PHOTOMETRICS REPORT

OVATION
B-2805FC

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-2805FC: Wall Wash Filter, Full Power

Report Summary

Output

Total Lumens: 26927 lm
Peak Intensity: 57128 cd
Illuminance @ 5m: 2281 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°

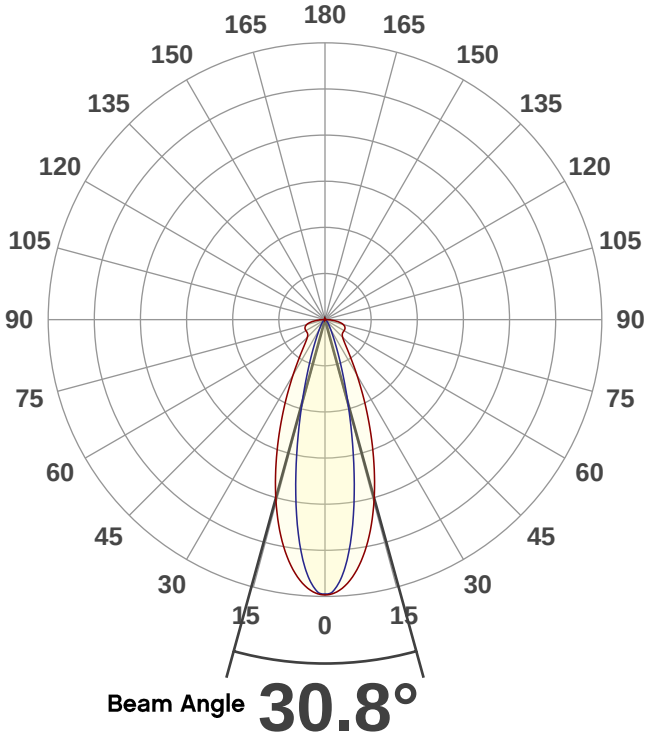
Conditions

AC Supply: 118 V, 0 Hz
Power: 604.24 W
Current: 5.14 A
Power Factor: 1.0

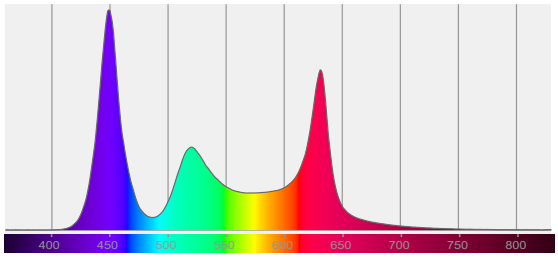
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 9/20/2019 to LM-63-2002 Standards.

Overall Measurement

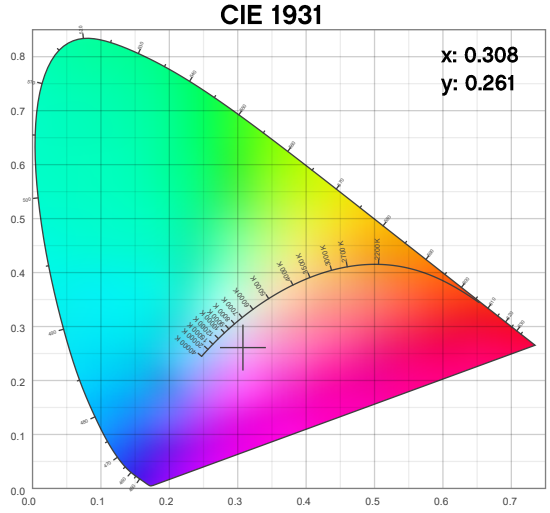
Angular Beam Distribution



Spectral Distribution



CIE 1931



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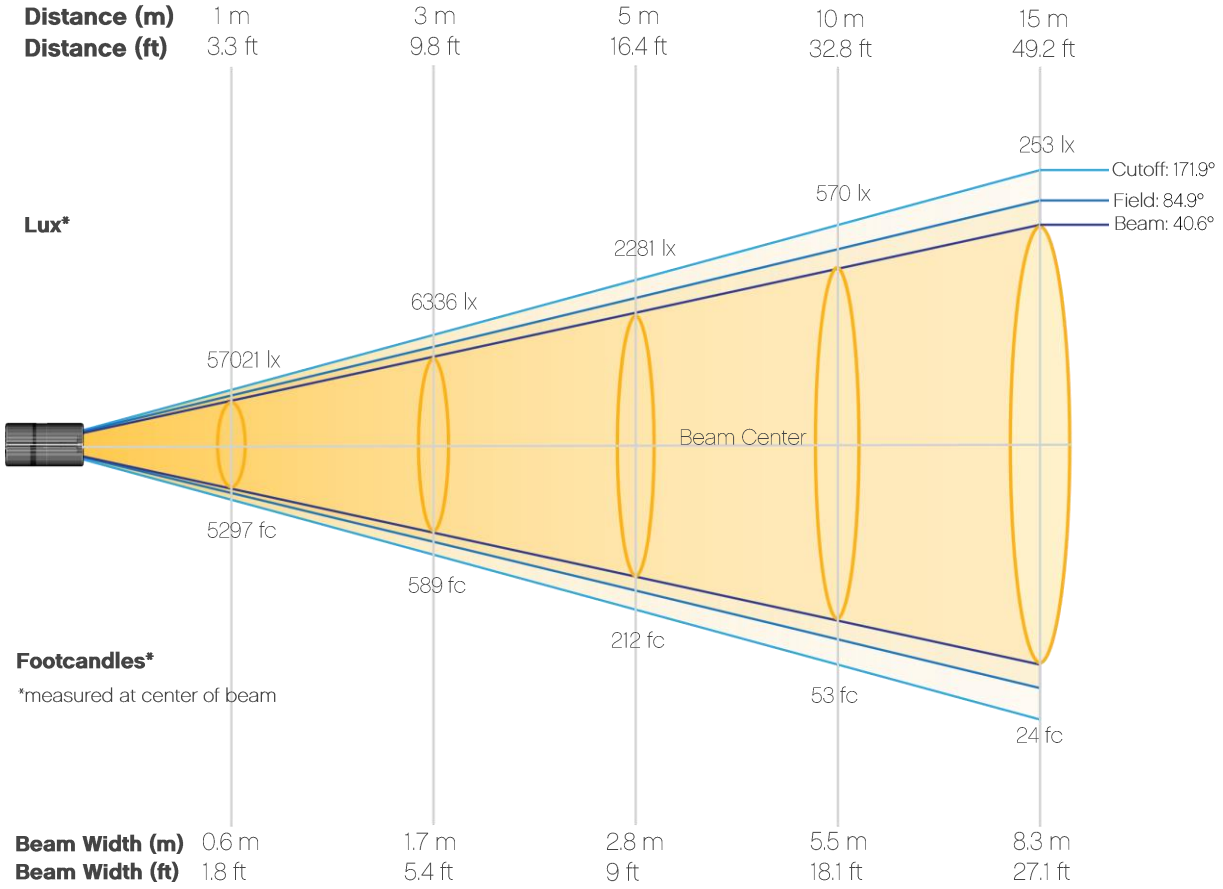
Photometric Report

