PHOTOMETRICS REPORT

OVATION
P-56FC

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 P-56FC: Wide Lens, Full Power

Report Summary

Output

Total Lumens: 6920 lm
Peak Intensity: 4941 cd
Illuminance @ 5m: 197 lux
Fixture Efficacy: 37 lm/W

Optical

Horizontal Beam Angle (50%): 73.2°
Vertical Beam Angle (50%): 71.7°
Horizontal Field Angle (10%): 105.5°
Vertical Field Angle (10%): 104.2°
Horizontal Cutoff Angle (3%): 121.9°
Vertical Cutoff Angle (3%): 125.1°

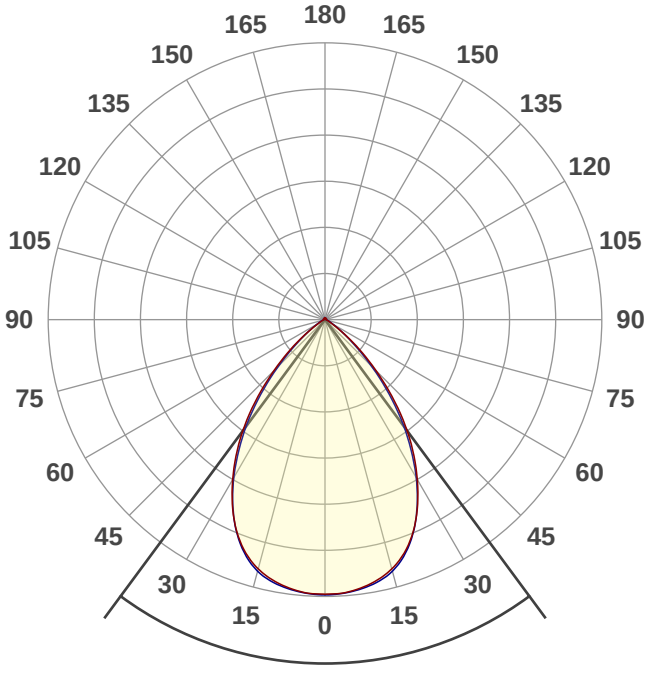
Conditions

AC Supply: 117 V, 60 Hz
Power: 188.07 W
Current: 1.61 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 9/24/2019 to LM-63-2002 Standards.

