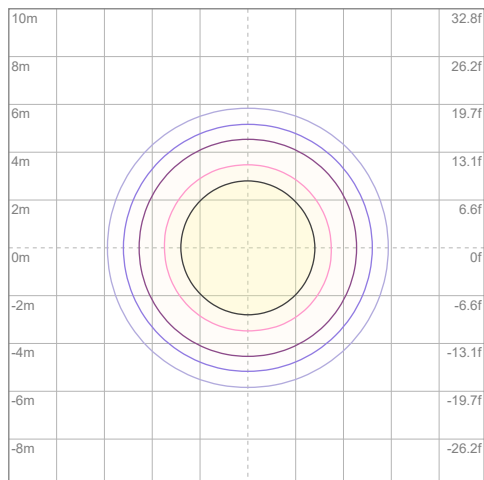
Polar Diagrams



iso-candela Diagram

10%	1310 cd
20%	2620 cd
30%	3931 cd
40%	5241 cd
50%	6551 cd
60%	7861 cd
70%	9172 cd
80%	10482 cd
90%	11792 cd

Conditions:
Number of c-planes: 8
Candela at center: 13102 cd



iso-illuminance Diagram

3%	3.93 lx
5%	6.55 lx
10%	13.1 lx
30%	39.3 lx
50%	65.5 lx

Conditions:
Number of c-planes: 8
Lux at center: 131 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-145WW: Full Power

Report Summary

Measurements

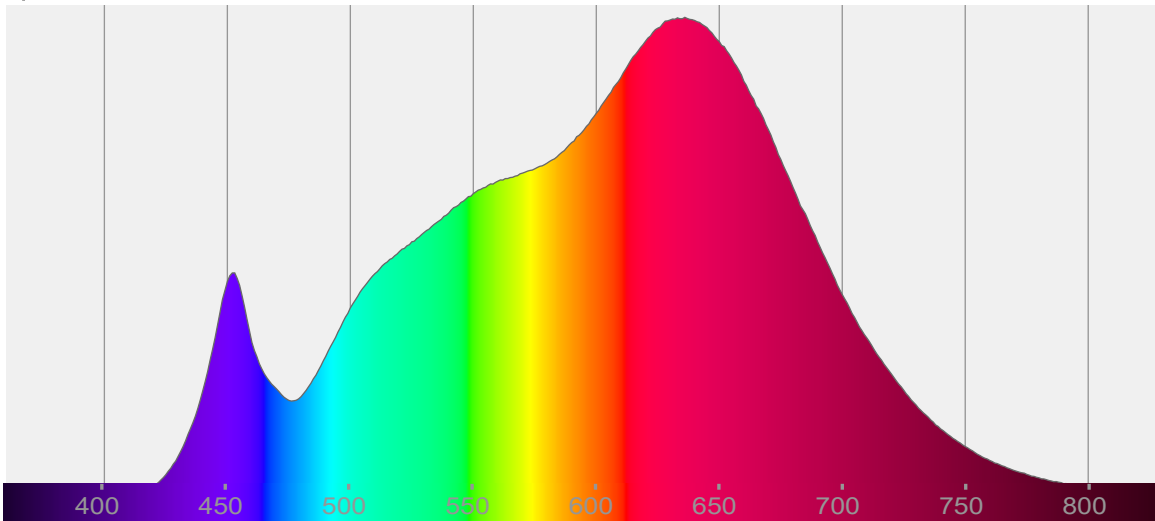
Total Lumens: 4171 lm
Peak Intensity: 13118 cd
Fixture Efficacy: 56 lm/W

Correlated Color Temperature: 3052K
 Δuv : 0.0008

CRI: 97.8 CRI R9 Value: 93.4
CQS: 95.6
TLCI: 98
TM-30-18 Rf: 95.6
TM-30-18 Rg: 101.6
1st Dominant Wavelength: 636 nm
2nd Dominant Wavelength: 453 nm