Ovation B-2805FC: 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	57021	14255	6336	3564	2281	1584	1164	891	704	570
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	471	396	337	291	253	223	197	176	158	143
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	5297	1324	589	331	212	147	108	83	65	53
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	44	37	31	27	24	21	18	16	15	13

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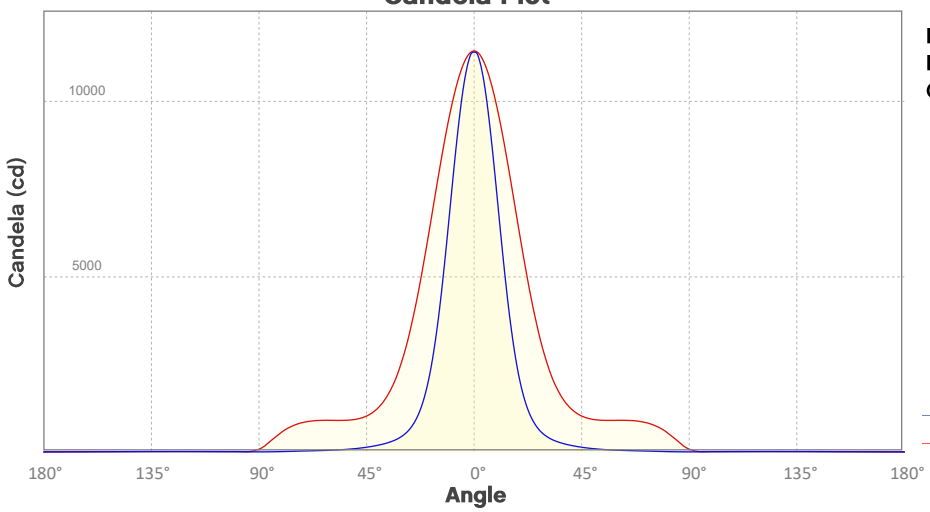
Photometric Report

Ovation B-2805FC: Wall Wash Filter, Full Power

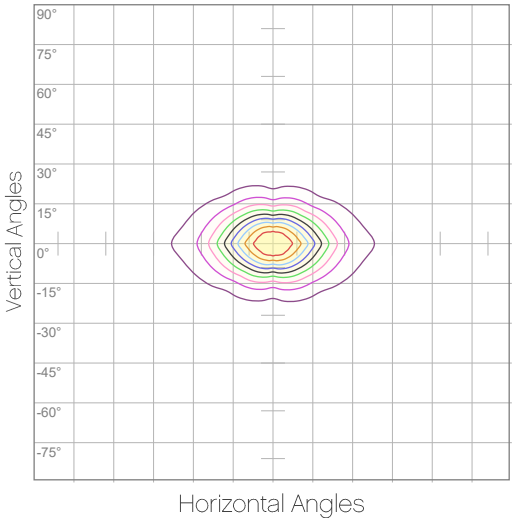
Candela Plot



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

Horizontal Distribution
Vertical Distribution

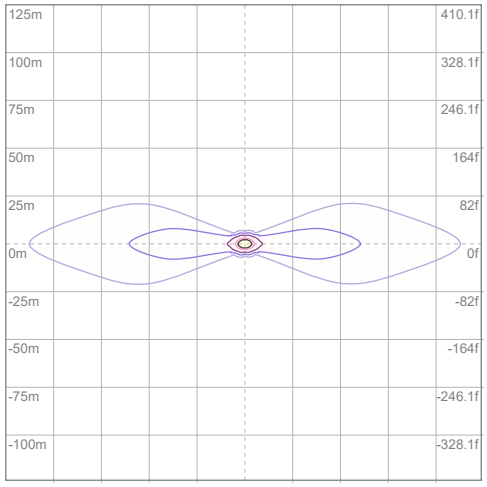
Polar Diagrams



iso-candela Diagram

10%	5702 cd
20%	11404 cd
30%	17106 cd
40%	22808 cd
50%	28510 cd
60%	34212 cd
70%	39915 cd
80%	45617 cd
90%	51319 cd

Conditions:
Number of c-planes: 8
Candela at center: 57021 cd



iso-illuminance Diagram

3%	17.1 lx
5%	28.5 lx
10%	57.0 lx
30%	171 lx
50%	285 lx

Conditions:
Number of c-planes: 8
Lux at center: 570 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