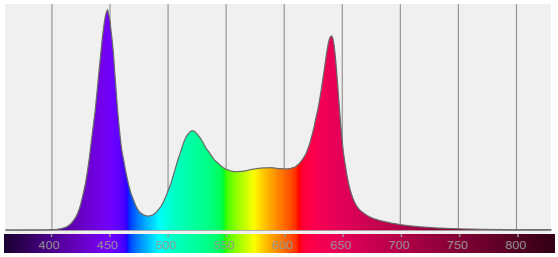
Overall Measurement

Angular Beam Distribution

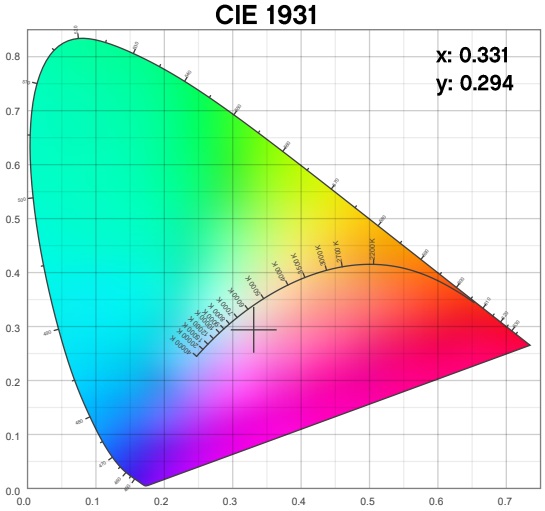


Beam Angle **72.9°**

Spectral Distribution



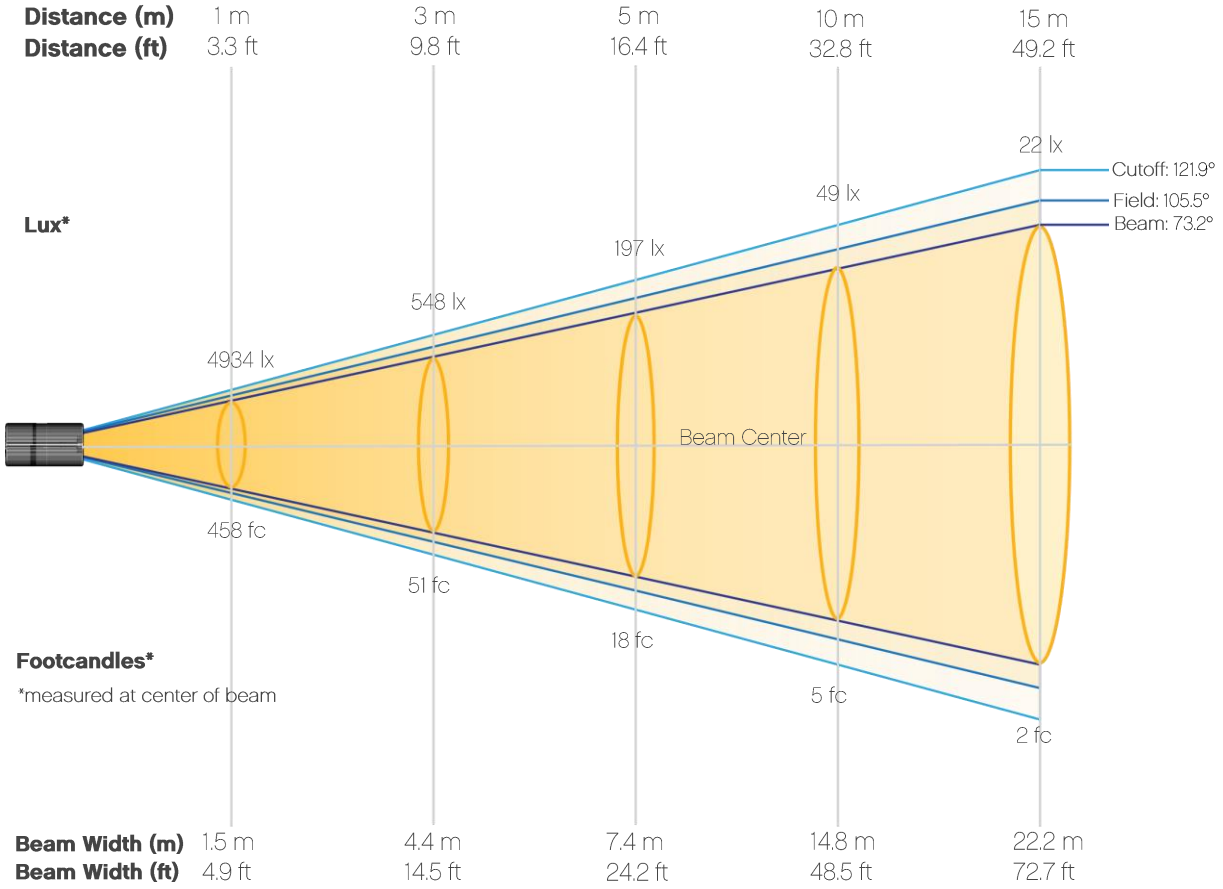
CIE 1931



Photometric Report

Ovation P-56FC: Wide Lens, Full Power

Beam Details



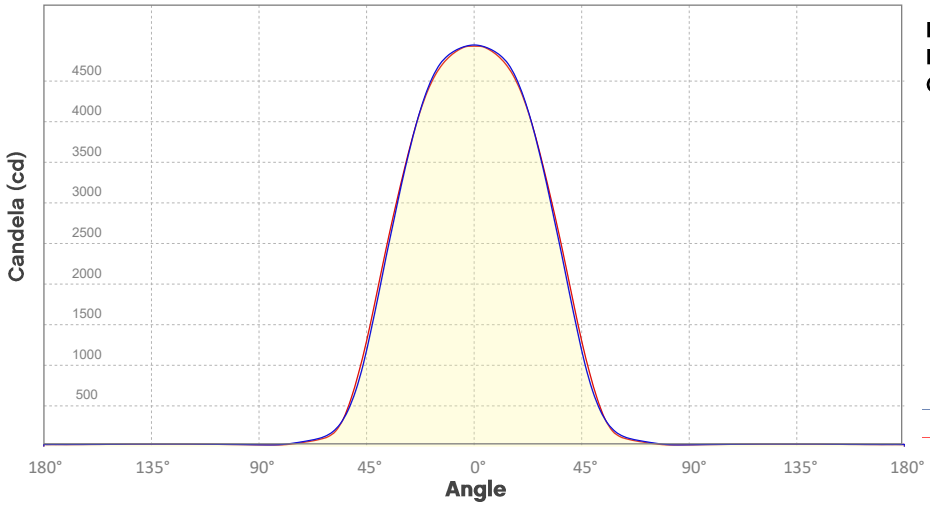
Beam Illuminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	4934	1233	548	308	197	137	101	77	61	49
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	41	34	29	25	22	19	17	15	14	12
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	458	115	51	29	18	13	9	7	6	5
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	2	1	1	1

Photometric Report

Ovation P-56FC: Wide Lens, Full Power

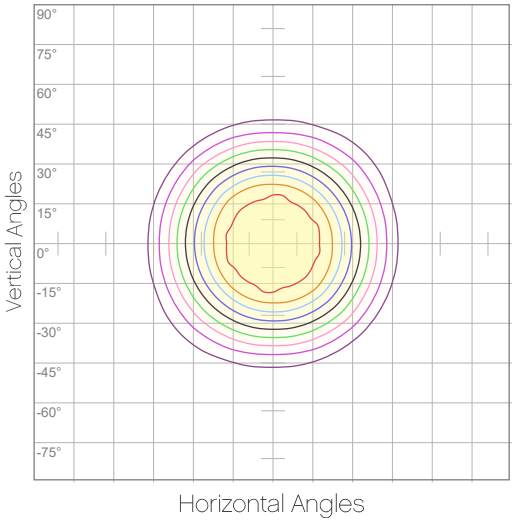
Candela Plot



Beam Angle (50%): 72.9°
Field Angle (10%): 106.2°
Cutoff Angle (3%): 124.9°

Horizontal Distribution
Vertical Distribution

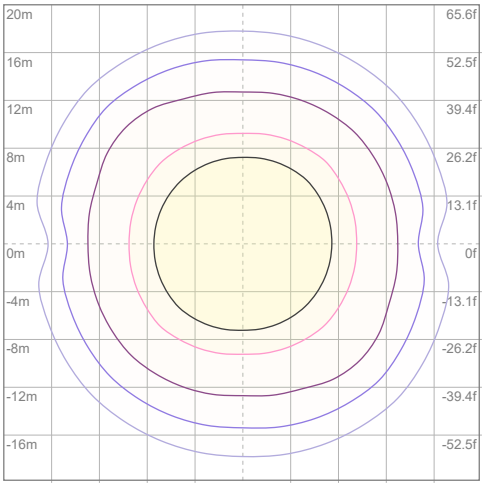
Polar Diagrams



iso-candela Diagram

10%	493 cd
20%	987 cd
30%	1480 cd
40%	1974 cd
50%	2467 cd
60%	2960 cd
70%	3454 cd
80%	3947 cd
90%	4440 cd

Conditions:
Number of c-planes: 8
Candela at center: 4934 cd



iso-illuminance Diagram

3%	1.48 lx
5%	2.47 lx
10%	4.93 lx
30%	14.8 lx
50%	24.7 lx

Conditions:
Number of c-planes: 8
Lux at center: 49.3 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 P-56FC: Medium Lens, Full Power

Report Summary

Output

Total Lumens: 7145 lm
Peak Intensity: 31281 cd
Illuminance @ 5m: 1250 lux
Fixture Efficacy: 39 lm/W

