PHOTOMETRICS REPORT

OVATION
P-56VW

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-56VW: Wide Lens, Full Power

Report Summary

Output

Total Lumens: 6432 lm
Peak Intensity: 4661 cd
Illuminance @ 5m: 186 lux
Fixture Efficacy: 34 lm/W

Optical

Horizontal Beam Angle (50%): 74°
Vertical Beam Angle (50%): 73.5°
Horizontal Field Angle (10%): 103°
Vertical Field Angle (10%): 105.3°
Horizontal Cutoff Angle (3%): 119.2°
Vertical Cutoff Angle (3%): 123°

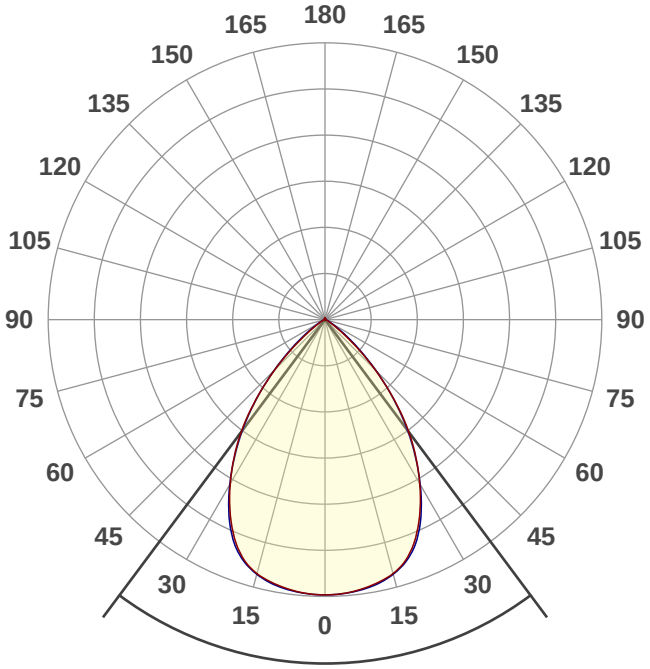
Conditions

AC Supply: 117 V, 60 Hz
Power: 192.58 W
Current: 1.64 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.

