PHOTOMETRICS REPORT

OVATION
B-1965FC

CHAUVET PROFESSIONAL

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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 B-1965FC: Wall Wash Filter, Full Power

Report Summary

Output

Total Lumens: 18849 lm
Peak Intensity: 39990 cd
Illuminance @ 5m: 1597 lux
Fixture Efficacy: 45 lm/W

Optical

Horizontal Beam Angle (50%): 40.6°
Vertical Beam Angle (50%): 23.8°
Horizontal Field Angle (10%): 84.9°
Vertical Field Angle (10%): 46°
Horizontal Cutoff Angle (3%): 171.9°
Vertical Cutoff Angle (3%): 71.6°

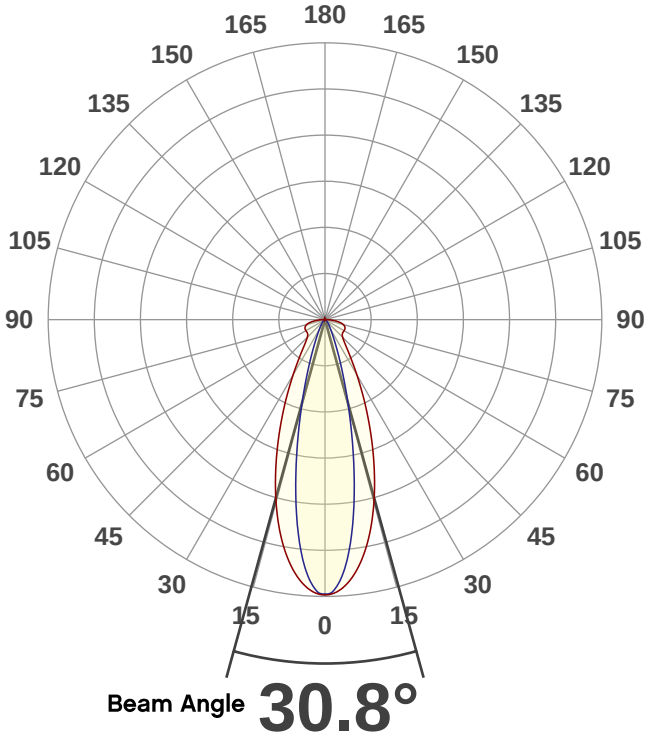
Conditions

AC Supply: 118 V, 0 Hz
Power: 422.96 W
Current: 3.59 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 9/20/2019 to LM-63-2002 Standards.