Optical

Horizontal Beam Angle (50%): 24.5°
Vertical Beam Angle (50%): 24.3°
Horizontal Field Angle (10%): 40.9°
Vertical Field Angle (10%): 40°
Horizontal Cutoff Angle (3%): 61.2°
Vertical Cutoff Angle (3%): 60.8°

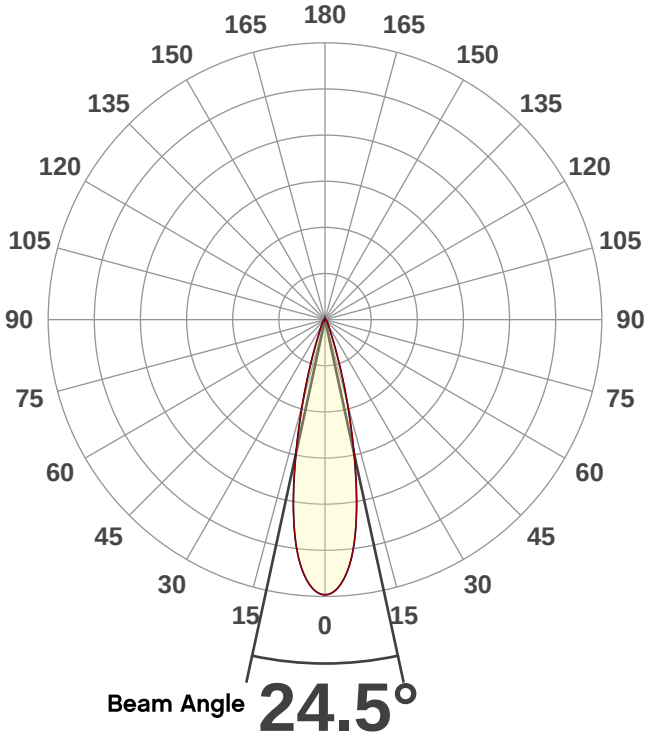
Conditions

AC Supply: 118 V, 60 Hz
Power: 186.16 W
Current: 1.58 A
Power Factor: 0.99

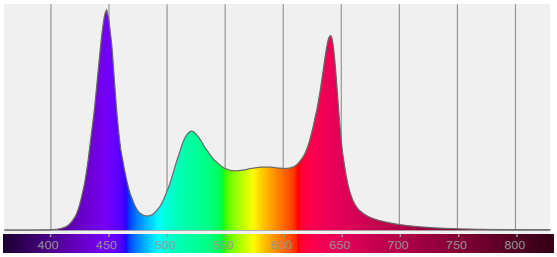
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 7/8/2019 to LM-63-2002 Standards.