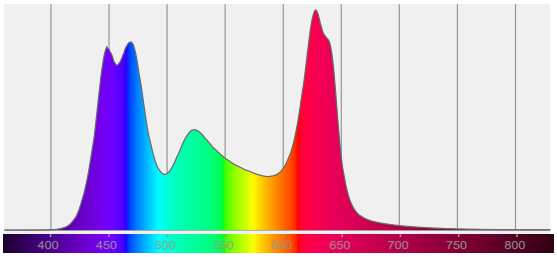
Overall Measurement

Angular Beam Distribution

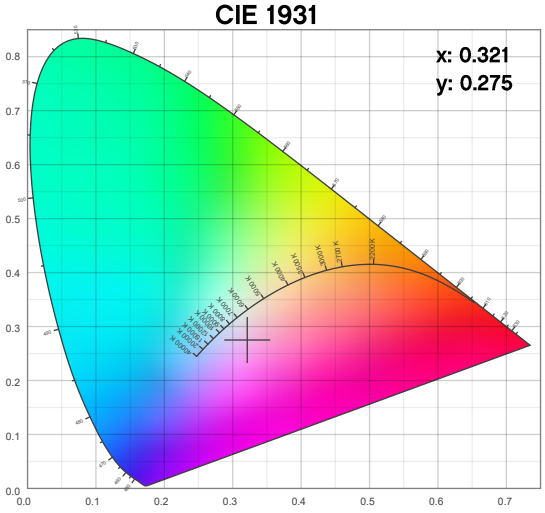


Beam Angle **73.4°**

Spectral Distribution



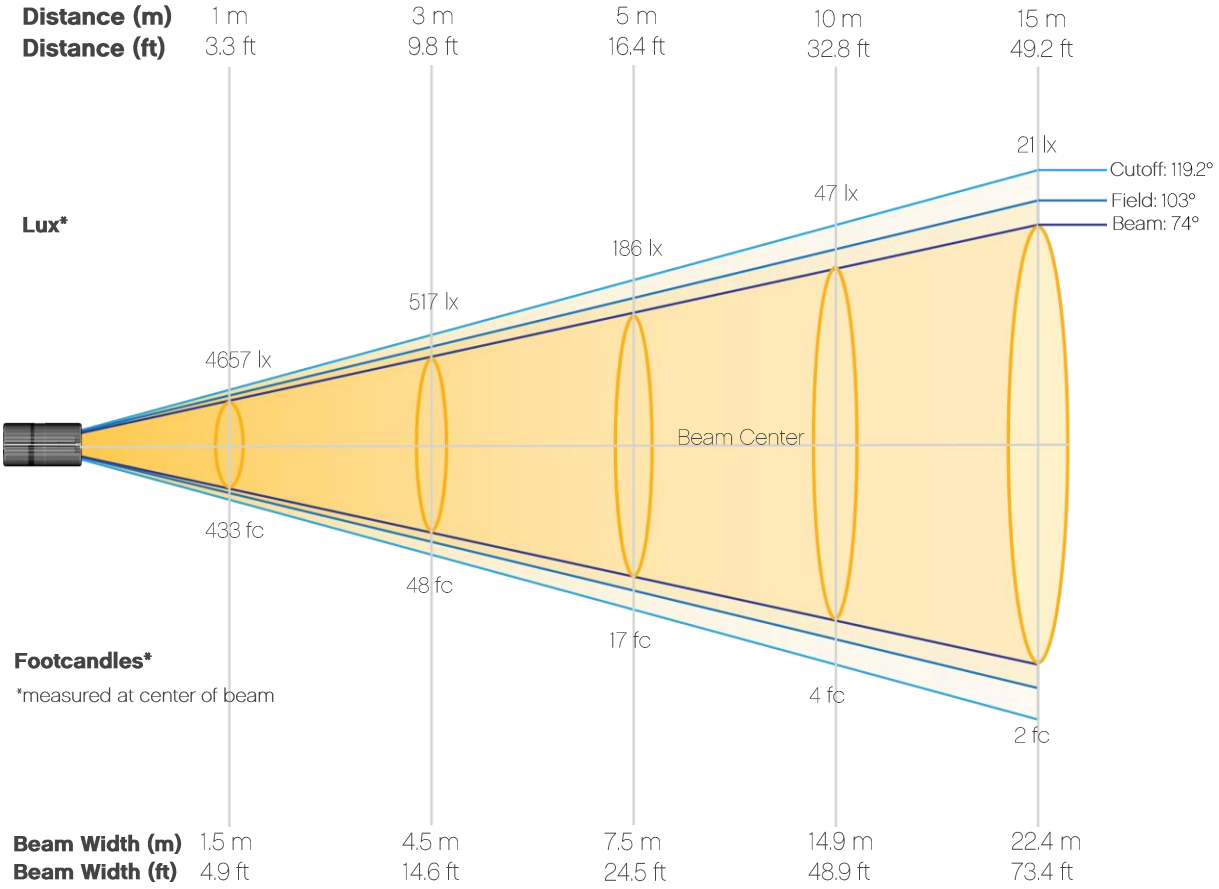
CIE 1931



Photometric Report

Ovation P-56VW: Wide Lens, Full Power

Beam Details



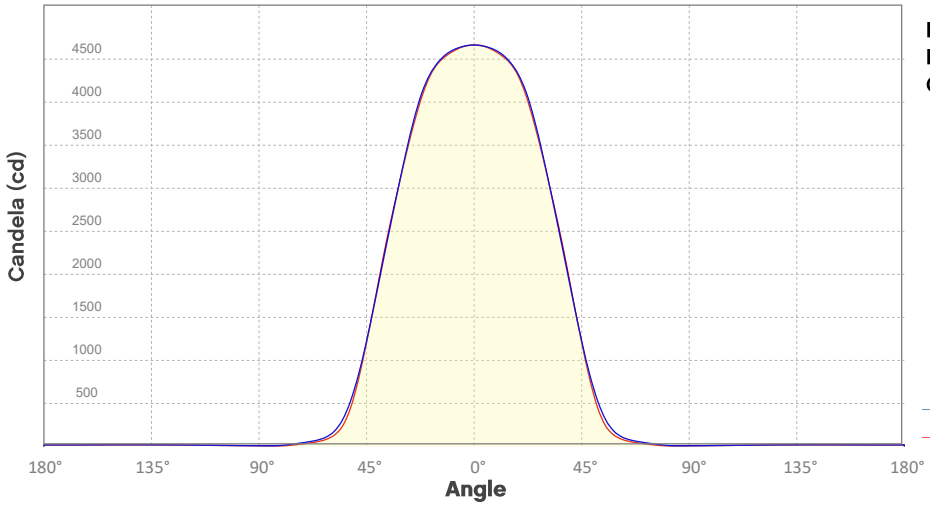
Beam Iluminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	4657	1164	517	291	186	129	95	73	57	47
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	38	32	28	24	21	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	433	108	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 P-56VW: Wide Lens, Full Power

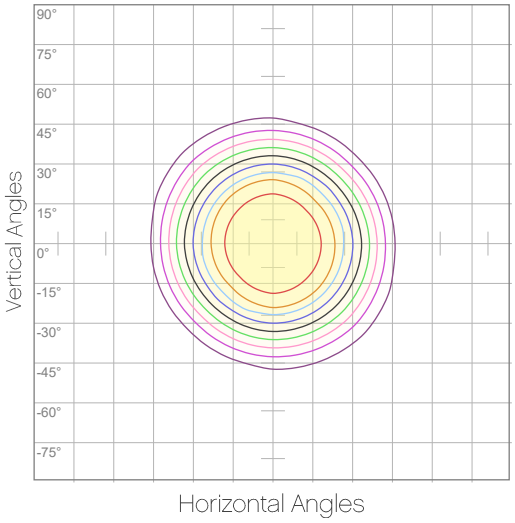
Candela Plot



Beam Angle (50%): 73.4°
Field Angle (10%): 104.6°
Cutoff Angle (3%): 121.6°

Horizontal Distribution
Vertical Distribution

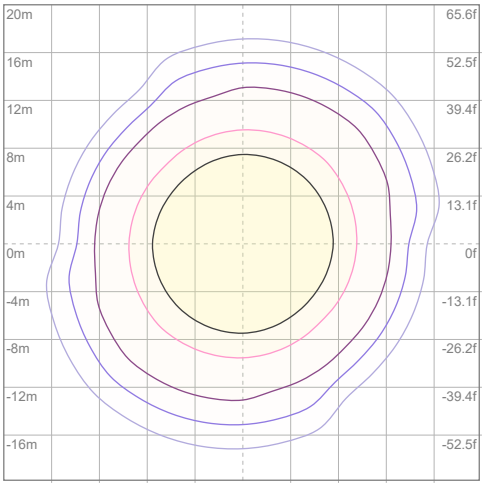
Polar Diagrams



iso-candela Diagram

10%	466 cd
20%	931 cd
30%	1397 cd
40%	1863 cd
50%	2329 cd
60%	2794 cd
70%	3260 cd
80%	3726 cd
90%	4192 cd

Conditions:
Number of c-planes: 8
Candela at center: 4657 cd



iso-illuminance Diagram

3%	1.40 lx
5%	2.33 lx
10%	4.66 lx
30%	14.0 lx
50%	23.3 lx

Conditions:
Number of c-planes: 8
Lux at center: 46.6 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-56VW: Medium Lens, Full Power

Report Summary

Output

Total Lumens: 6369 lm
Peak Intensity: 29678 cd
Illuminance @ 5m: 1187 lux
Fixture Efficacy: 2245 lm/W

