

PHOTOMETRICS REPORT

# OVATION

## CYC 3 FC



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## Testing Process

### Total Illuminance Measurements

Illuminance is measured using the Viso Systems LabSpion<sup>®</sup>, 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<sup>®</sup> 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<sup>®</sup> system every six months as recommended by Viso Systems.

**OVATION**  
CYC 3 FC

# **Photometrics & Chromaticity Reports**

# Photometric Report

Ovation CYC 3-FC: Standard Optics - Full Power

## Report Summary

### Output

Total Lumens: 19575 lm  
Peak Intensity: 9100 cd  
Illuminance @ 5m: 280 lux  
Fixture Efficacy: 54 lm/W

### Optical

Horizontal Beam Angle (50%): 111.4°  
Vertical Beam Angle (50%): 76.7°  
Horizontal Field Angle (10%): 151.8°  
Vertical Field Angle (10%): 134.4°  
Horizontal Cutoff Angle (3%): 171.1°  
Vertical Cutoff Angle (3%): 177.4°

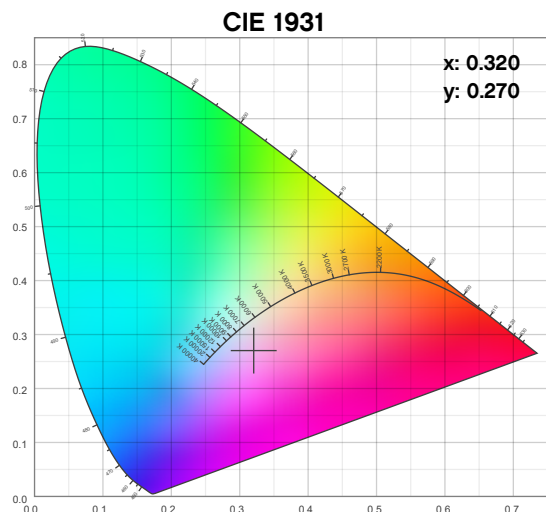
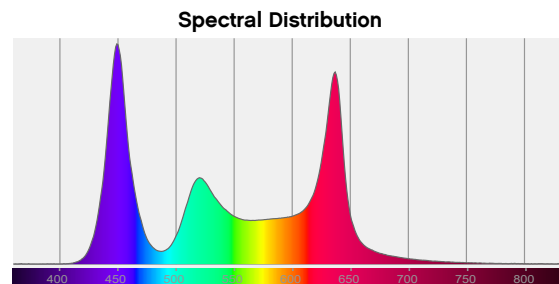
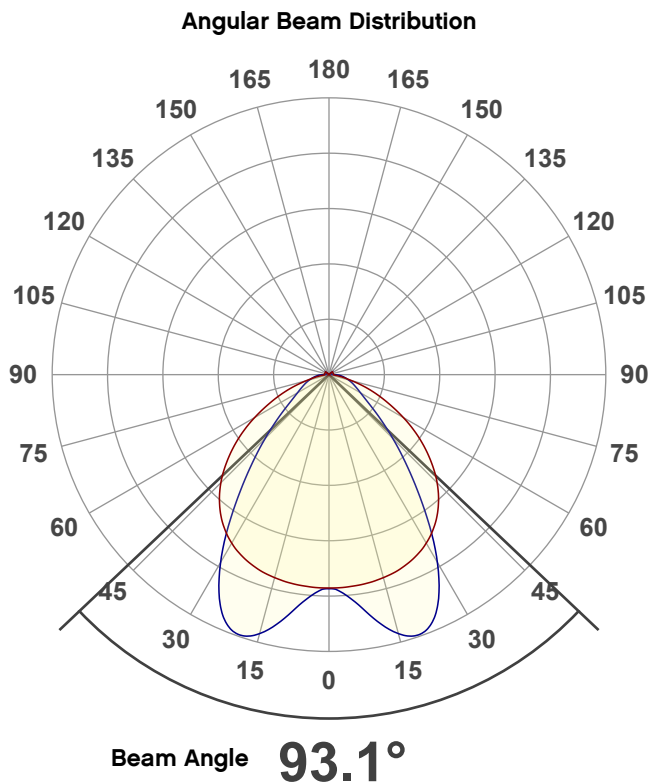


### Conditions

AC Supply: 116 V, 60 Hz  
Power: 365.85 W  
Current: 3.15 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 7/21/2022 to LM-63-2002 Standards.