Overall Measurement

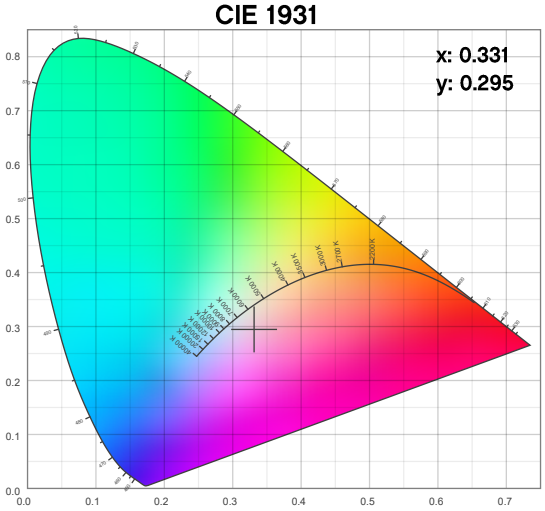
Angular Beam Distribution



Spectral Distribution



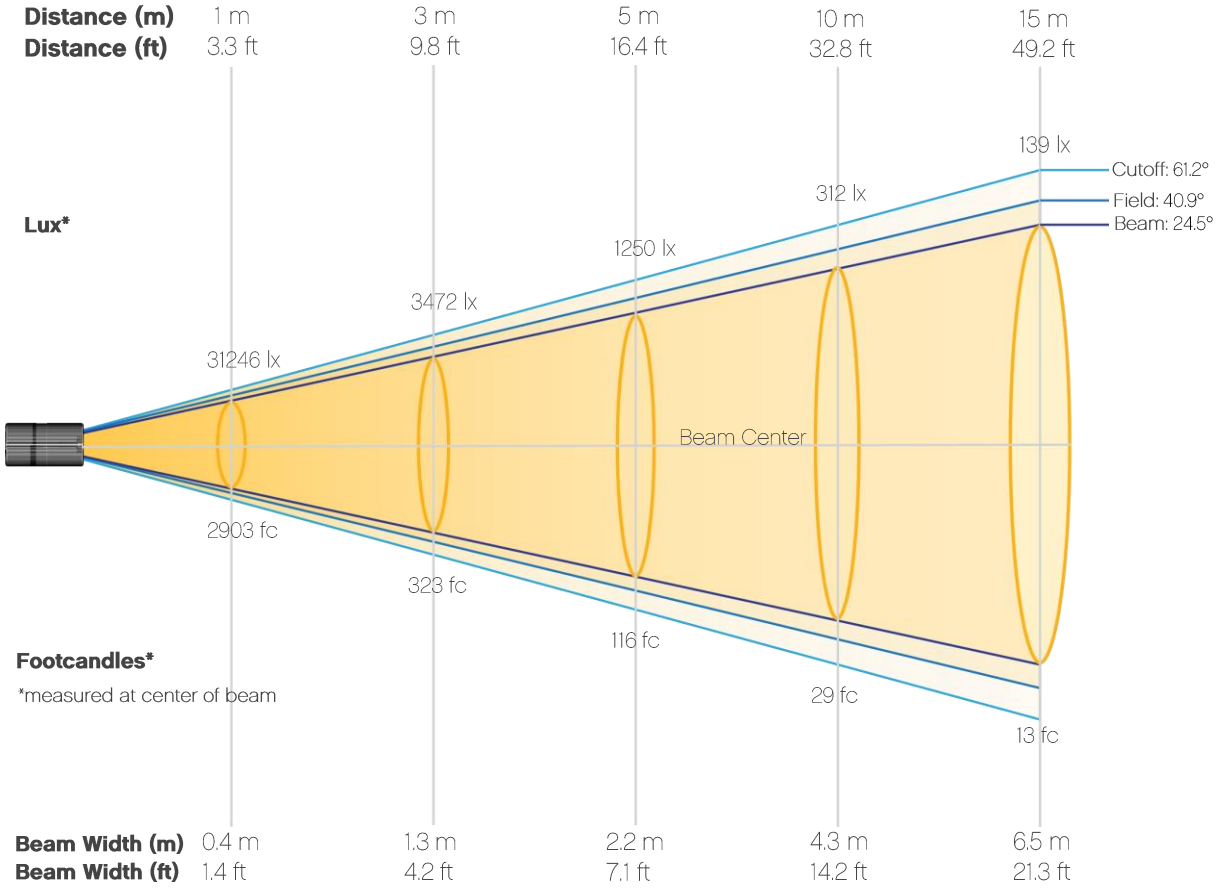
CIE 1931



Photometric Report

Ovation P-56FC: Medium Lens, Full Power

Beam Details



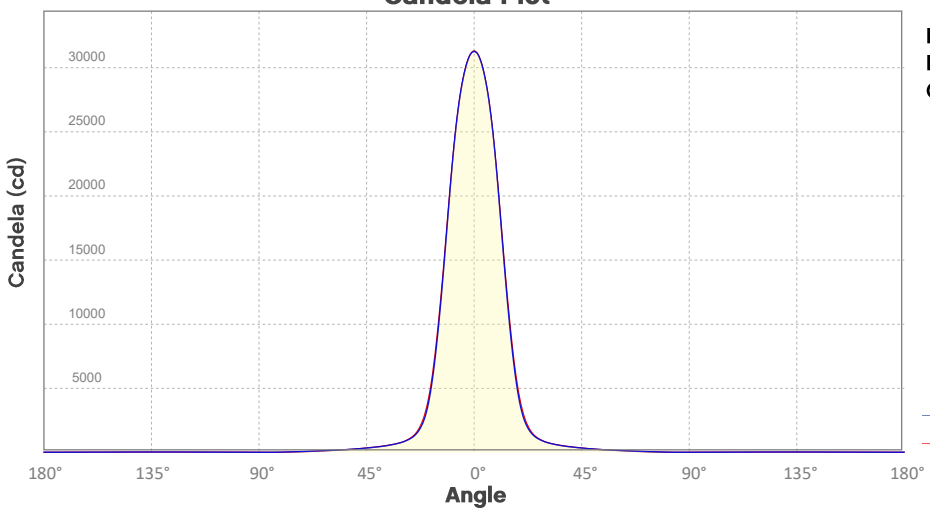
Beam Illuminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	31246	7812	3472	1953	1250	868	638	488	386	312
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	258	217	185	159	139	122	108	96	87	78
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	2903	726	323	181	116	81	59	45	36	29
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	24	20	17	15	13	11	10	9	8	7

Photometric Report

Ovation P-56FC: Medium Lens, Full Power

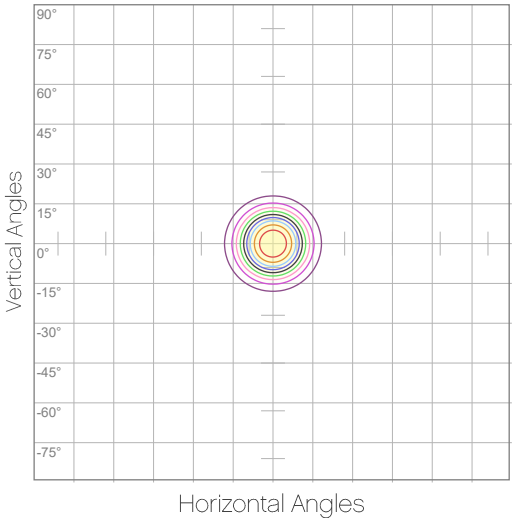
Candela Plot



Beam Angle (50%): 24.5°
Field Angle (10%): 40.5°
Cutoff Angle (3%): 61°

Horizontal Distribution
Vertical Distribution

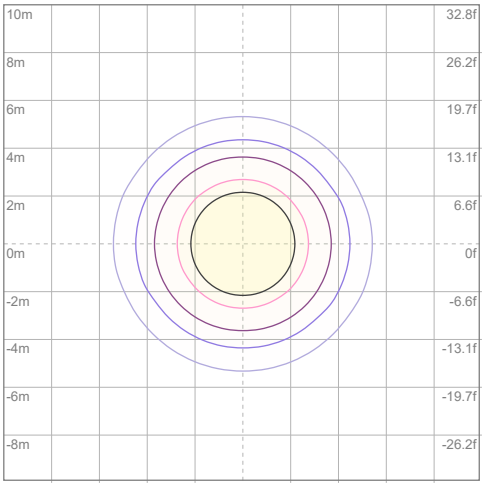
Polar Diagrams



iso-candela Diagram

10%	3125 cd
20%	6249 cd
30%	9374 cd
40%	12499 cd
50%	15623 cd
60%	18748 cd
70%	21872 cd
80%	24997 cd
90%	28122 cd

Conditions:
Number of c-planes: 8
Candela at center: 31246 cd



iso-illuminance Diagram

3%	9.37 lx
5%	15.6 lx
10%	31.2 lx
30%	93.7 lx
50%	156 lx

Conditions:
Number of c-planes: 8
Lux at center: 312 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 P-56FC: 3200K