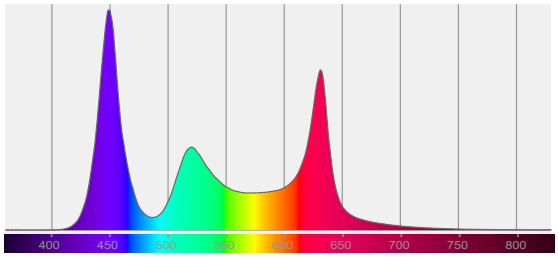
Overall Measurement

Angular Beam Distribution

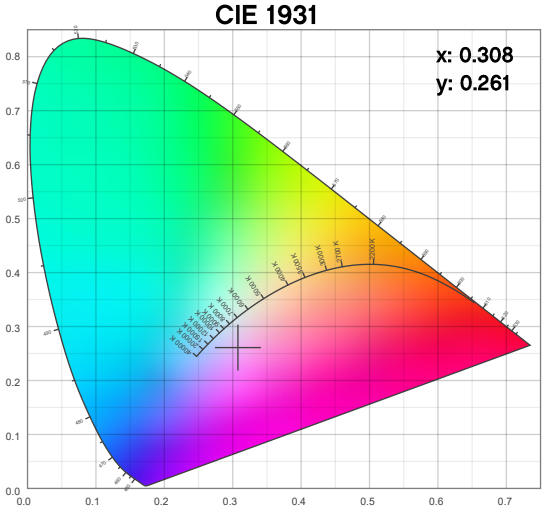


Beam Angle **30.8°**

Spectral Distribution



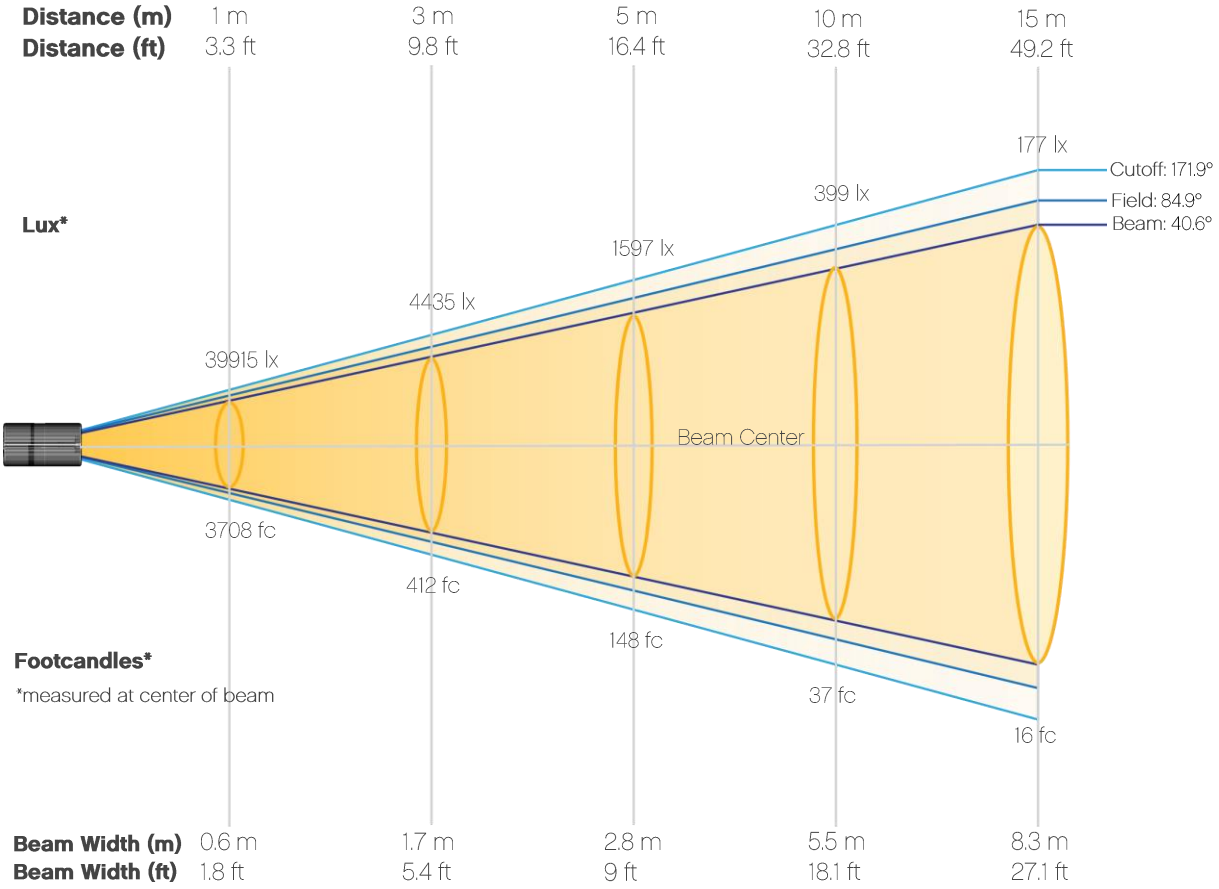
CIE 1931



Photometric Report

Ovation B-1965FC: Wall Wash Filter, Full Power

Beam Details



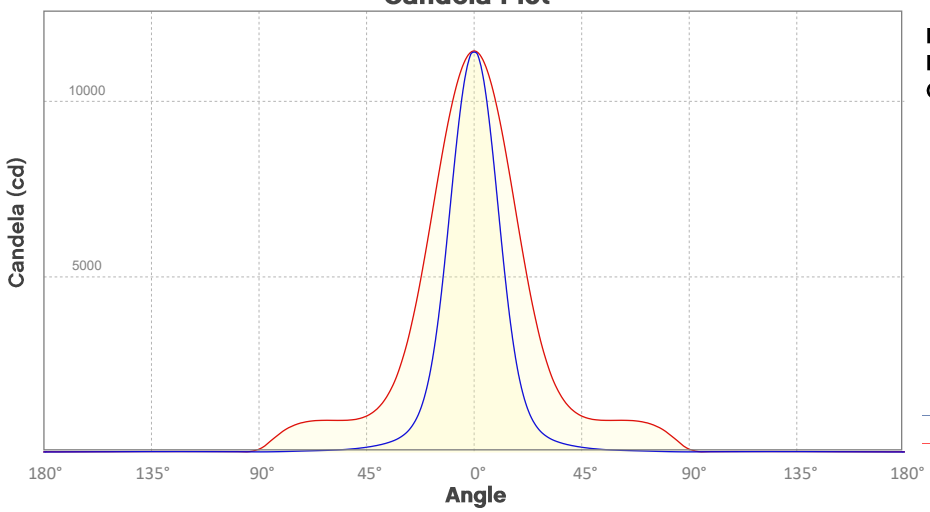
Beam Illuminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	39915	9979	4435	2495	1597	1109	815	624	493	399
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	330	277	236	204	177	156	138	123	111	100
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	3708	927	412	232	148	103	76	58	46	37
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	31	26	22	19	16	14	13	11	10	9

Photometric Report

Ovation B-1965FC: Wall Wash Filter, Full Power

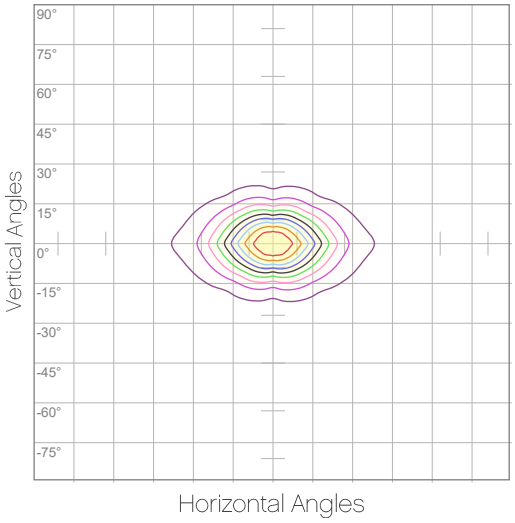
Candela Plot



Beam Angle (50%): 30.8°
Field Angle (10%): 60.9°
Cutoff Angle (3%): 102.7°

Horizontal Distribution
Vertical Distribution

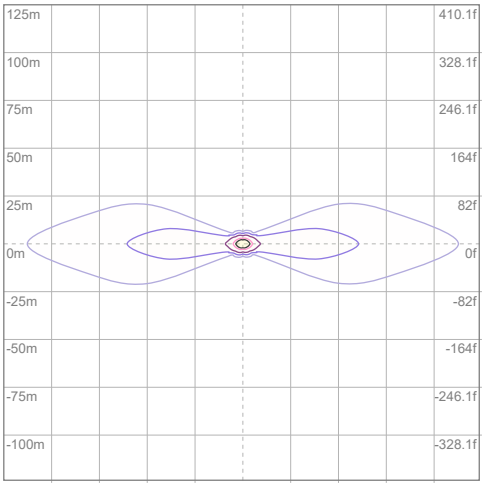
Polar Diagrams



iso-candela Diagram

10%	3991 cd
20%	7983 cd
30%	11974 cd
40%	15966 cd
50%	19957 cd
60%	23949 cd
70%	27940 cd
80%	31932 cd
90%	35923 cd

Conditions:
Number of c-planes: 8
Candela at center: 39915 cd



iso-illuminance Diagram

3%	12.0 lx
5%	20.0 lx
10%	39.9 lx
30%	120 lx
50%	200 lx

Conditions:
Number of c-planes: 8
Lux at center: 399 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 B-1965FC: Standard Optics, Full Power