Mounting height: 10 meters / 33 feet

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Photometric Report

Ovation B-2805FC: Standard Optics, Full Power

Report Summary

Output

Total Lumens: 32617 lm
Peak Intensity: 160458 cd
Illuminance @ 5m: 6415 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: 593.58 W
Current: 5.05 A
Power Factor: 1.0

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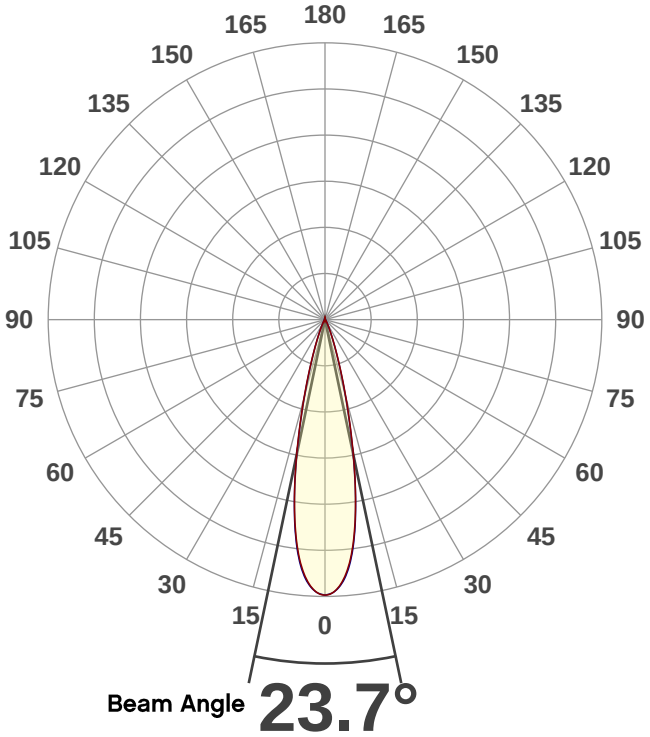
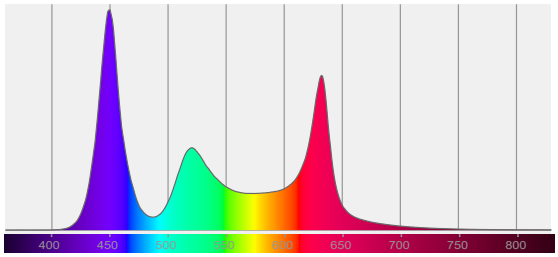
Overall Measurement

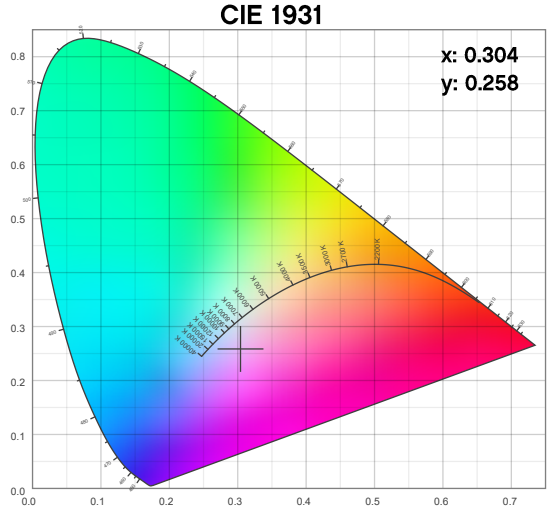
Angular Beam Distribution



Spectral Distribution



CIE 1931



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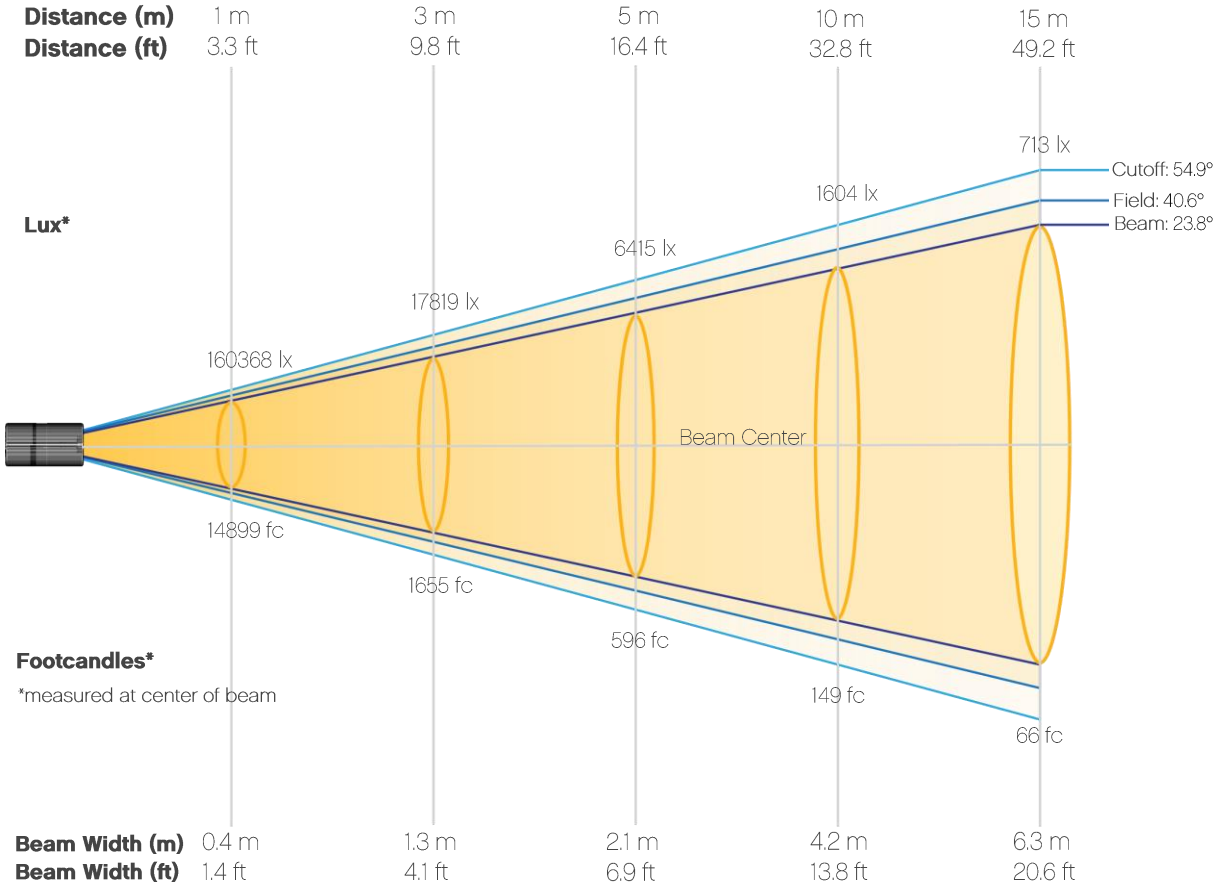
Photometric Report