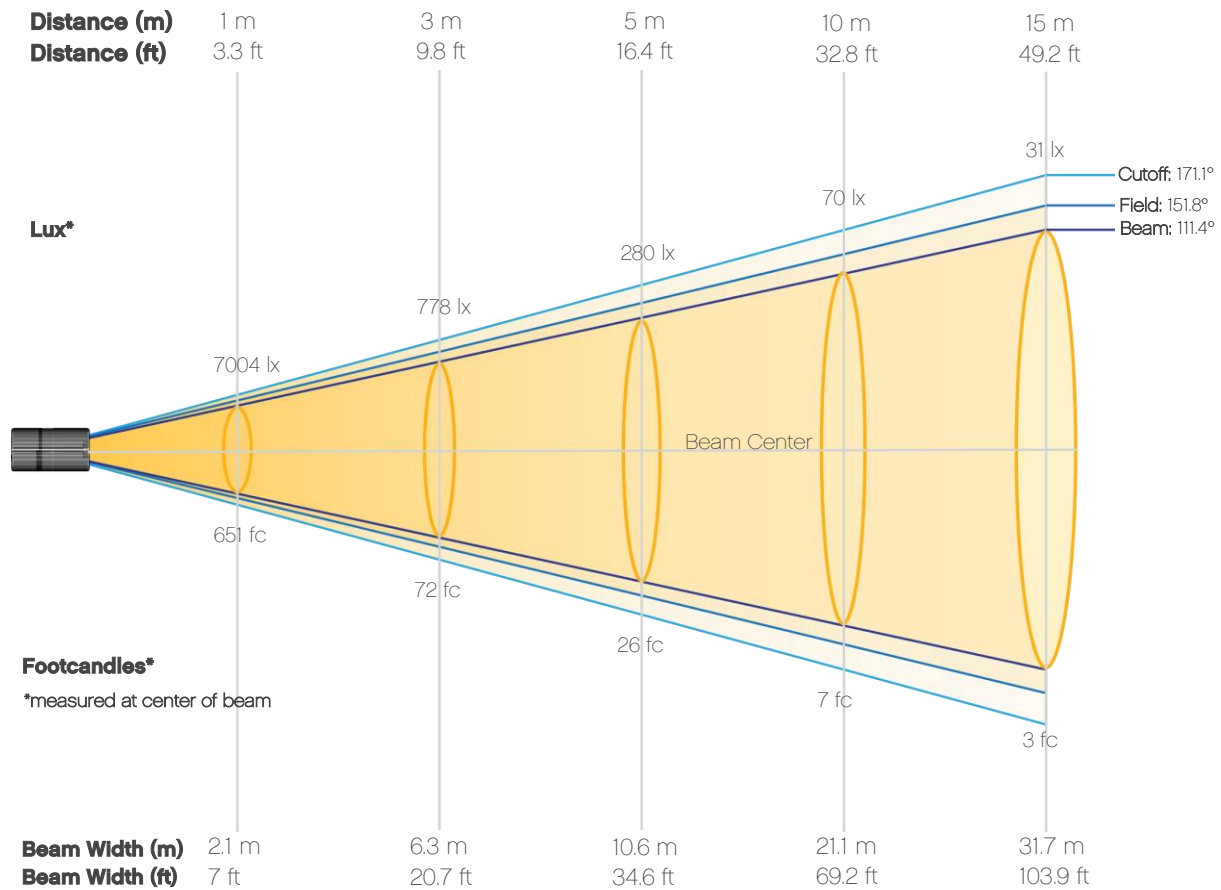
## Overall Measurement



# Photometric Report

Ovation CYC 3-FC: Standard Optics - Full Power

## Beam Details



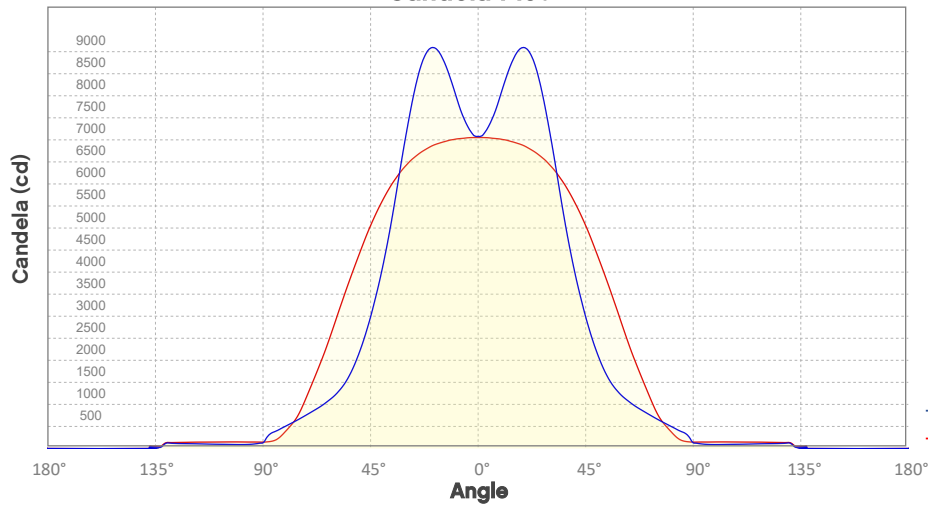
### Beam Illuminances from 1-20m (3.3-65.6ft)

<b>Distance</b>	<b>1m</b>	<b>2m</b>	<b>3m</b>	<b>4m</b>	<b>5m</b>	<b>6m</b>	<b>7m</b>	<b>8m</b>	<b>9m</b>	<b>10m</b>
Lux	7004	1751	778	438	280	195	143	109	86	70
<b>Distance</b>	<b>11m</b>	<b>12m</b>	<b>13m</b>	<b>14m</b>	<b>15m</b>	<b>16m</b>	<b>17m</b>	<b>18m</b>	<b>19m</b>	<b>20m</b>
Lux	58	49	41	36	31	27	24	22	19	18
<b>Distance</b>	<b>3.3ft</b>	<b>6.6ft</b>	<b>9.8ft</b>	<b>13.1ft</b>	<b>16.4ft</b>	<b>19.7ft</b>	<b>23ft</b>	<b>26.2ft</b>	<b>29.5ft</b>	<b>32.8ft</b>
FC	651	163	72	41	26	18	13	10	8	7
<b>Distance</b>	<b>36.1ft</b>	<b>39.4ft</b>	<b>42.7ft</b>	<b>45.9ft</b>	<b>49.2ft</b>	<b>52.5ft</b>	<b>55.8ft</b>	<b>59.1ft</b>	<b>62.3ft</b>	<b>65.6ft</b>
FC	5	5	4	3	3	3	2	2	2	2