Report Summary

Output

Total Lumens: 22832 lm
Peak Intensity: 112320 cd
Illuminance @ 5m: 4490 lux
Fixture Efficacy: 55 lm/W

Optical

Horizontal Beam Angle (50%): 23.8°
Vertical Beam Angle (50%): 23.6°
Horizontal Field Angle (10%): 40.6°
Vertical Field Angle (10%): 40°
Horizontal Cutoff Angle (3%): 54.9°
Vertical Cutoff Angle (3%): 54.1°

Conditions

AC Supply: 118 V, 0 Hz
Power: 413.74 W
Current: 3.52 A
Power Factor: 1.0

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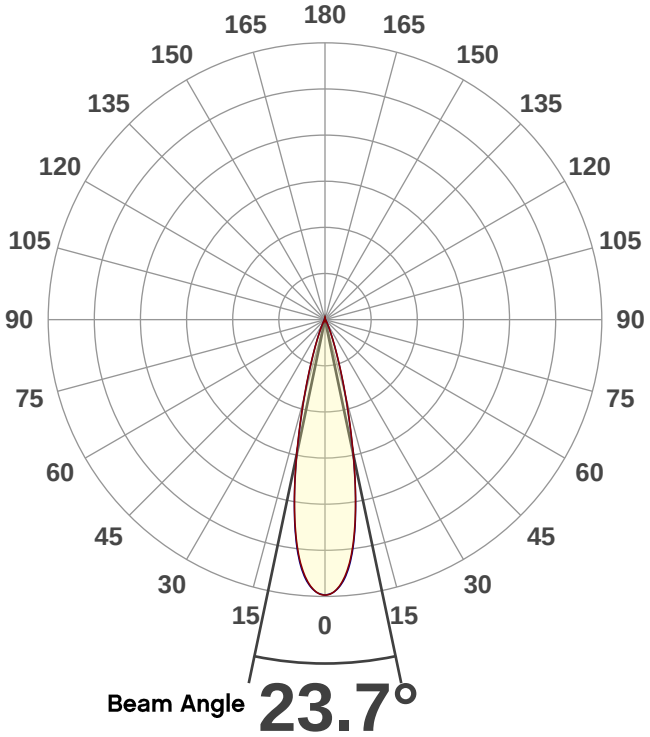
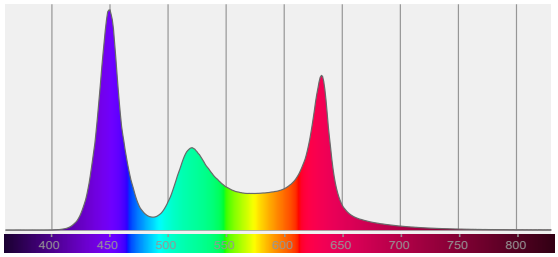
Overall Measurement