Optical

Horizontal Beam Angle (50%): 24°
Vertical Beam Angle (50%): 23.7°
Horizontal Field Angle (10%): 40.1°
Vertical Field Angle (10%): 39.3°
Horizontal Cutoff Angle (3%): 57.5°
Vertical Cutoff Angle (3%): 56.8°

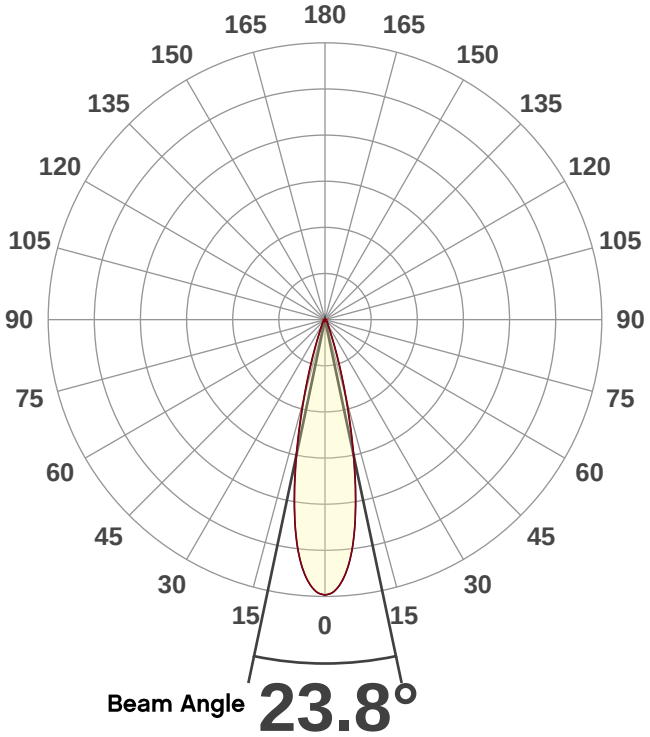
Conditions

AC Supply: 118 V, 60.1 Hz
Power: 9.1 W
Current: 0.077 A
Power Factor: 0.31

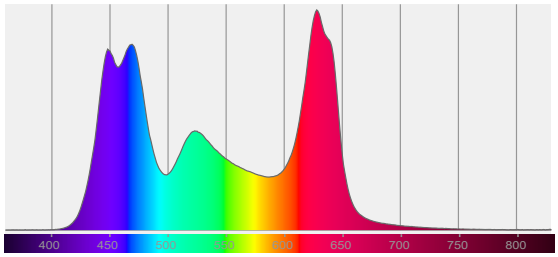
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 7/5/2019 to LM-63-2002 Standards.