Spectral Distribution



Tested Color

3052 K
CIE 1931 Coordinates:
X: 0.435 Y: 0.405

Color Temperature

3052 K

Light Quality

CRI: 97.8

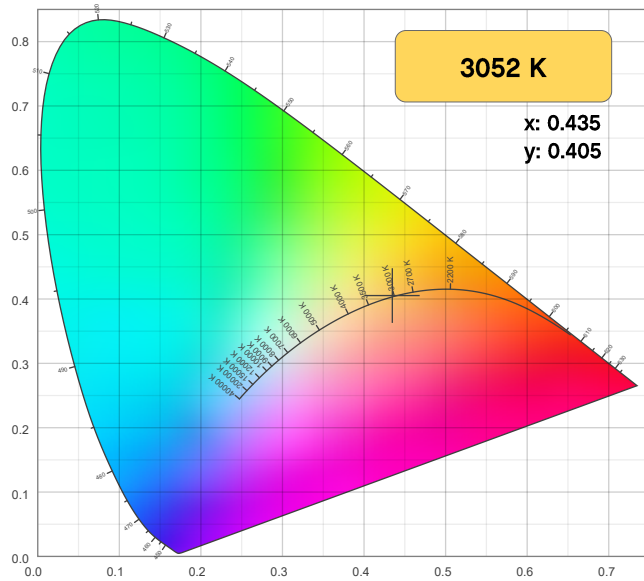
Notes:

Chromaticity Report

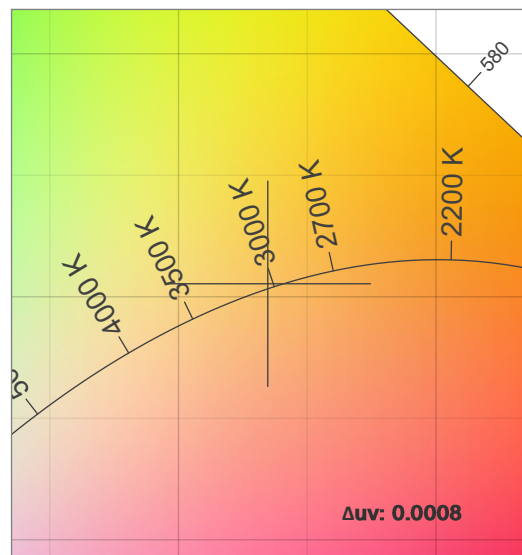
Ovation F-145WW: Full Power

Chromaticity

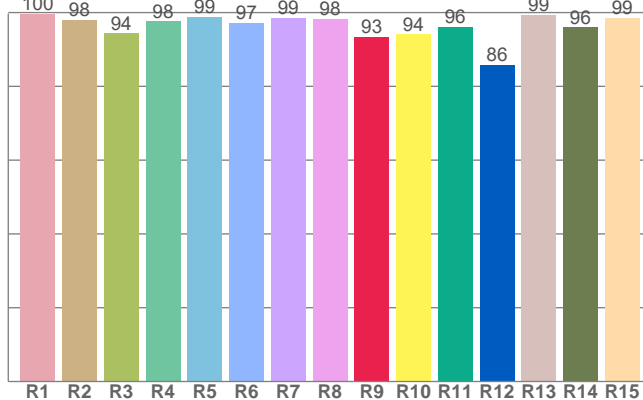
CIE 1931



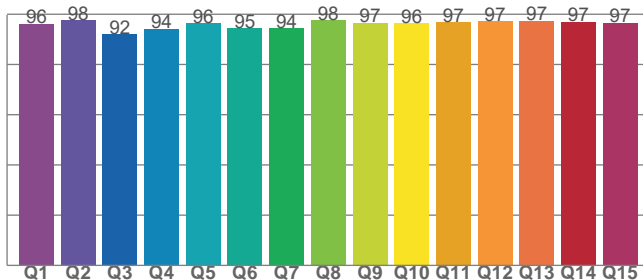
CIE 1931 - Zoom



CRI: 97.8 (R1-R8)



CQS: 95.6



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3052 K	0.435	0.405

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0008	0.405	0.249

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.8	93.4	95.6

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
98	95.6	101.6

Chromaticity Report

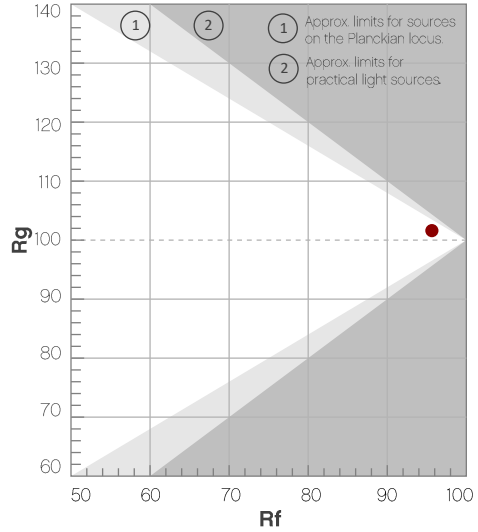
Ovation F-145WW: Full Power

TM-30-18 Details

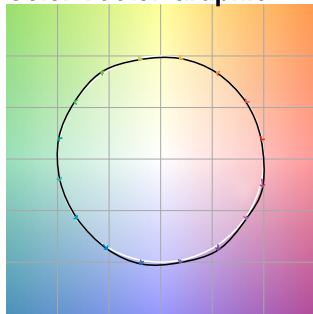
Rf 95.6
Fidelity Index (R_f)