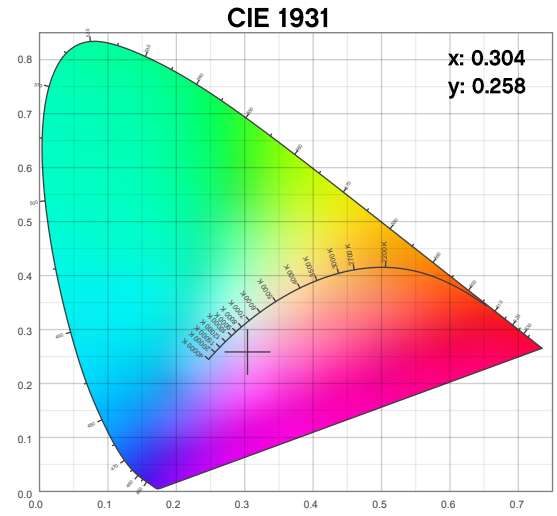
Angular Beam Distribution



Spectral Distribution



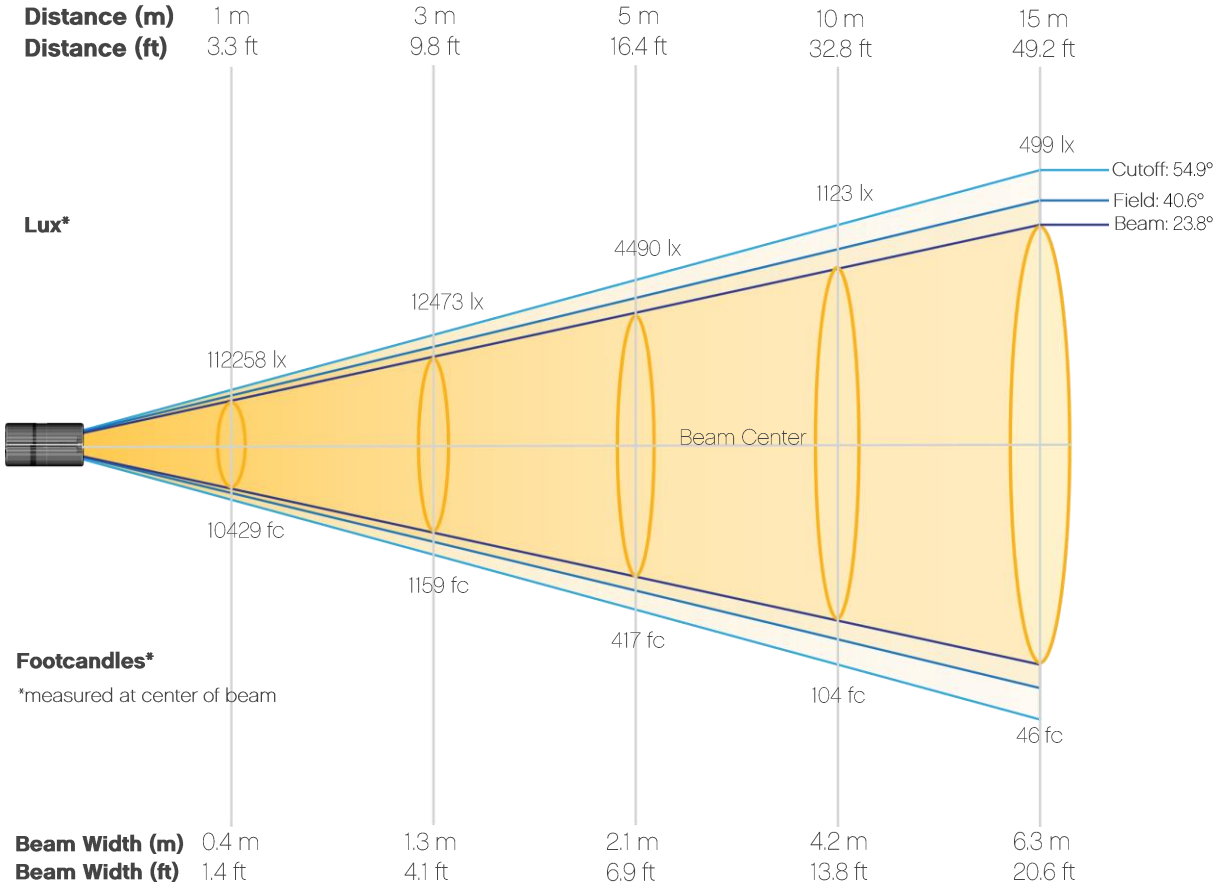
CIE 1931



Photometric Report

Ovation B-1965FC: Standard Optics, Full Power

Beam Details



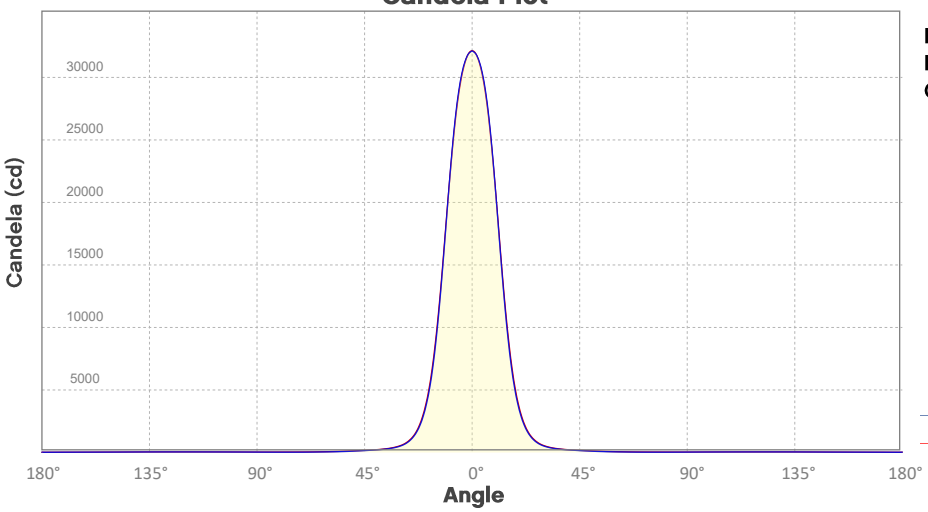
Beam Iluminances from 1-20m (3.3-65.6ft)

Distance	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
Lux	112258	28064	12473	7016	4490	3118	2291	1754	1386	1123
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	928	780	664	573	499	439	388	346	311	281
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	10429	2607	1159	652	417	290	213	163	129	104
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	86	72	62	53	46	41	36	32	29	26

Photometric Report

Ovation B-1965FC: Standard Optics, Full Power

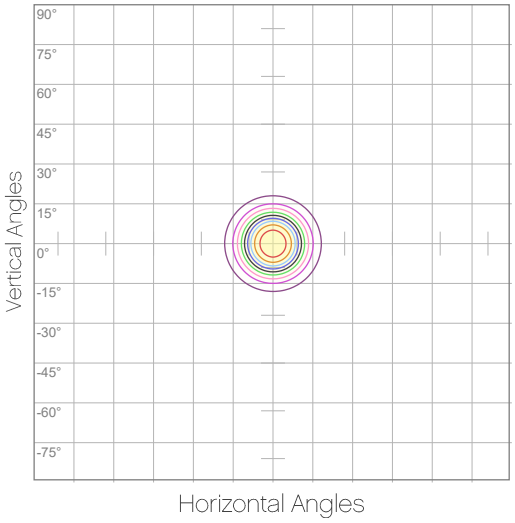
Candela Plot



Beam Angle (50%): 23.7°
Field Angle (10%): 40.3°
Cutoff Angle (3%): 54.6°

Horizontal Distribution
Vertical Distribution

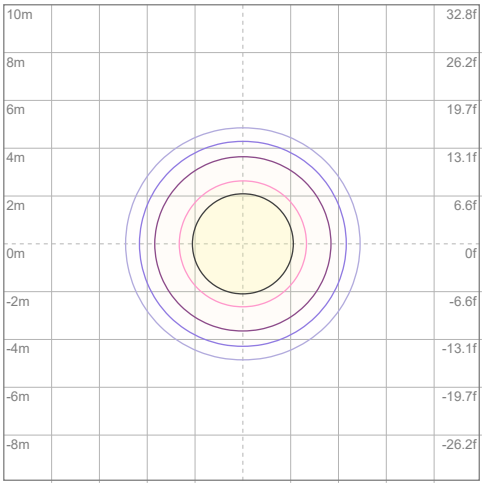
Polar Diagrams



iso-candela Diagram

10%	11226 cd
20%	22452 cd
30%	33677 cd
40%	44903 cd
50%	56129 cd
60%	67355 cd
70%	78580 cd
80%	89806 cd
90%	101032 cd

Conditions:
Number of c-planes: 8
Candela at center: 112258 cd



iso-illuminance Diagram

3%	33.7 lx
5%	56.1 lx
10%	112 lx
30%	337 lx
50%	561 lx

Conditions:
Number of c-planes: 8
Lux at center: 1123 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 B-1965FC: 3200K