Overall Measurement

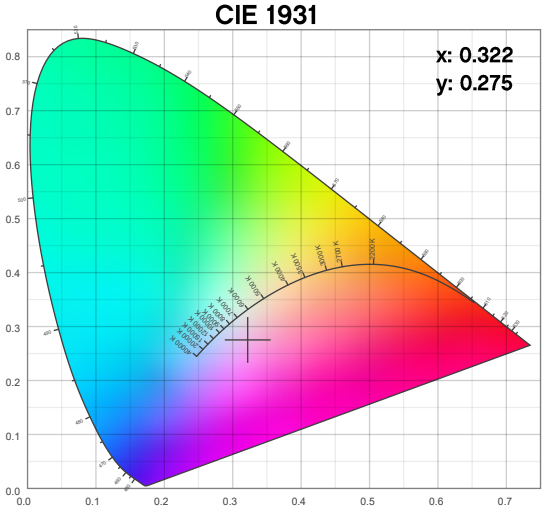
Angular Beam Distribution



Spectral Distribution



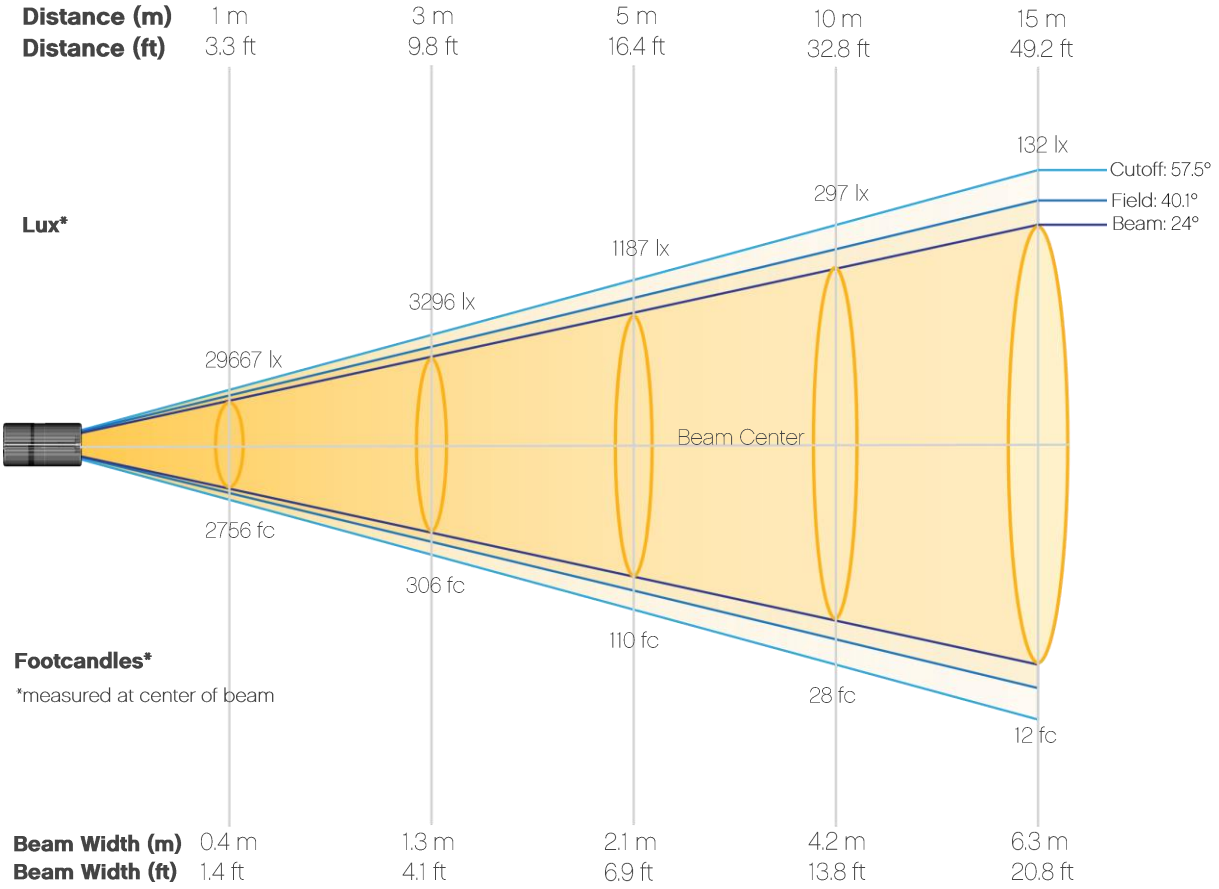
CIE 1931



Photometric Report

Ovation P-56VW: Medium Lens, Full Power

Beam Details



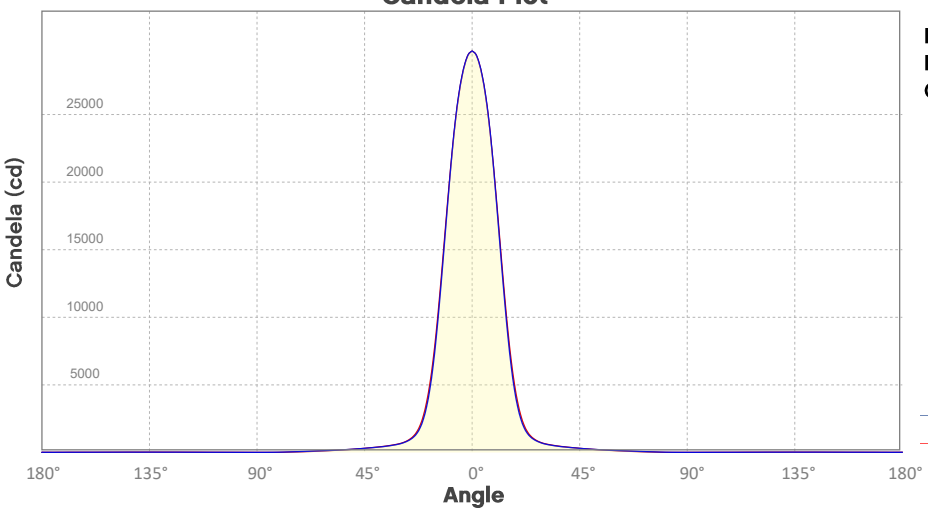
Beam Illuminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	29667	7417	3296	1854	1187	824	605	464	366	297
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	245	206	176	151	132	116	103	92	82	74
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	2756	689	306	172	110	77	56	43	34	28
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	23	19	16	14	12	11	10	9	8	7

Photometric Report

Ovation P-56VW: Medium Lens, Full Power

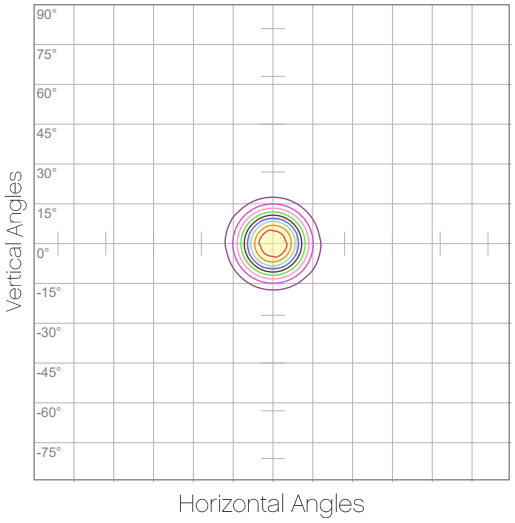
Candela Plot



Beam Angle (50%): 23.8°
Field Angle (10%): 39.7°
Cutoff Angle (3%): 57.4°

Horizontal Distribution
Vertical Distribution

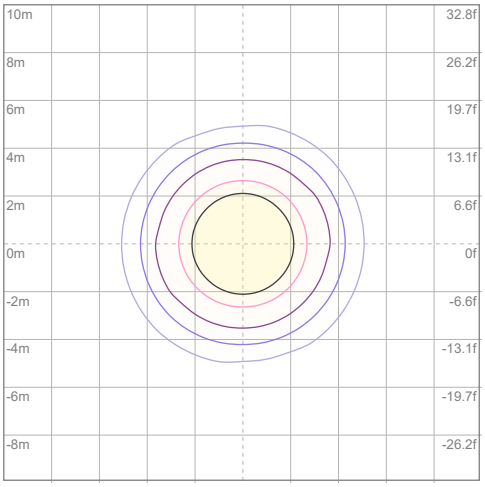
Polar Diagrams



iso-candela Diagram

10%	2967 cd
20%	5933 cd
30%	8900 cd
40%	11867 cd
50%	14833 cd
60%	17800 cd
70%	20767 cd
80%	23733 cd
90%	26700 cd

Conditions:
Number of c-planes: 8
Candela at center: 29667 cd



iso-illuminance Diagram

3%	8.90 lx
5%	14.8 lx
10%	29.7 lx
30%	89.0 lx
50%	148 lx

Conditions:
Number of c-planes: 8
Lux at center: 297 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-56VW: 3200K