Ovation B-2805FC: 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	160368	40092	17819	10023	6415	4455	3273	2506	1980	1604
Distance	**11m**	**12m**	**13m**	**14m**	**15m**	**16m**	**17m**	**18m**	**19m**	**20m**
Lux	1325	1114	949	818	713	626	555	495	444	401
Distance	**3.3ft**	**6.6ft**	**9.8ft**	**13.1ft**	**16.4ft**	**19.7ft**	**23ft**	**26.2ft**	**29.5ft**	**32.8ft**
FC	14899	3725	1655	931	596	414	304	233	184	149
Distance	**36.1ft**	**39.4ft**	**42.7ft**	**45.9ft**	**49.2ft**	**52.5ft**	**55.8ft**	**59.1ft**	**62.3ft**	**65.6ft**
FC	123	103	88	76	66	58	52	46	41	37

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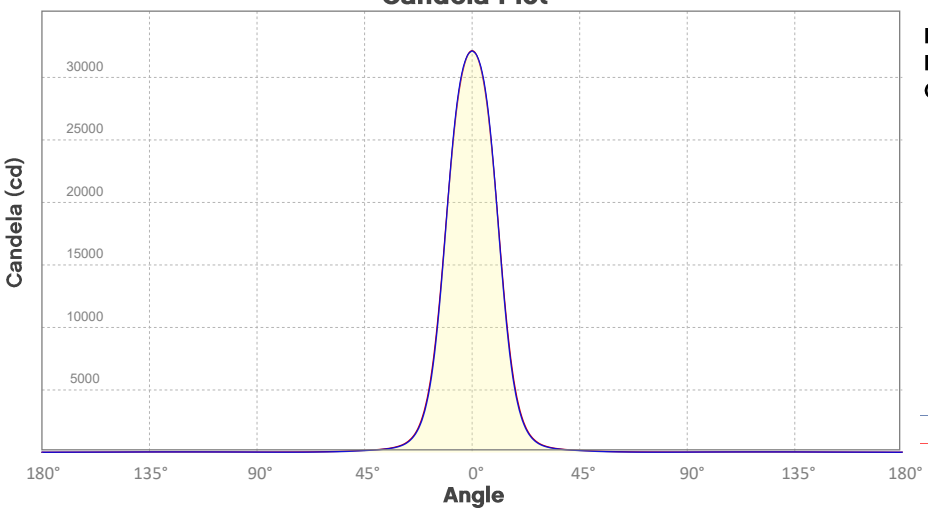
Photometric Report

Ovation B-2805FC: Standard Optics, Full Power

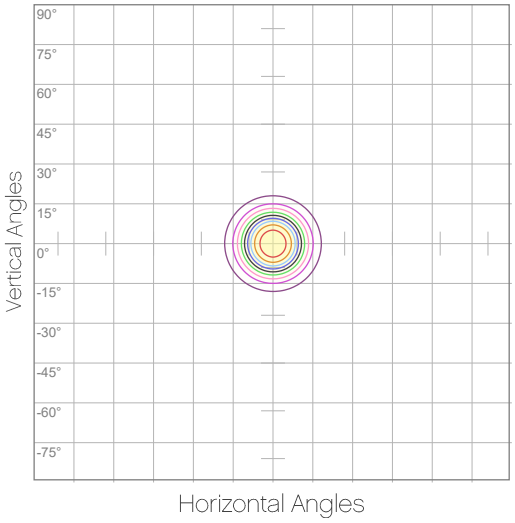
Candela Plot



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

Horizontal Distribution
Vertical Distribution

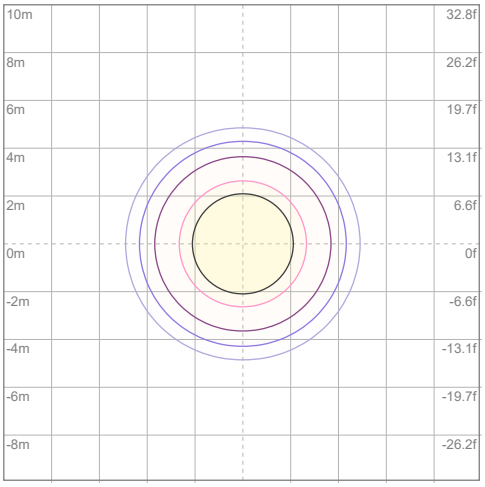
Polar Diagrams



iso-candela Diagram

10%	16037 cd
20%	32074 cd
30%	48110 cd
40%	64147 cd
50%	80184 cd
60%	96221 cd
70%	112258 cd
80%	128294 cd
90%	144331 cd