Report Summary

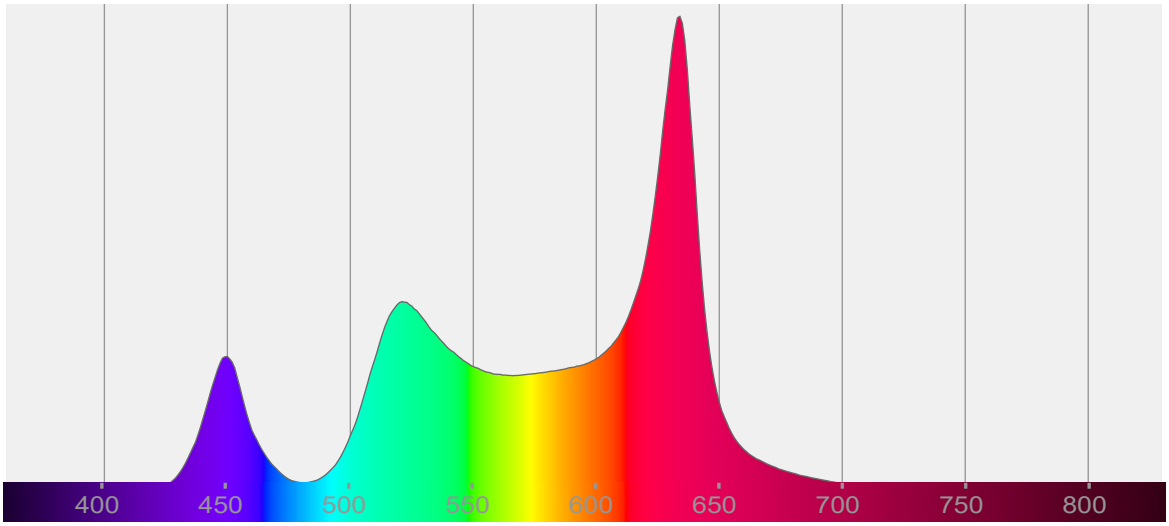
Measurements

Total Lumens: 4694 lm
Peak Intensity: 23903 cd
Fixture Efficacy: 17 lm/W

Correlated Color Temperature: 3211K
Δuv: 0.0020

CRI: 82.2 CRI R9 Value: 46.6
CQS: 86.4
TLCI: 66
TM-30-18 Rf: 87.0
TM-30-18 Rg: 111.9
1st Dominant Wavelength: 634 nM
2nd Dominant Wavelength: 521 nM

Spectral Distribution



Tested Color

3211 K
CIE 1931 Coordinates:
X: 0.425 Y: 0.405

Color Temperature

3211 K

Light Quality

CRI: 82.2

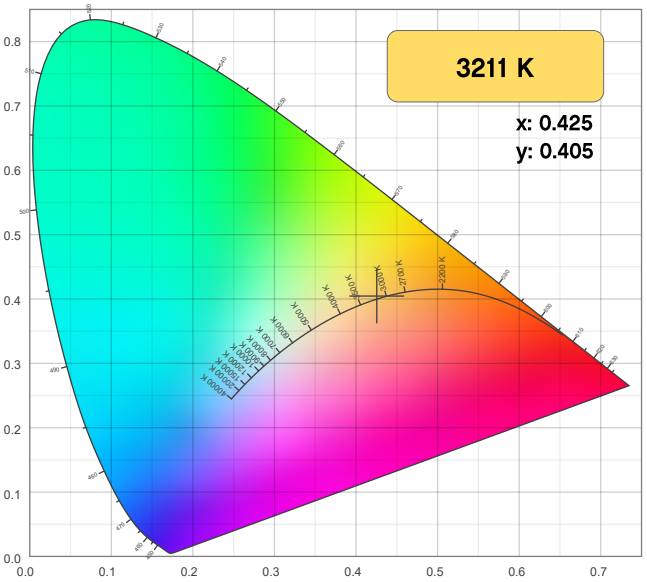
Notes:

Chromaticity Report

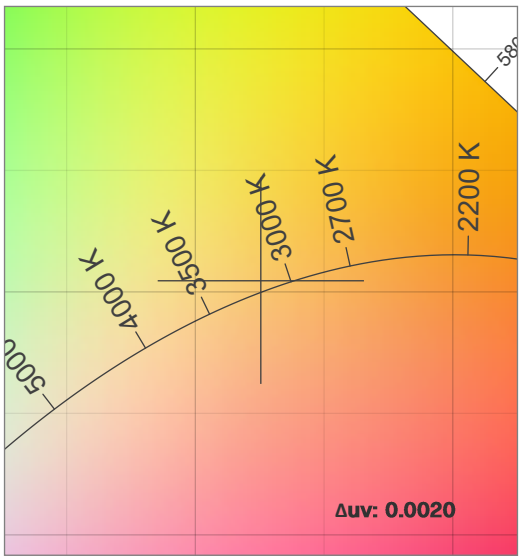
Ovation B-1965FC: 3200K

Chromaticity

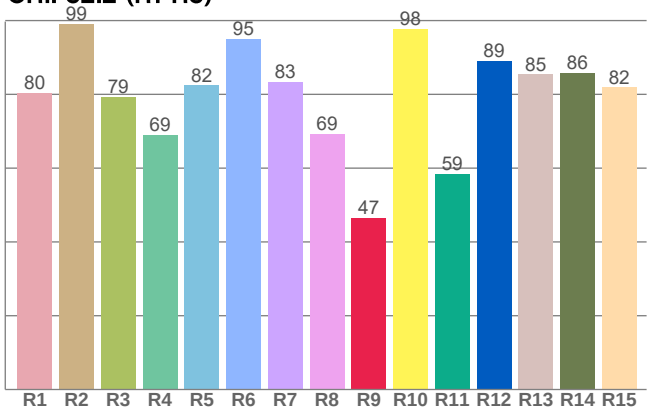
CIE 1931



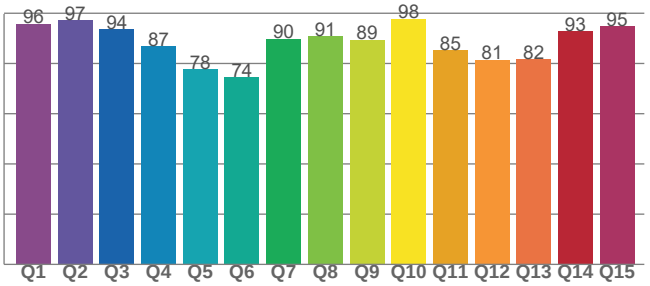
CIE 1931 - Zoom



CRI: 82.2 (R1-R8)