Report Summary

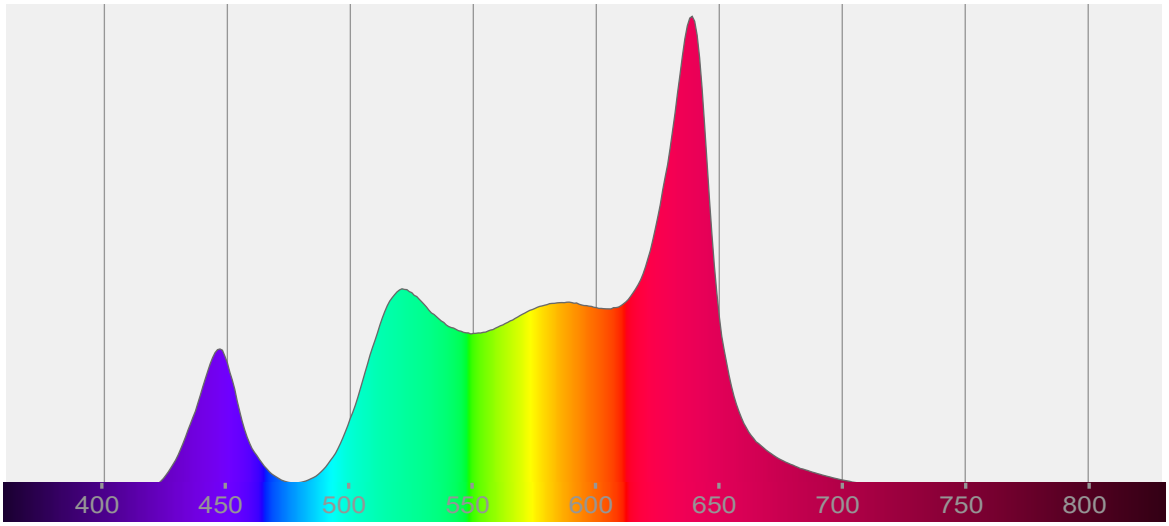
Measurements

Total Lumens: 5908 lm
Peak Intensity: 25006 cd
Fixture Efficacy: 48 lm/W

Correlated Color Temperature: 3199K
Δuv: 0.0056

CRI: 89.9 CRI R9 Value: 88.6
CQS: 89.0
TLCI: 73
TM-30-18 Rf: 88.9
TM-30-18 Rg: 107.2
1st Dominant Wavelength: 639 nM
2nd Dominant Wavelength: 521 nM

Spectral Distribution



Tested Color

3199 K

CIE 1931 Coordinates:
X: 0.431 Y: 0.416

Color Temperature

3199 K

Light Quality

CRI: 89.9

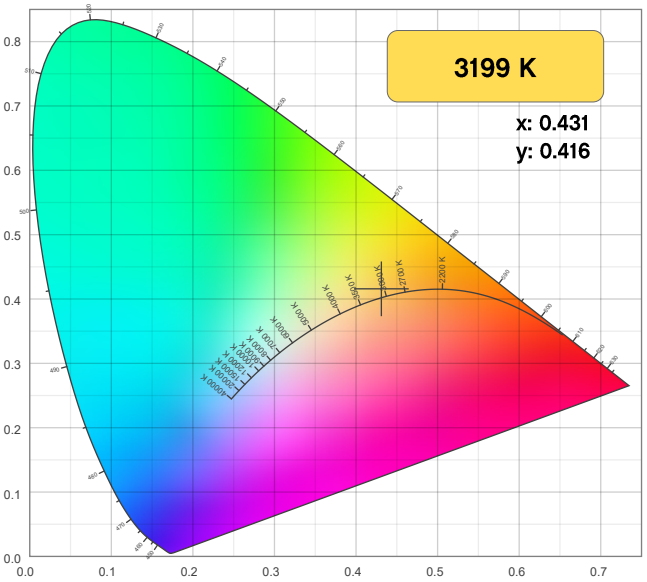
Notes:

Chromaticity Report

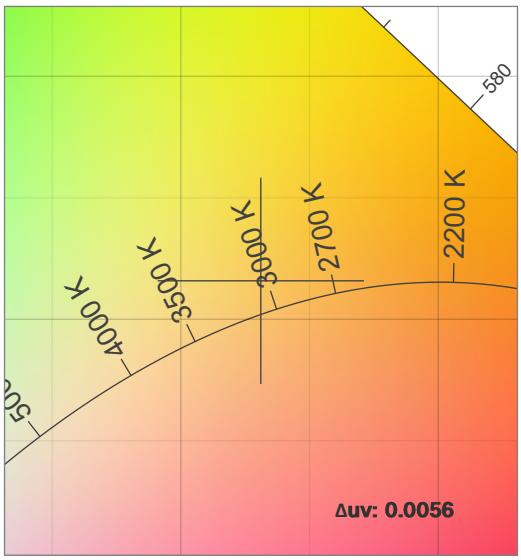
Ovation P-56FC: 3200K

Chromaticity

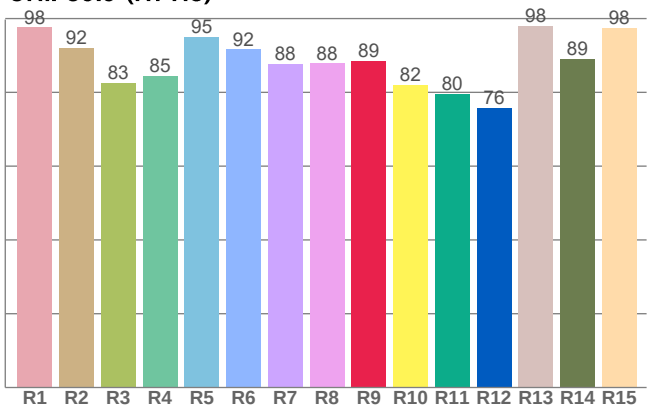
CIE 1931



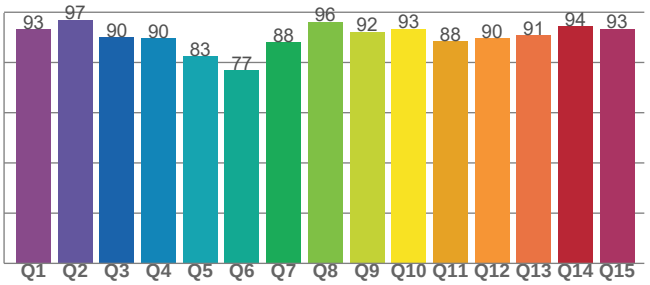
CIE 1931 - Zoom



CRI: 89.9 (R1-R8)