Conditions:
Number of c-planes: 8
Candela at center: 160368 cd



iso-illuminance Diagram

3%	48.1 lx
5%	80.2 lx
10%	160 lx
30%	481 lx
50%	802 lx

Conditions:
Number of c-planes: 8
Lux at center: 1604 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

Mounting height: 10 meters / 33 feet

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Chromaticity Report

Ovation B-2805FC: 3200K

Report Summary

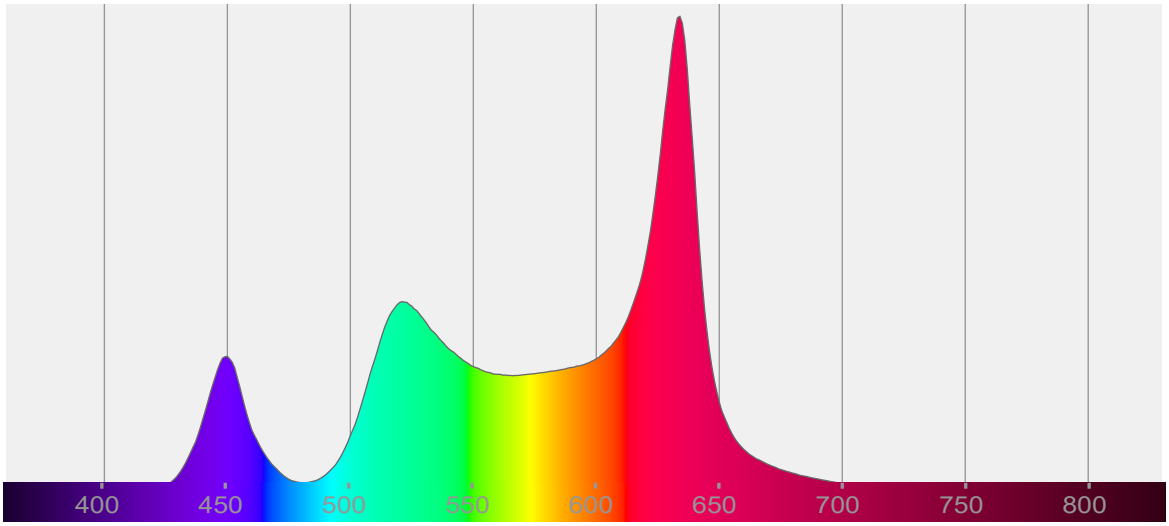
Measurements

Total Lumens: 23469 lm
Peak Intensity: 119517 cd
Fixture Efficacy: 59 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:

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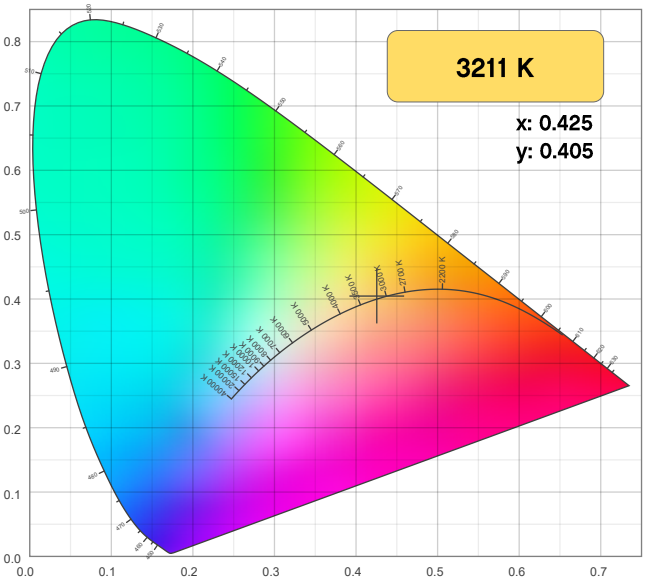
Chromaticity Report