CQS: 86.4



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3211 K	0.425	0.405

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0020	0.405	0.243

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
82.2	46.6	86.4

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
66	87.0	111.9

Chromaticity Report

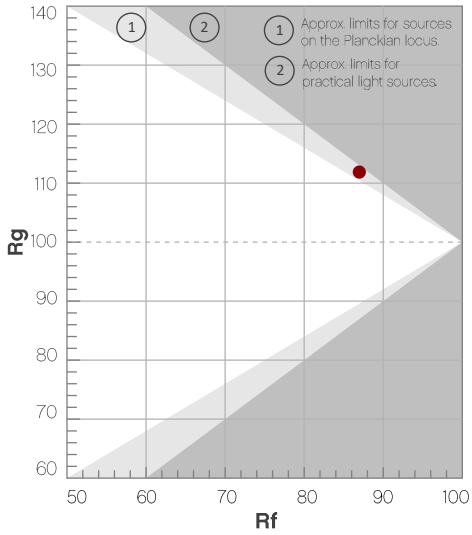
Ovation B-1965FC: 3200K

TM-30-18 Details

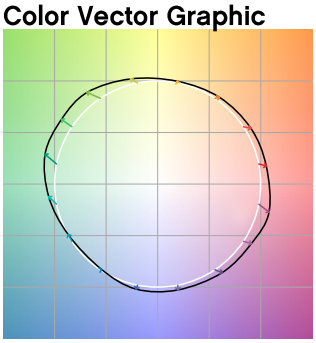
Rf 87.0
Fidelity Index (Rg)

Rg 111.9
Gamut Index (Rg)

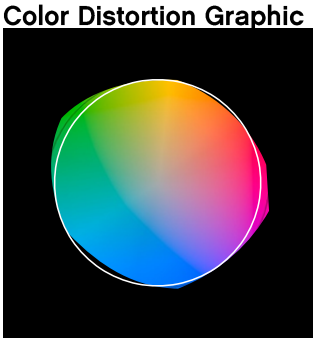
Hue Bin	R_f	Chroma Shift	Hue Shift
1	85	7%	-3%
2	86	5%	-5%
3	87	3%	-3%
4	93	2%	1%
5	88	5%	6%
6	79	12%	8%
7	80	12%	0%
8	77	13%	-7%
9	84	6%	-9%
10	87	-1%	-7%
11	93	-1%	1%
12	91	4%	-1%
13	92	5%	-1%
14	90	6%	4%
15	87	8%	3%
16	85	11%	-6%



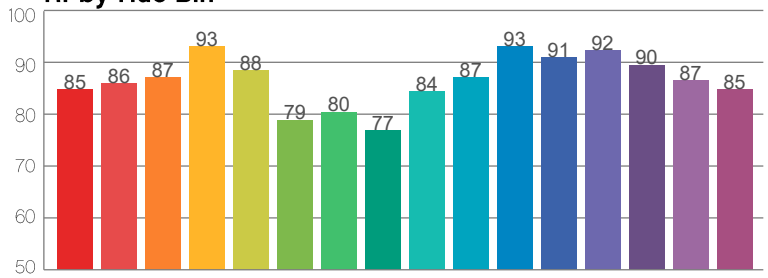
Color Vector Graphic



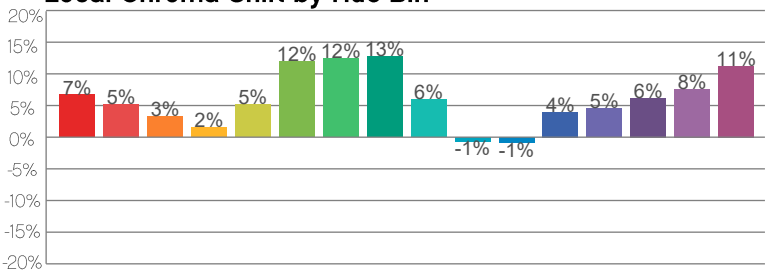
Color Distortion Graphic



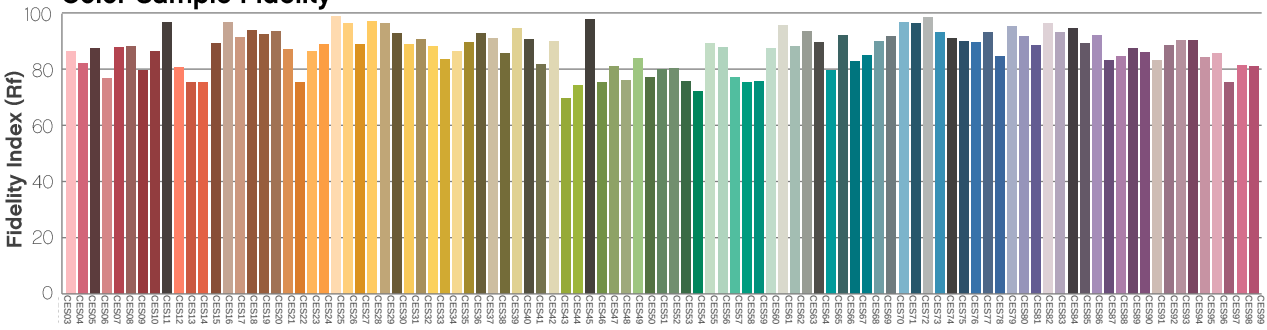
Rf by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