Rg 101.6
Gamut Index (R_g)

Hue Bin	R _f	Chroma Shift	Hue Shift
1	97	-1%	-1%
2	98	-1%	0%
3	97	0%	1%
4	97	-1%	1%
5	95	-1%	2%
6	96	2%	1%
7	96	0%	0%
8	98	1%	-1%
9	97	0%	1%
10	95	-1%	3%
11	92	1%	6%
12	93	3%	2%
13	96	2%	-1%
14	94	4%	-3%
15	94	1%	-2%
16	91	2%	-7%



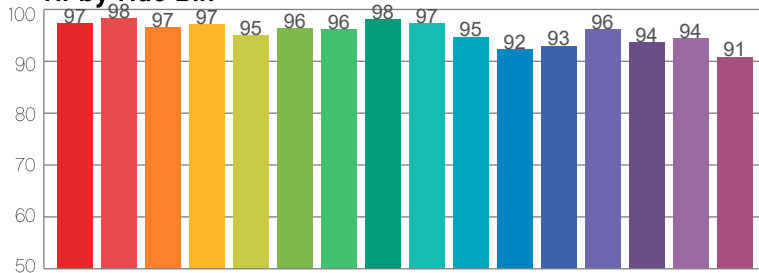
Color Vector Graphic



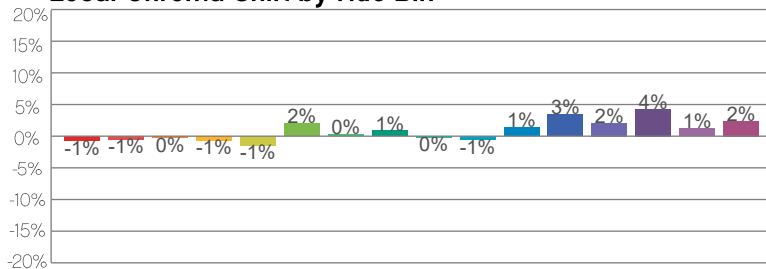
Color Distortion Graphic



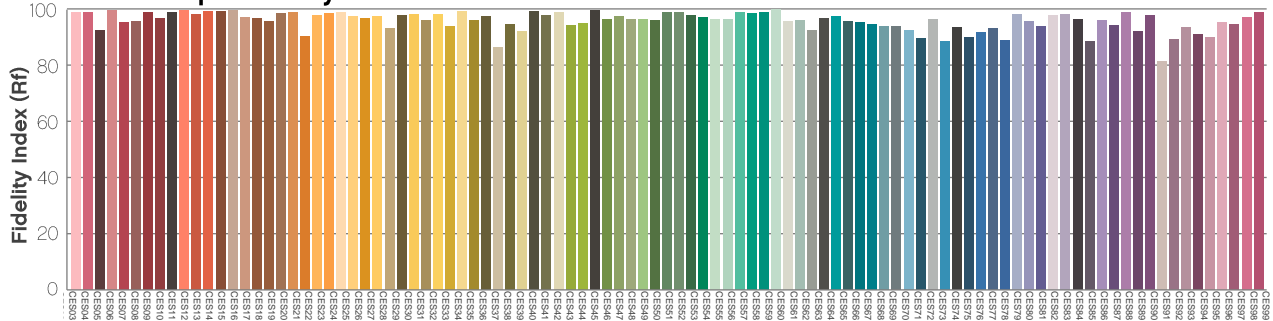
R_f by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



Contact Us

General Information	Technical Support
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Bruno-Bürgel-Str. 11 28759 Bremen, Germany Voice: +49 421 62 60 20	Email: DEtech@chauvetlighting.de Website: www.chauvetprofessional.eu
Chauvet Mexico	
Av. de las Partidas 34 - 3B (Entrance by Calle 2) Zona Industrial Lerma Lerma, Edo. de México, CP 52000 Voice: +52 (728) 690-2010	Email: servicio@chauvetlighting.de Website: www.chauvetprofessional.eu

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.