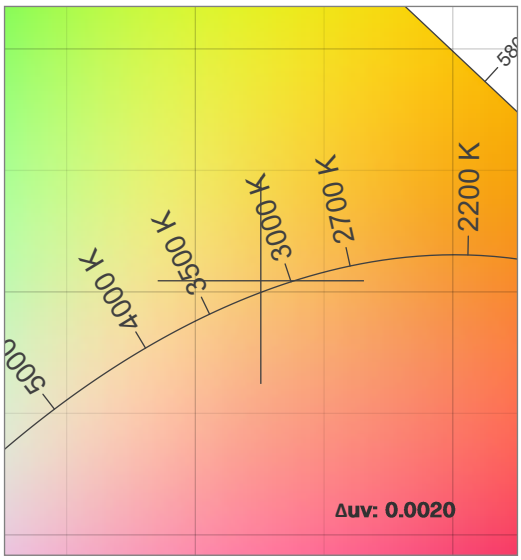
Ovation B-2805FC: 3200K

Chromaticity

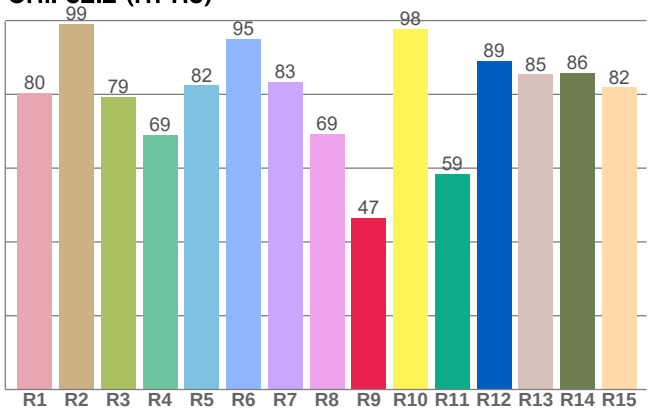
CIE 1931



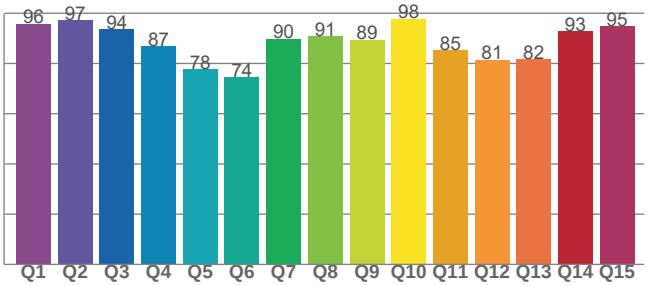
CIE 1931 - Zoom



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

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Chromaticity Report

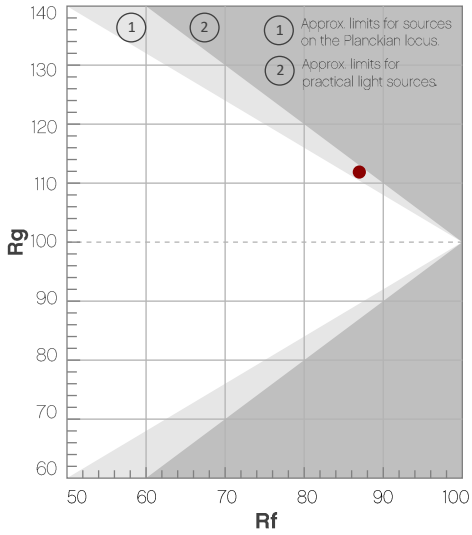
Ovation B-2805FC: 3200K

TM-30-18 Details

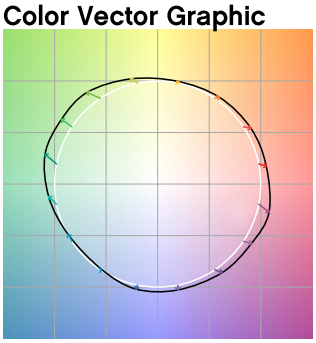
Rf 87.0
Fidelity Index (Rg)

Rg 111.9
Gamut Index (Rg)

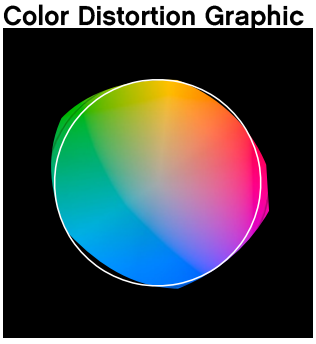
Hue Bin	R_f	Chroma Shift	Hue Shift
1	85	7%	-3%
2	86	5%	-5%
3	87	3%	-3%
4	93	2%	1%
5	88	5%	6%
6	79	12%	8%
7	80	12%	0%
8	77	13%	-7%
9	84	6%	-9%
10	87	-1%	-7%
11	93	-1%	1%
12	91	4%	-1%
13	92	5%	-1%
14	90	6%	4%
15	87	8%	3%
16	85	11%	-6%



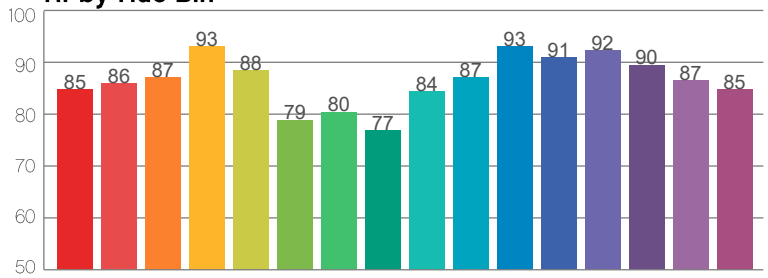
Color Vector Graphic



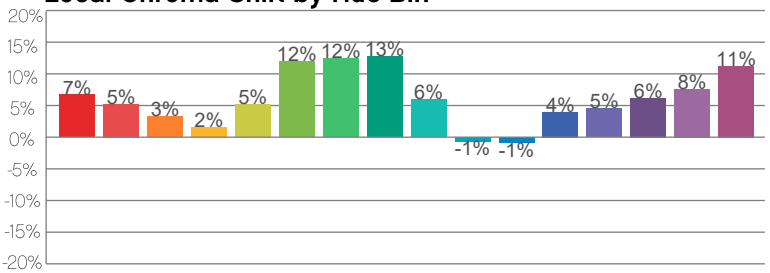
Color Distortion Graphic



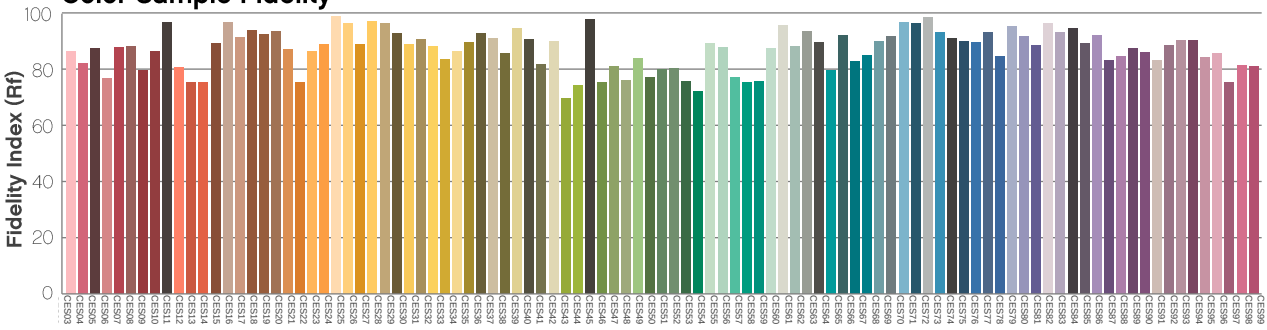
Rf by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