Chromaticity Report

Ovation B-1965FC: 5600K

Report Summary

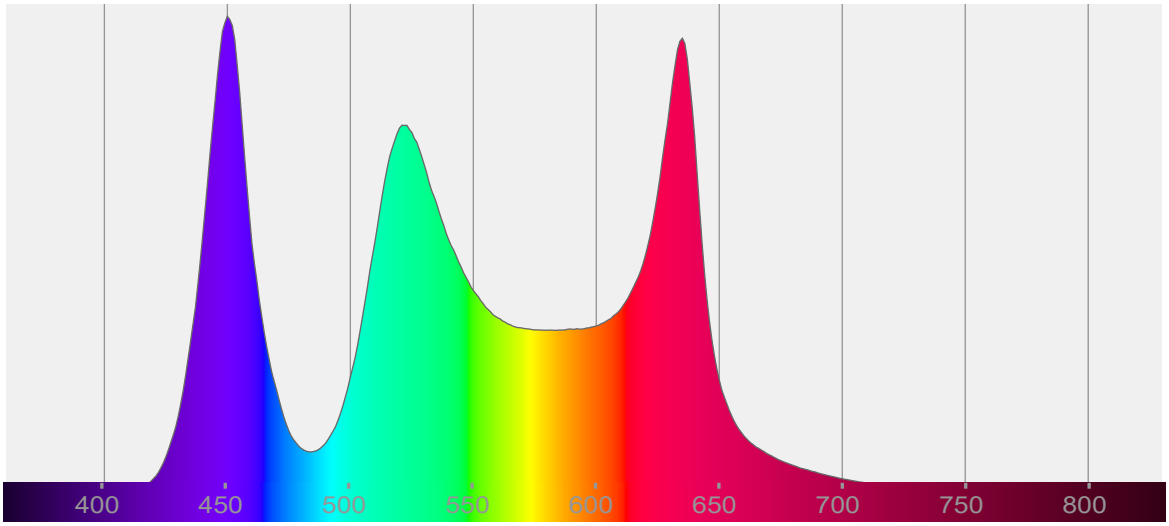
Measurements

Total Lumens: 18959 lm
Peak Intensity: 94281 cd
Fixture Efficacy: 58 lm/W

Correlated Color Temperature: 5593K
Δuv: -0.0004

CRI: 82.6 CRI R9 Value: 41.2
CQS: 89.1
TLCI: 78
TM-30-18 Rf: 85.8
TM-30-18 Rg: 111.7
1st Dominant Wavelength: 450 nM
2nd Dominant Wavelength: 635 nM

Spectral Distribution



Tested Color

5593 K
CIE 1931 Coordinates:
X: 0.330 Y: 0.345

Color Temperature

5593 K

Light Quality

CRI: 82.6

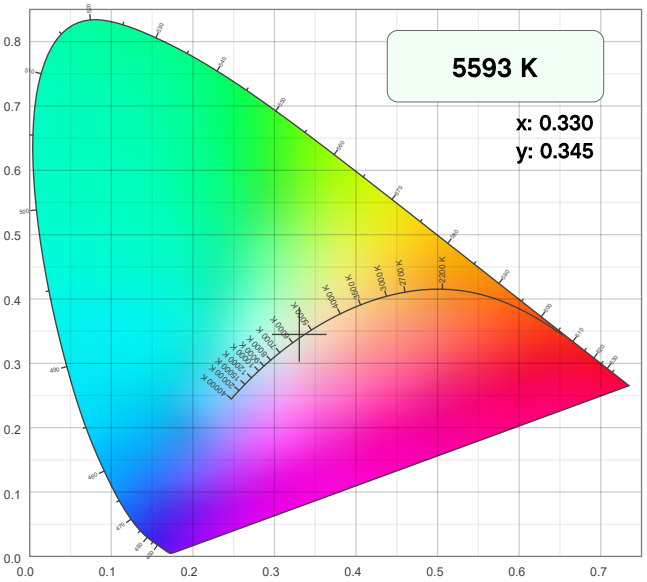
Notes:

Chromaticity Report

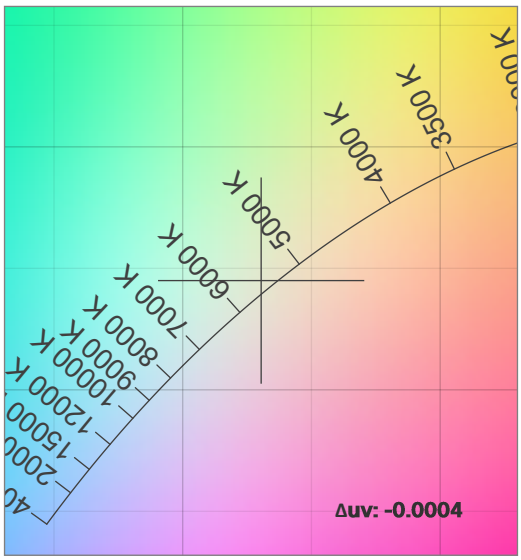
Ovation B-1965FC: 5600K

Chromaticity

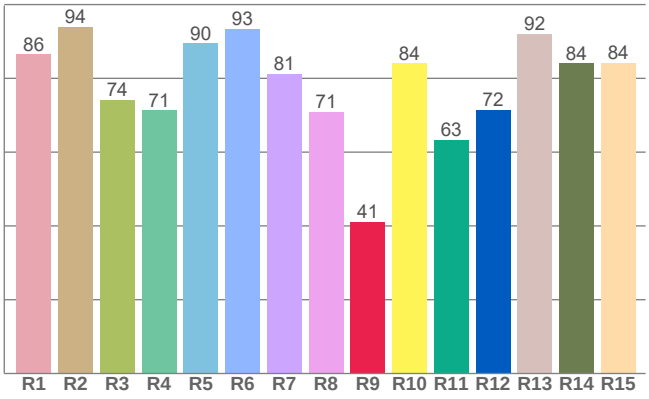
CIE 1931



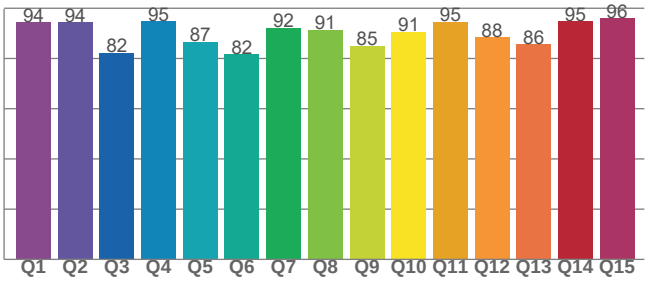
CIE 1931 - Zoom



CRI: 82.6 (R1-R8)