CQS: 89.0



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3199 K	0.431	0.416

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0056	0.416	0.242

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
89.9	88.6	89.0

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
73	88.9	107.2

Chromaticity Report

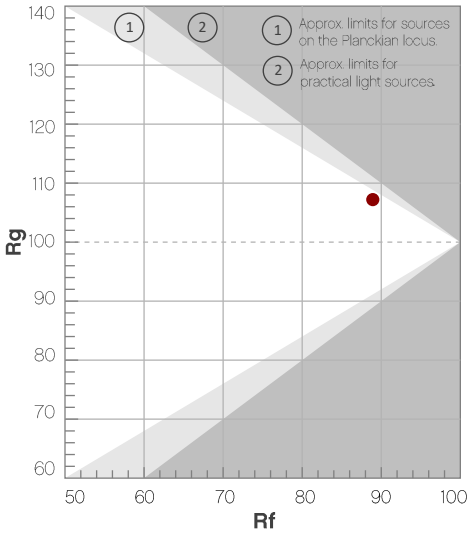
Ovation P-56FC: 3200K

TM-30-18 Details

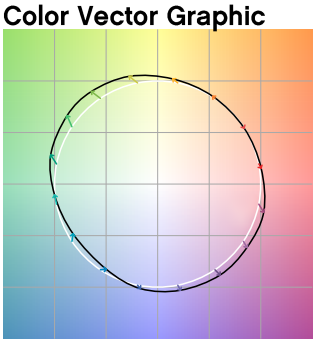
Rf 88.9
Fidelity Index (Rg)

Rg 107.2
Gamut Index (Rg)

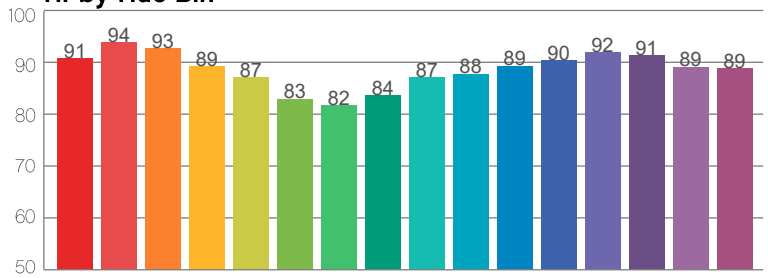
Hue Bin	R_f	Chroma Shift	Hue Shift
1	91	1%	-4%
2	94	0%	-1%
3	93	0%	3%
4	89	3%	5%
5	87	8%	7%
6	83	10%	4%
7	82	10%	-6%
8	84	7%	-7%
9	87	0%	-9%
10	88	-5%	-5%
11	89	-4%	4%
12	90	3%	3%
13	92	5%	2%
14	91	7%	1%
15	89	6%	-3%
16	89	6%	-7%