Report Summary

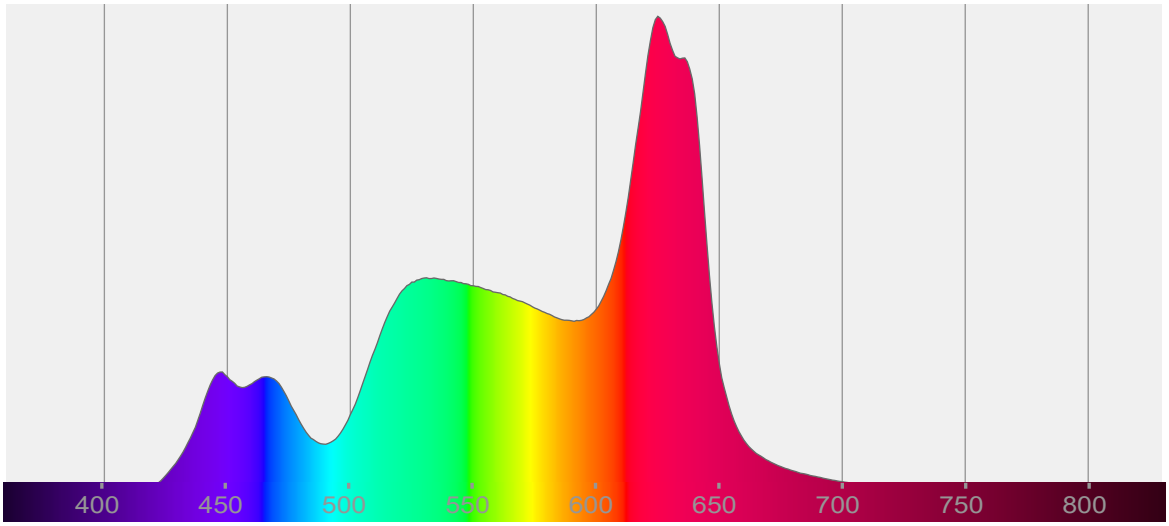
Measurements

Total Lumens: 4691 lm
Peak Intensity: 20942 cd
Fixture Efficacy: 49 lm/W

Correlated Color Temperature: 3204K
Δuv: 0.0014

CRI: 90.4 CRI R9 Value: 76.4
CQS: 92.6
TLCI: 94
TM-30-18 Rf: 92.3
TM-30-18 Rg: 105.4
1st Dominant Wavelength: 625 nM
2nd Dominant Wavelength: 531 nM

Spectral Distribution



Tested Color

3204 K
CIE 1931 Coordinates:
X: 0.425 Y: 0.403

Color Temperature

3204 K

Light Quality

CRI: 90.4

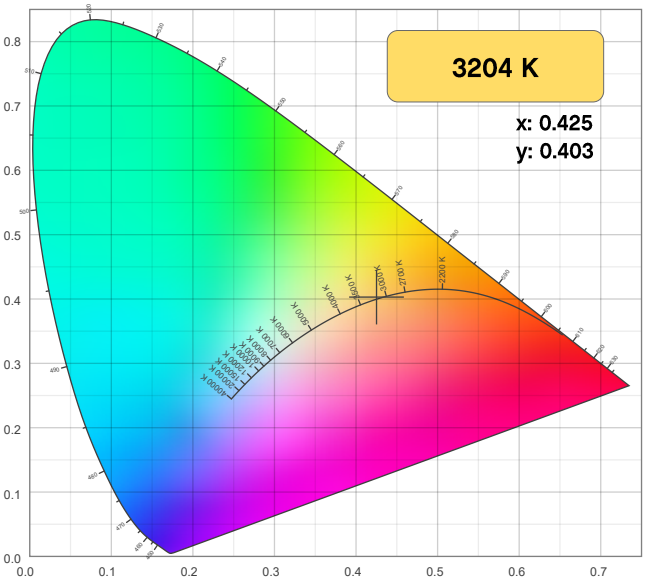
Notes:

Chromaticity Report

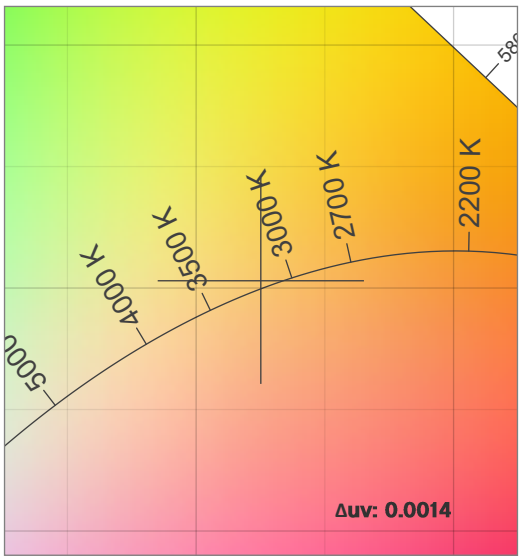
Ovation P-56VW: 3200K

Chromaticity

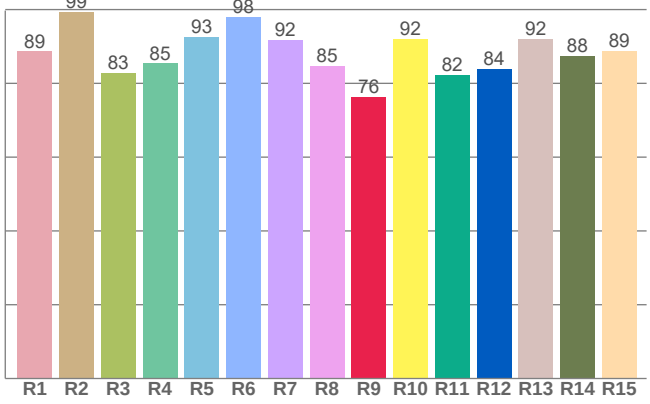
CIE 1931



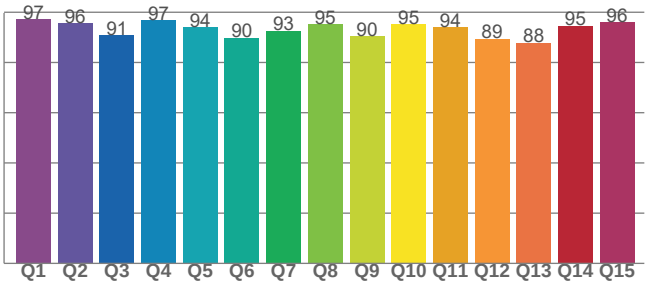
CIE 1931 - Zoom



CRI: 90.4 (R1-R8)