CQS: 89.1



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
5593 K	0.330	0.345

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
-0.0004	0.345	0.204

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
82.6	41.2	89.1

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
78	85.8	111.7

Chromaticity Report

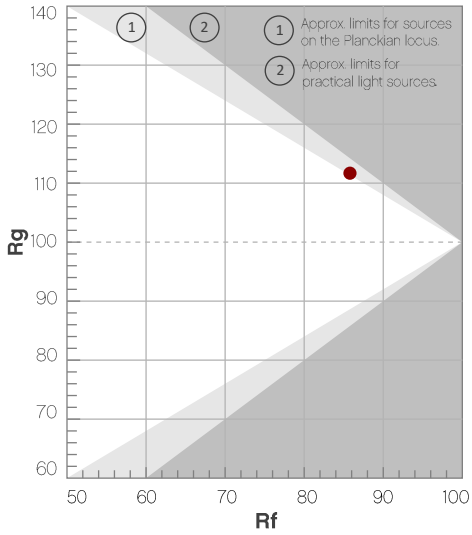
Ovation B-1965FC: 5600K

TM-30-18 Details

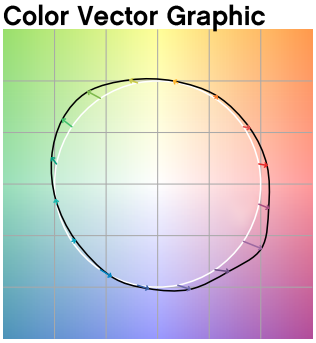
Rf 85.8
Fidelity Index (Rg)

Rg 111.7
Gamut Index (Rg)

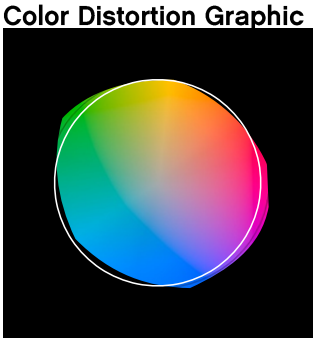
Hue Bin	R_f	Chroma Shift	Hue Shift
1	84	7%	-3%
2	89	4%	-4%
3	92	3%	0%
4	92	1%	4%
5	86	4%	7%
6	80	12%	6%
7	82	12%	-1%
8	86	6%	-5%
9	92	0%	-4%
10	93	-3%	1%
11	81	0%	12%
12	84	1%	11%
13	86	6%	11%
14	79	9%	10%
15	80	18%	4%
16	82	10%	-2%



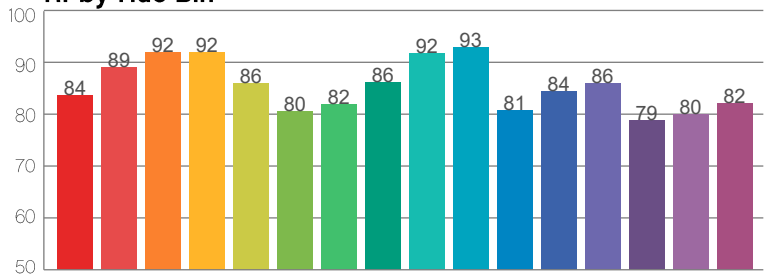
Color Vector Graphic



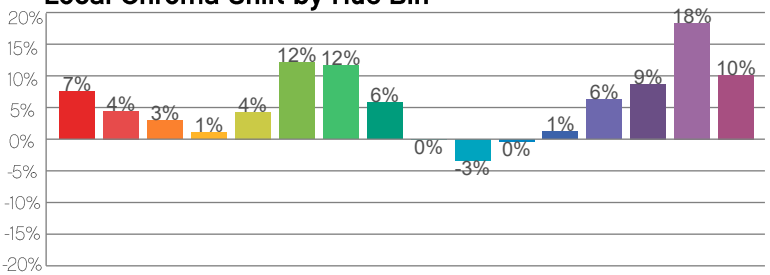
Color Distortion Graphic



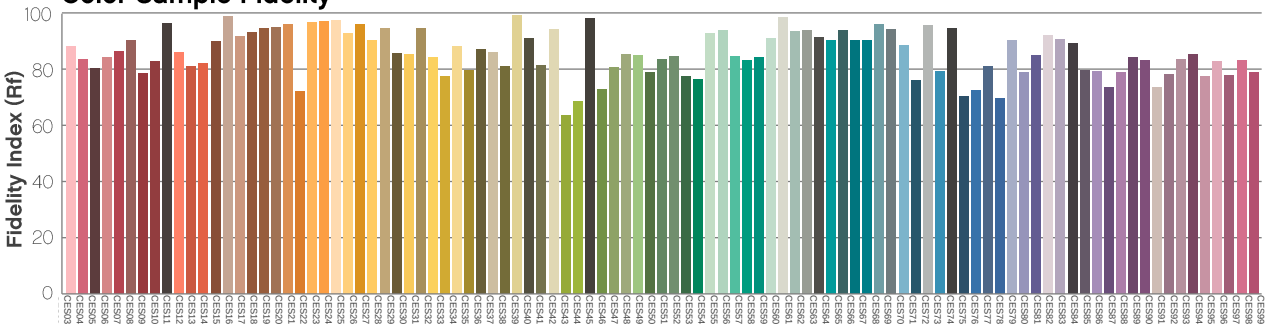
Rf by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



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