Color Vector Graphic

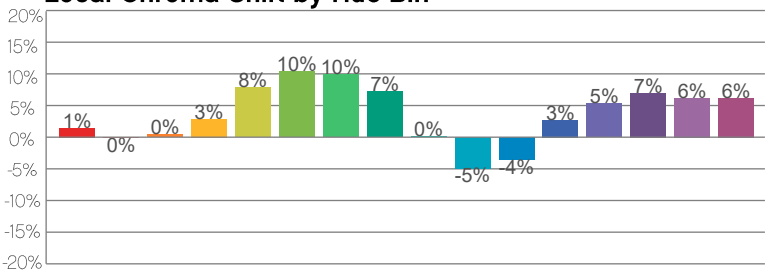


Rf by Hue Bin

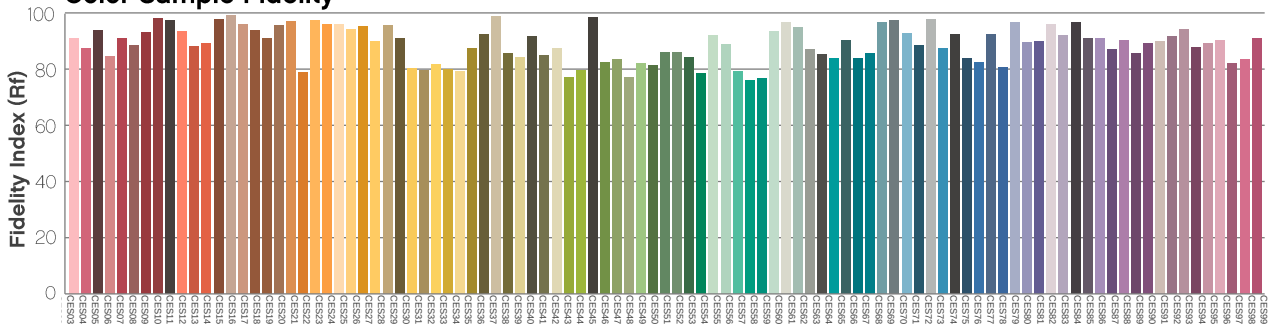


Color Distortion Graphic

Local Chroma Shift by Hue Bin



Color Sample Fidelity



Chromaticity Report

Ovation P-56FC: 5600K

Report Summary

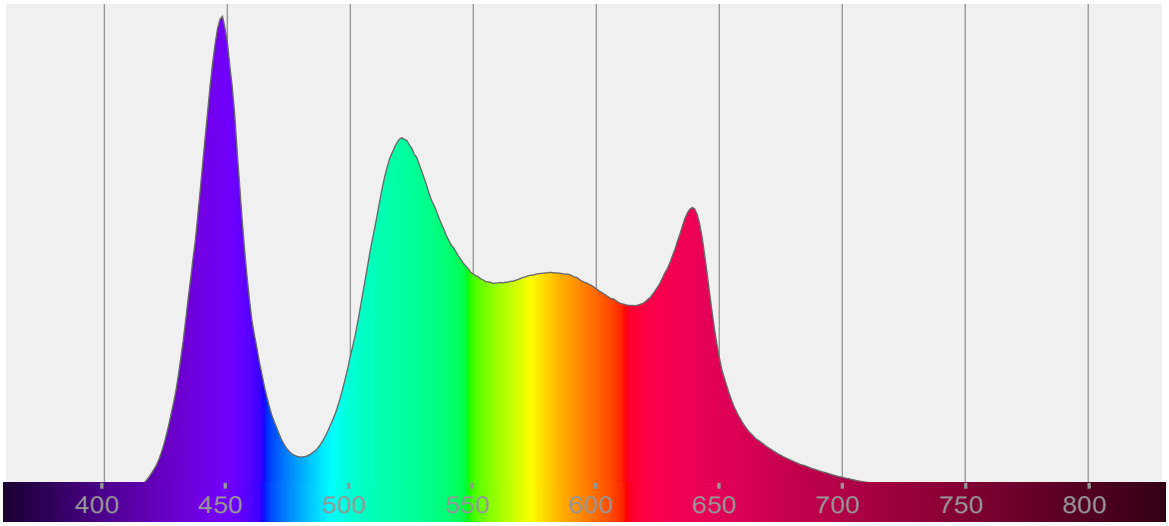
Measurements

Total Lumens: 6405 lm
Peak Intensity: 27126 cd
Fixture Efficacy: 45 lm/W

Correlated Color Temperature: 5605K
Δuv: 0.0056

CRI: 84.6 CRI R9 Value: 65.5
CQS: 88.2
TLCI: 73
TM-30-18 Rf: 84.7
TM-30-18 Rg: 104.8
1st Dominant Wavelength: 448 nM
2nd Dominant Wavelength: 521 nM

Spectral Distribution



Tested Color

5605 K
CIE 1931 Coordinates:
X: 0.330 Y: 0.357

Color Temperature

5605 K

Light Quality

CRI: 84.6

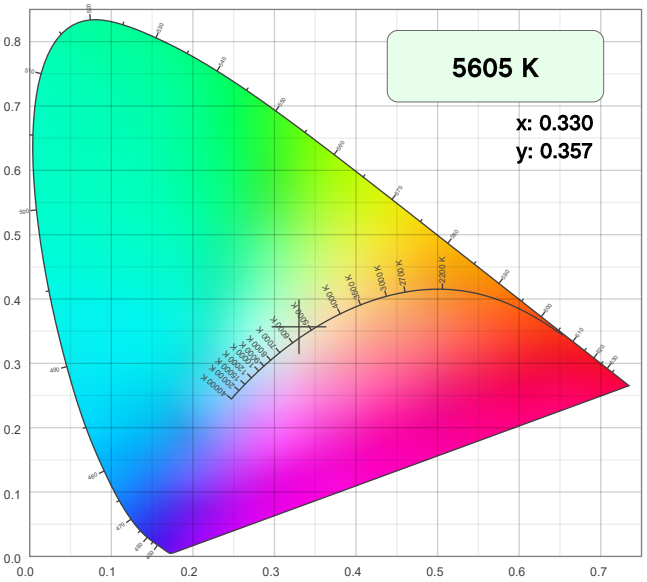
Notes:

Chromaticity Report

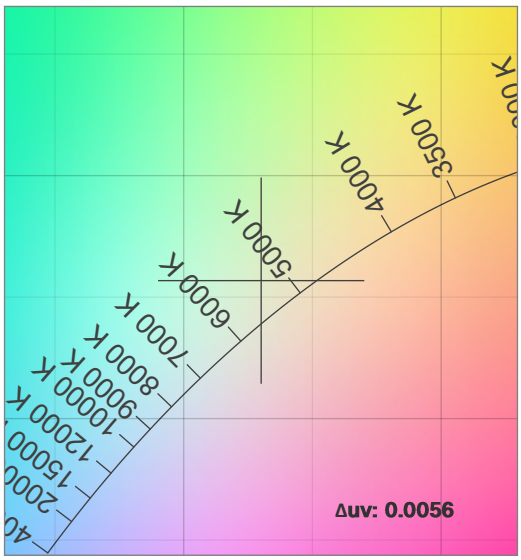
Ovation P-56FC: 5600K

Chromaticity

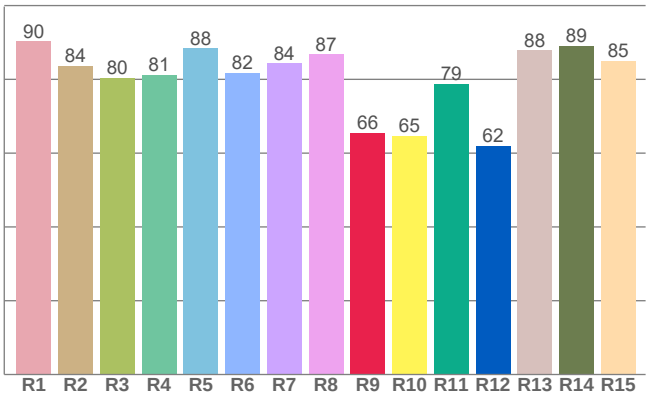
CIE 1931



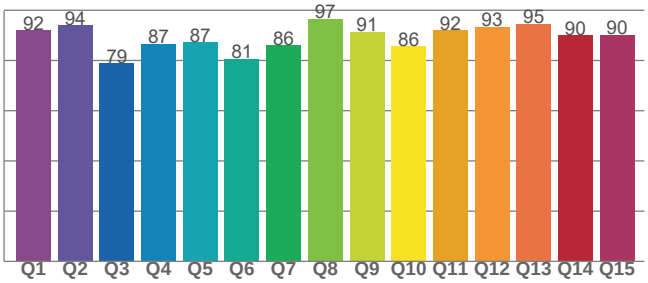
CIE 1931 - Zoom



CRI: 84.6 (R1-R8)