CQS: 92.6



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3204 K	0.425	0.403

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0014	0.403	0.243

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
90.4	76.4	92.6

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
94	92.3	105.4

Chromaticity Report

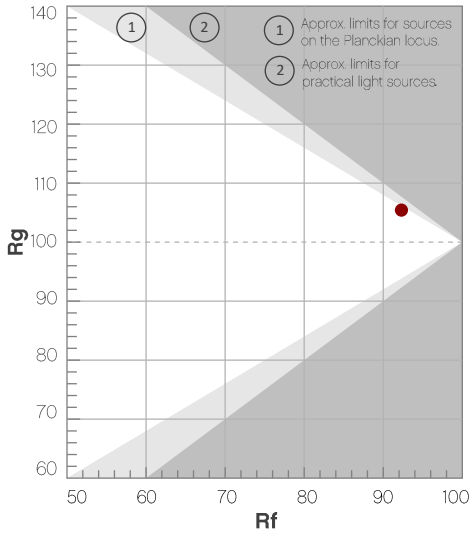
Ovation P-56VW: 3200K

TM-30-18 Details

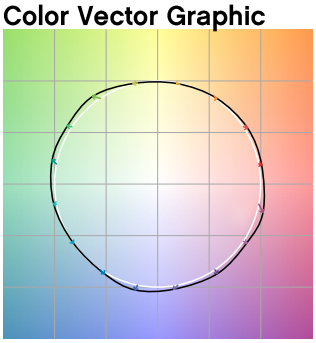
Rf 92.3
Fidelity Index (Rg)

Rg 105.4
Gamut Index (Rg)

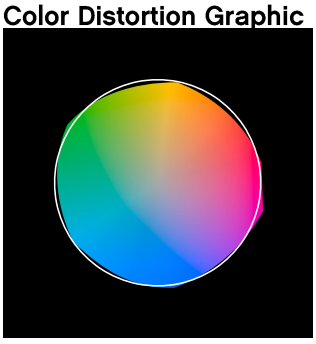
Hue Bin	R_f	Chroma Shift	Hue Shift
1	93	3%	-1%
2	92	3%	-3%
3	93	1%	-1%
4	97	-1%	1%
5	92	0%	4%
6	89	6%	5%
7	91	4%	2%
8	91	5%	-3%
9	95	3%	-1%
10	95	0%	2%
11	92	1%	5%
12	90	5%	-2%
13	92	3%	-5%
14	91	4%	0%
15	91	4%	1%
16	88	6%	-7%



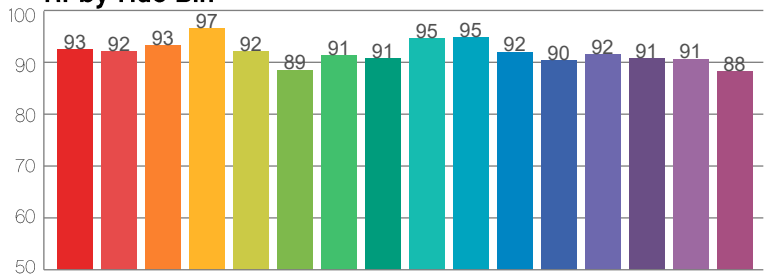
Color Vector Graphic



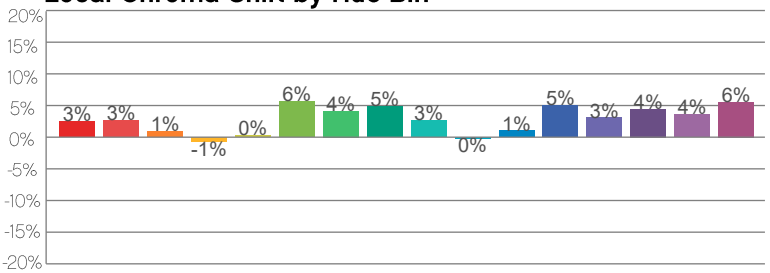
Color Distortion Graphic



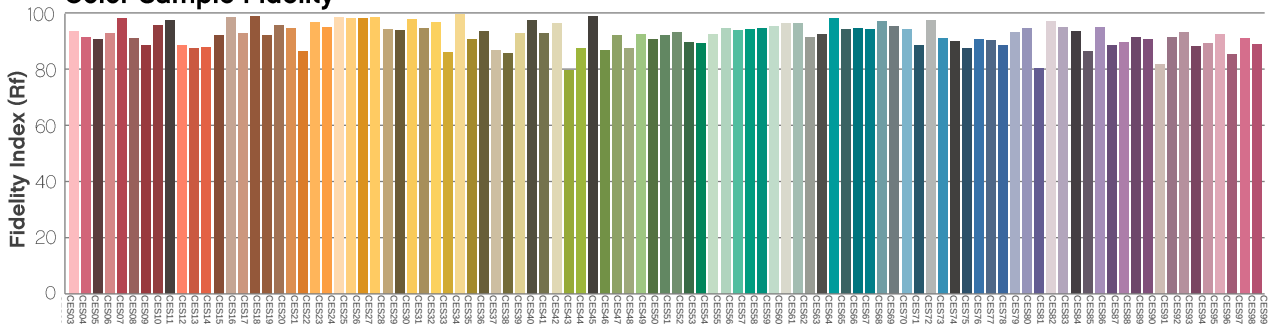
Rf by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