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Chromaticity Report

Ovation B-2805FC: 5600K

Report Summary

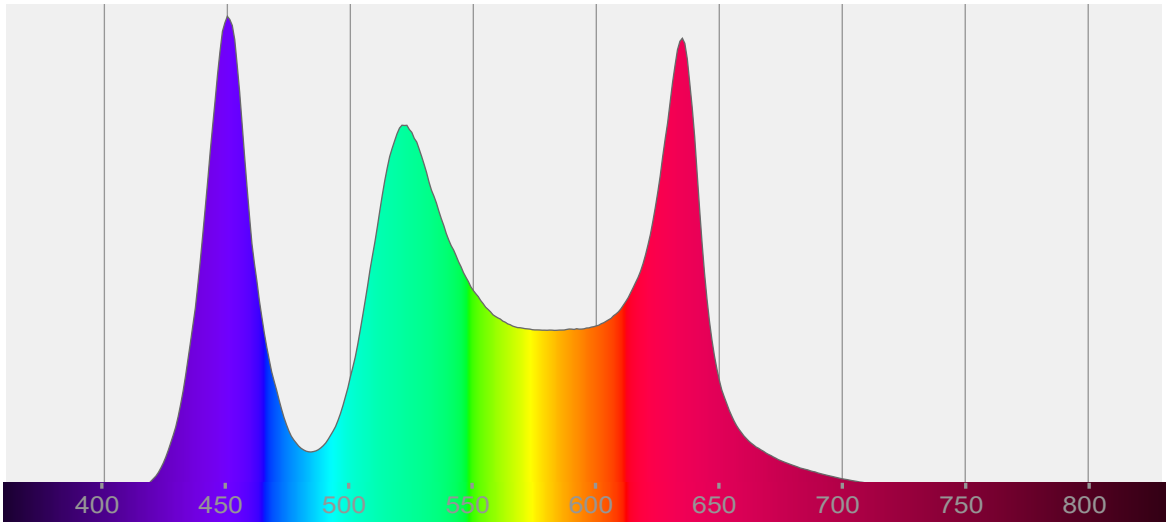
Measurements

Total Lumens: 27085 lm
Peak Intensity: 134688 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:

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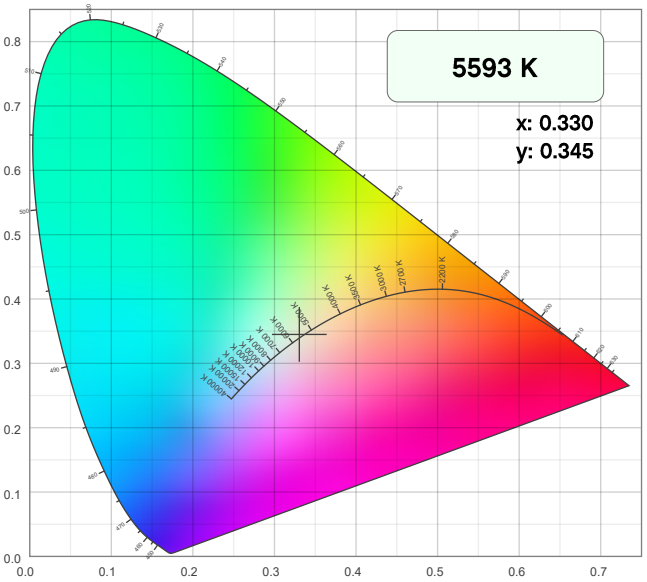
Chromaticity Report