CQS: 88.2



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
5605 K	0.330	0.357

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0056	0.357	0.199

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
84.6	65.5	88.2

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
73	84.7	104.8

Chromaticity Report

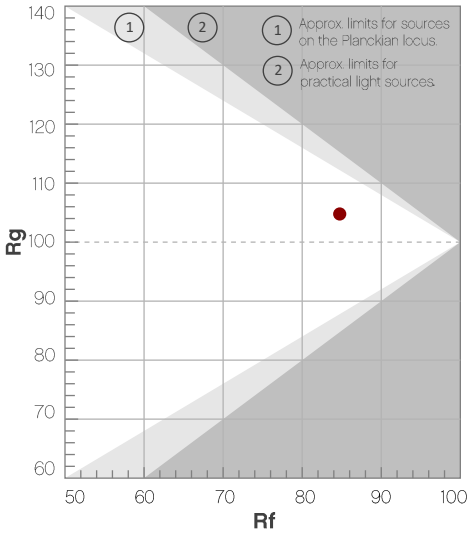
Ovation P-56FC: 5600K

TM-30-18 Details

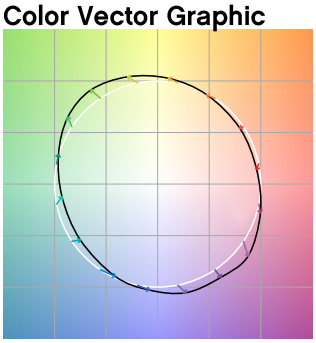
Rf 84.7
Fidelity Index (Rg)

Rg 104.8
Gamut Index (Rg)

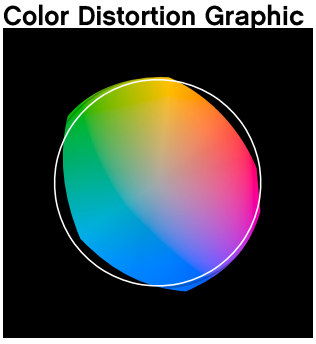
Hue Bin	R_f	Chroma Shift	Hue Shift
1	88	-3%	-5%
2	93	-4%	1%
3	85	-1%	8%
4	84	3%	10%
5	83	8%	8%
6	82	12%	3%
7	85	8%	-5%
8	84	0%	-9%
9	90	-7%	-6%
10	87	-8%	3%
11	75	-3%	15%
12	82	2%	12%
13	88	9%	6%
14	84	9%	1%
15	84	12%	-9%
16	86	3%	-8%



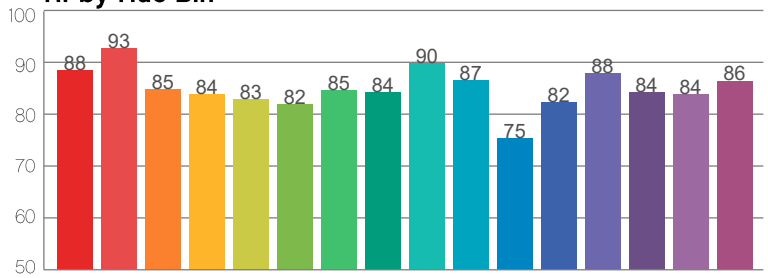
Color Vector Graphic



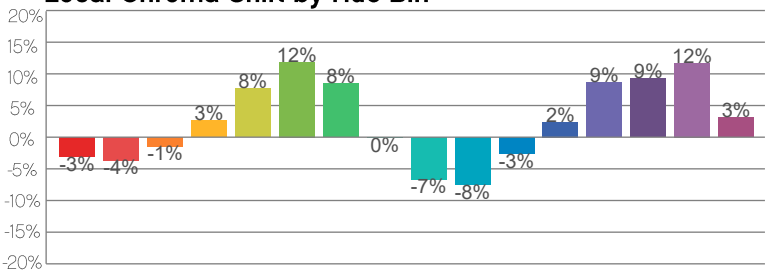
Color Distortion Graphic



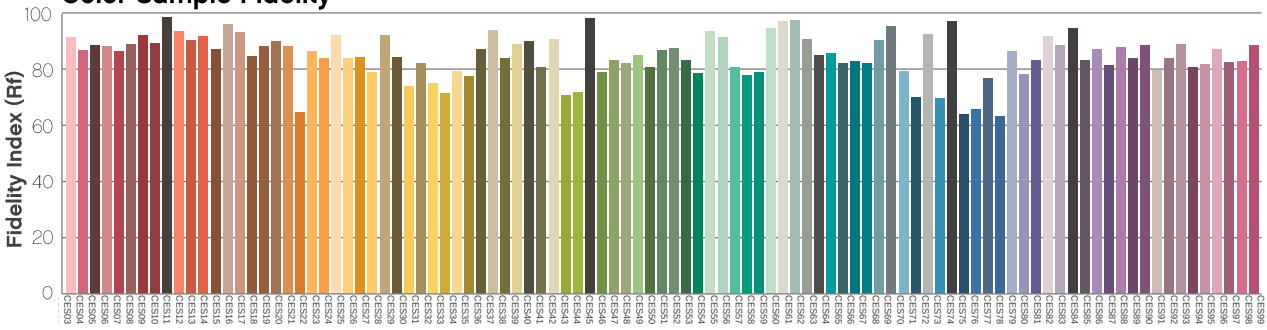
Rf by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



Contact Us

General Information	Technical Support
Chauvet World Headquarters	
5200 NW 108th Ave. Sunrise, FL 33351 Voice: (954) 577-4455 Fax: (954) 929-5560 Toll Free: (800) 762-1084	Voice: (844) 393-7575 Fax: (954) 756-8015 Email: chauvetcs@chauvetlighting.com Website: www.chauvetprofessional.com
Chauvet Europe Ltd	
Unit 1C Brookhill Road Industrial Estate Pinxton, Nottingham, UK NG16 6NT Voice: +44 (0) 1773 511115 Fax: +44 (0) 1773 511110	Email: UKtech@chauvetlighting.eu Website: www.chauvetprofessional.eu
Chauvet Europe BVBA	
Stokstraat 18 9770 Kruishoutem, Belgium Voice: +32 (9) 388 93 97	Email: BNLtech@chauvetlighting.eu Website: www.chauvetprofessional.eu
Chauvet France	
3, Rue Ampère 91380 Chilly-Mazarin, France Voice: +33 1 78 85 33 59	Email: FRtech@chauvetlighting.fr Website: www.chauvetprofessional.eu
Chauvet Germany	
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.