Chromaticity Report

Ovation P-56VW: 5600K

Report Summary

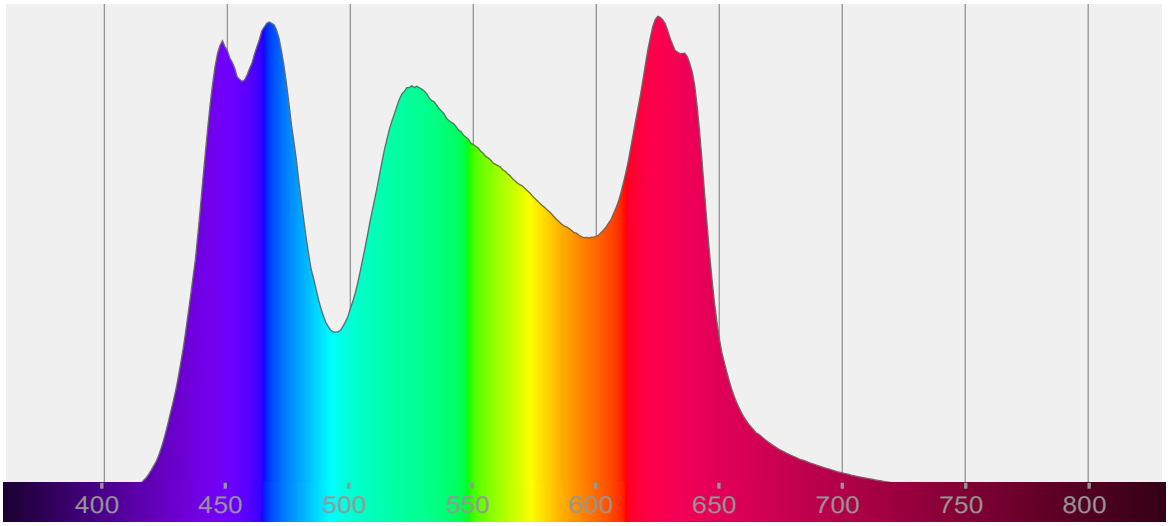
Measurements

Total Lumens: 4530 lm
Peak Intensity: 20398 cd
Fixture Efficacy: 44 lm/W

Correlated Color Temperature: 5601K
Δuv: -0.0015

CRI: 95.0 CRI R9 Value: 80.1
CQS: 94.0
TLCI: 94
TM-30-18 Rf: 92.1
TM-30-18 Rg: 101.7
1st Dominant Wavelength: 625 nM
2nd Dominant Wavelength: 467 nM

Spectral Distribution



Tested Color

5601 K
CIE 1931 Coordinates:
X: 0.330 Y: 0.343

Color Temperature

5601 K

Light Quality

CRI: 95.0

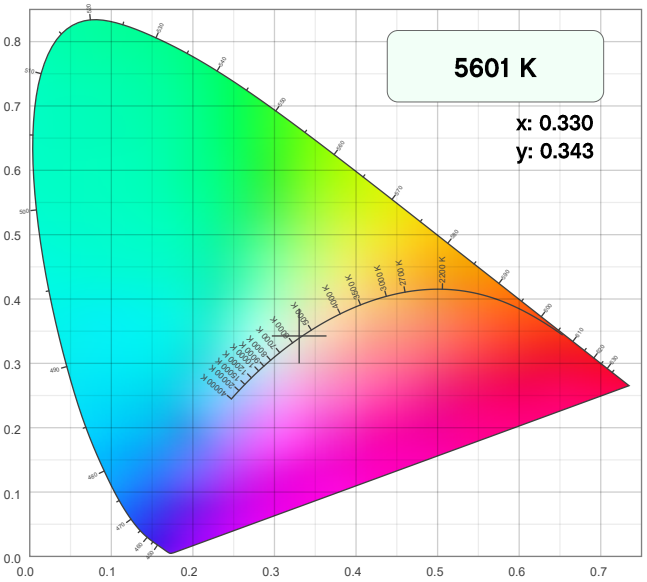
Notes:

Chromaticity Report

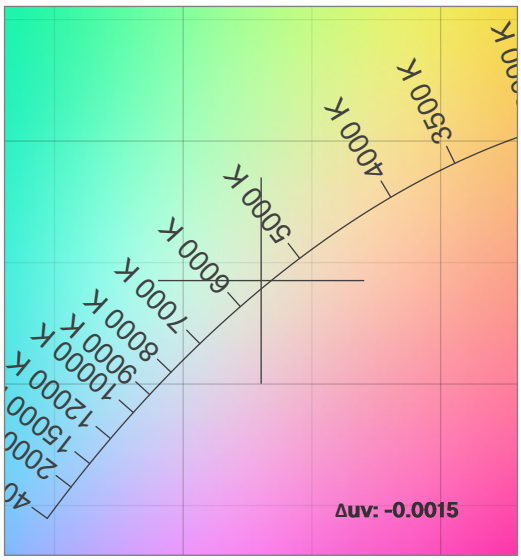
Ovation P-56VW: 5600K

Chromaticity

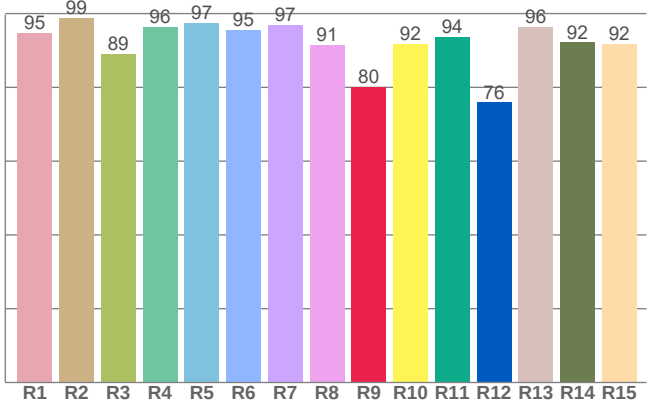
CIE 1931



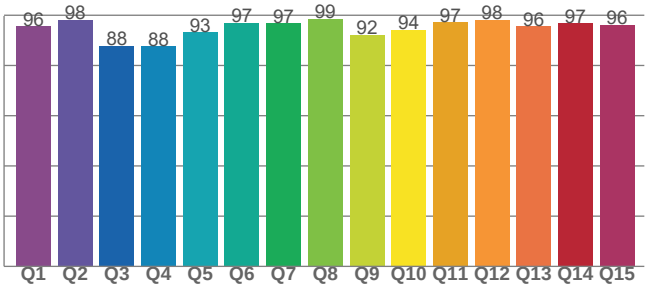
CIE 1931 - Zoom



CRI: 95.0 (R1-R8)