# Photometric Report

Ovation CYC 3-FC: Standard Optics - Full Power

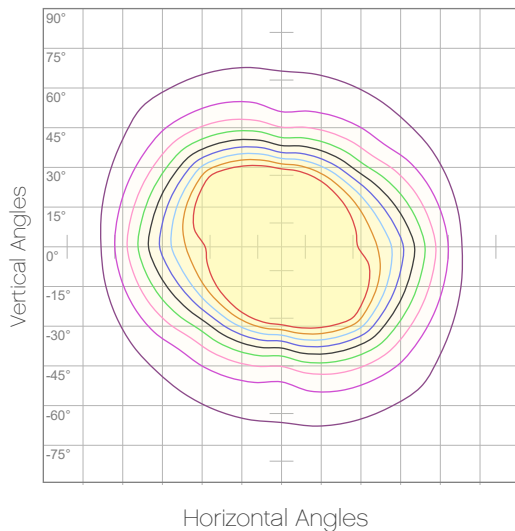
**Candela Plot**



**Beam Angle (50%): 93.1°**  
**Field Angle (10%): 146.4°**  
**Cutoff Angle (3%): 180.4°**

— Vertical Distribution  
 — Horizontal Distribution

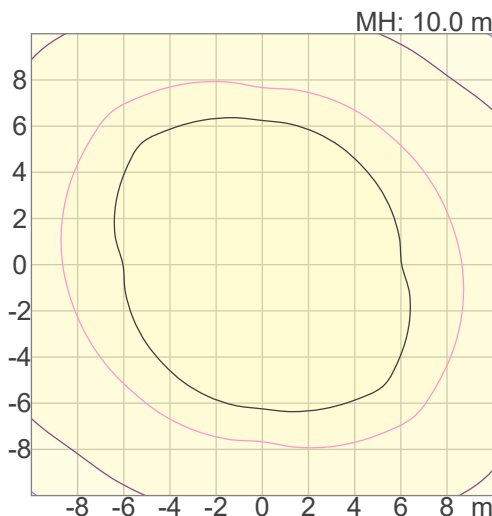
## Polar Diagrams



**iso-candela Diagram**

10%	700 cd
20%	1401 cd
30%	2101 cd
40%	2802 cd
50%	3502 cd
60%	4202 cd
70%	4903 cd
80%	5603 cd
90%	6304 cd

Conditions:  
 Number of c-planes: 8  
 Candela at center: 7004 cd



**iso-illuminance Diagram**

3%	2.10 lx
5%	3.50 lx
10%	7.00 lx
30%	21.0 lx
50%	35.0 lx

Conditions:  
 Number of c-planes: 8  
 Lux at center: 70.0 lx

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

Mounting height: 10 meters / 33 feet

# Photometric & Chromaticity Report

Ovation CYC 3-FC: Standard Optics - 3200K

## Report Summary

### Measurements

Fixture Output: 15671 lm  
Fixture Peak: 7527 cd  
Fixture Efficacy: 60 lm/W  
Intensity @ 5m: 231 lux  
Color Temperature: 3123 K  
CRI: 90.0      CRI R9 Value: 84.8  
CQS: 89.1  
TLCI: 71  
TM-30 Rf: 88.0  
TM-30 Rg: 109.5  
Beam Angle (50%): 93.6°  
Field Angle (10%): 146.5°  
Cutoff Angle (3%): 180.6°

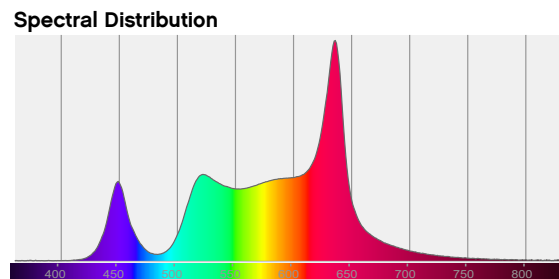
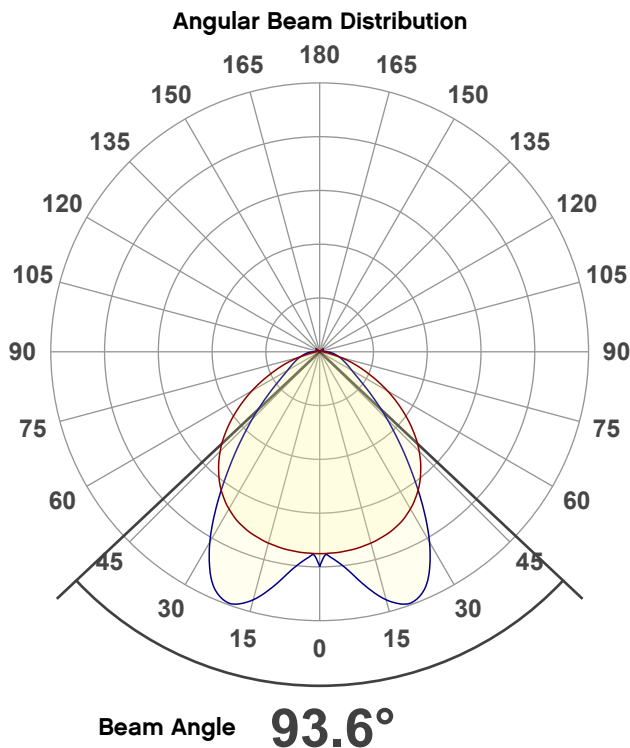


### Conditions

AC Supply: 118 V, 60.1 Hz  
Power: 264.34 W  
Current: 2.25 A  
Power Factor: 0.98

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 7/22/2022 to LM-63-2002 Standards.