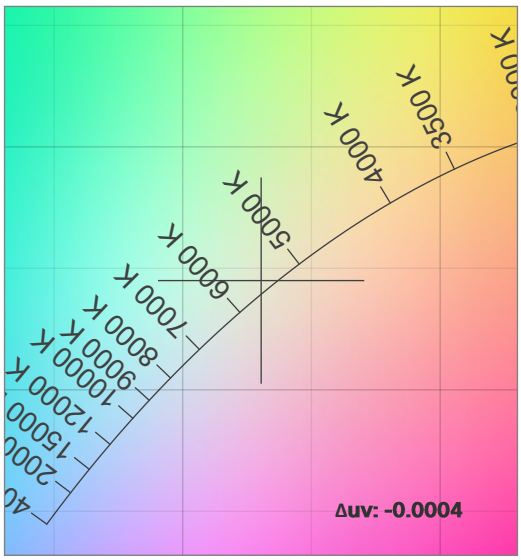
Ovation B-2805FC: 5600K

Chromaticity

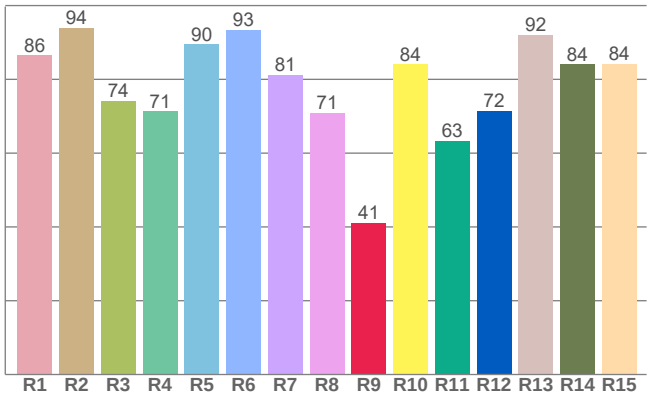
CIE 1931



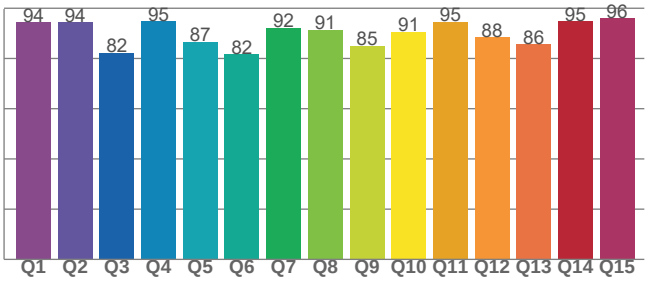
CIE 1931 - Zoom



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

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Chromaticity Report

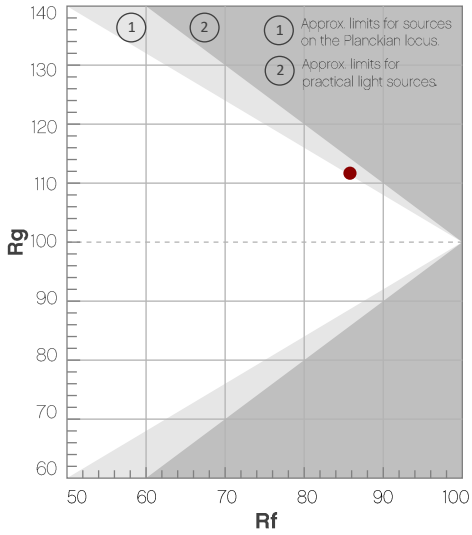
Ovation B-2805FC: 5600K

TM-30-18 Details

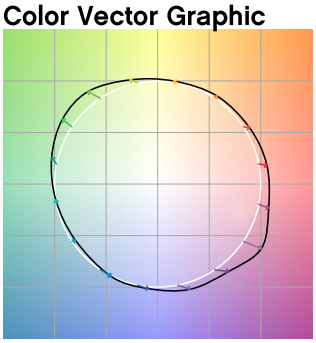
Rf 85.8
Fidelity Index (Rg)

Rg 111.7
Gamut Index (Rg)

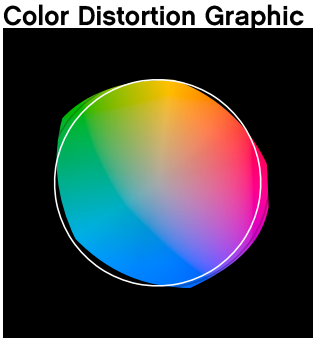
Hue Bin	R_f	Chroma Shift	Hue Shift
1	84	7%	-3%
2	89	4%	-4%
3	92	3%	0%
4	92	1%	4%
5	86	4%	7%
6	80	12%	6%
7	82	12%	-1%
8	86	6%	-5%
9	92	0%	-4%
10	93	-3%	1%
11	81	0%	12%
12	84	1%	11%
13	86	6%	11%
14	79	9%	10%
15	80	18%	4%
16	82	10%	-2%



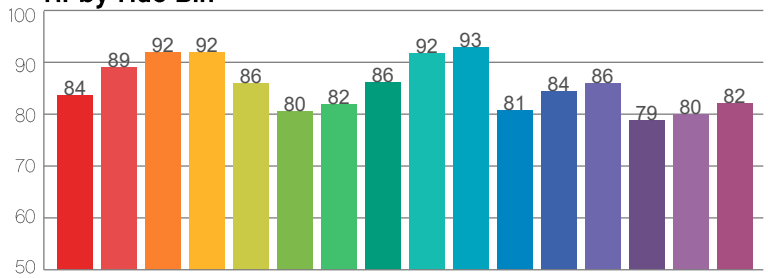
Color Vector Graphic



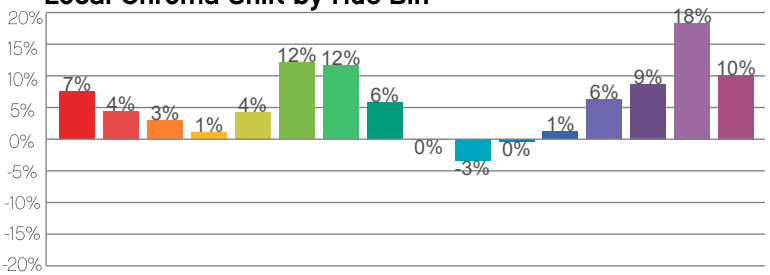
Color Distortion Graphic



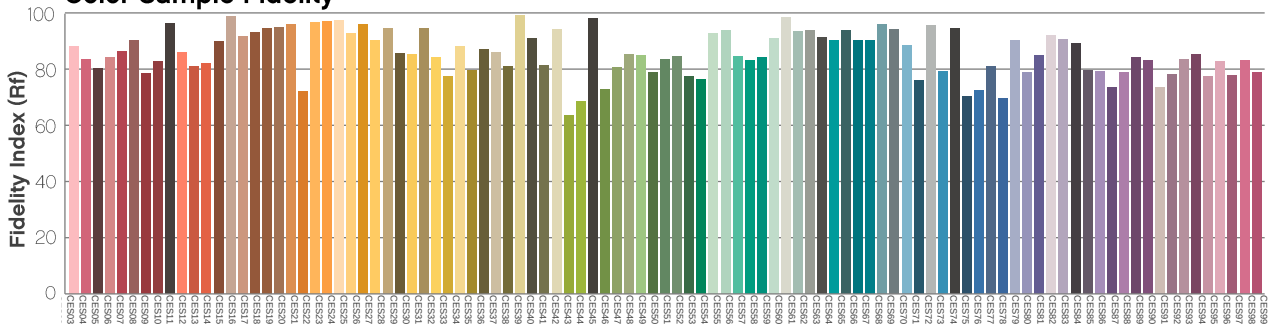
Rf by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



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