CQS: 94.0



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
5601 K	0.330	0.343

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
-0.0015	0.343	0.205

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
95.0	80.1	94.0

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
94	92.1	101.7

Chromaticity Report

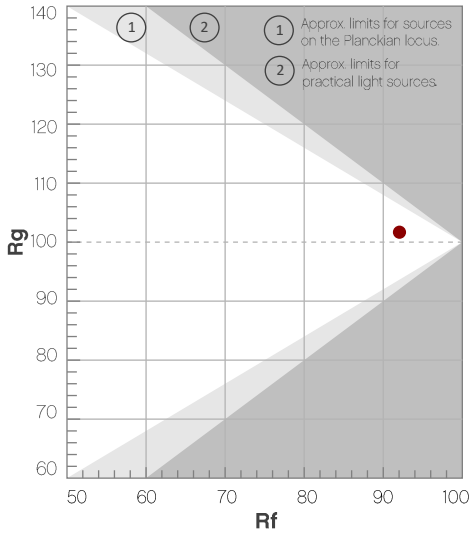
Ovation P-56VW: 5600K

TM-30-18 Details

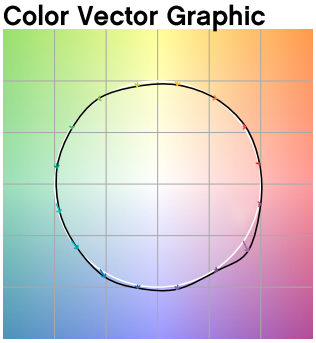
Rf 92.1
Fidelity Index (Rg)

Rg 101.7
Gamut Index (Rg)

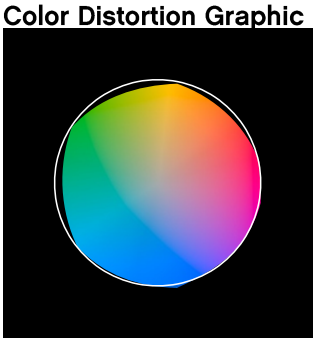
Hue Bin	R_f	Chroma Shift	Hue Shift
1	93	1%	0%
2	96	2%	-1%
3	95	0%	-1%
4	93	-2%	0%
5	91	-3%	1%
6	95	1%	2%
7	96	-1%	1%
8	93	-1%	4%
9	90	-2%	9%
10	86	-1%	9%
11	87	3%	8%
12	95	3%	1%
13	93	4%	-2%
14	93	2%	2%
15	87	9%	-5%
16	95	2%	0%



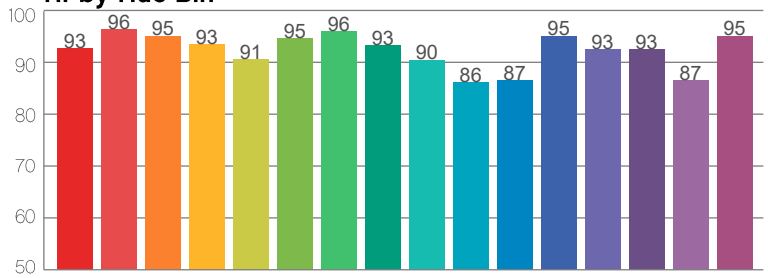
Color Vector Graphic



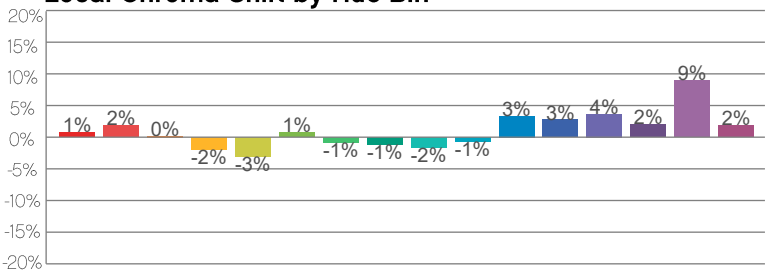
Color Distortion Graphic



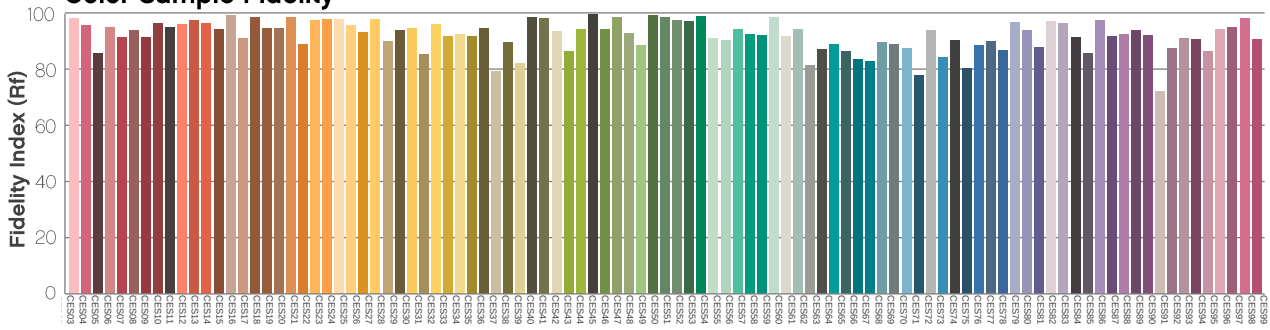
Rf by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



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