## Overall Measurement



**Tested Color** (CIE 1931):

X: 0.429

Y: 0.401



**Light Quality**

CRI: 90.0

**Color Temperature**

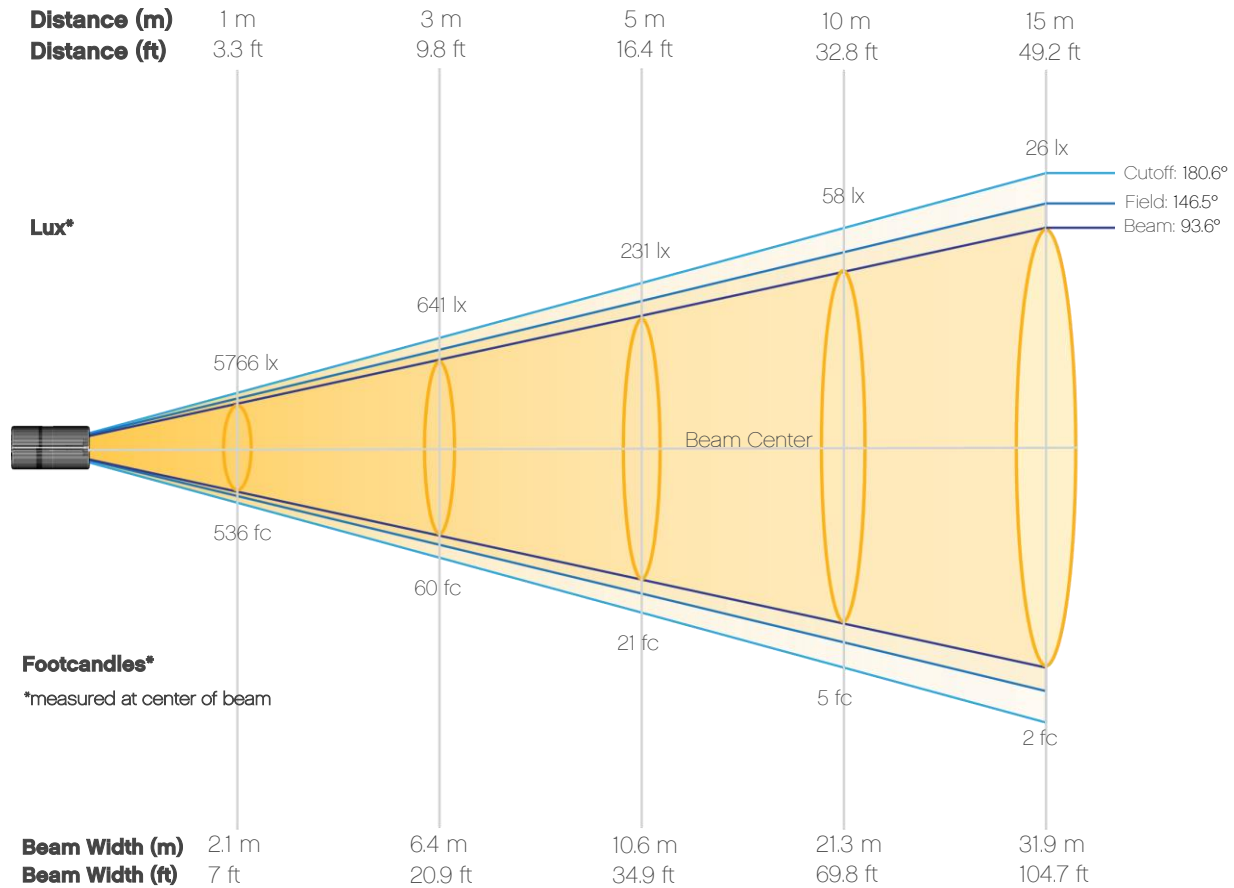
3123 K



# Photometric & Chromaticity Report

Ovation CYC 3-FC: Standard Optics - 3200K

## Beam Details

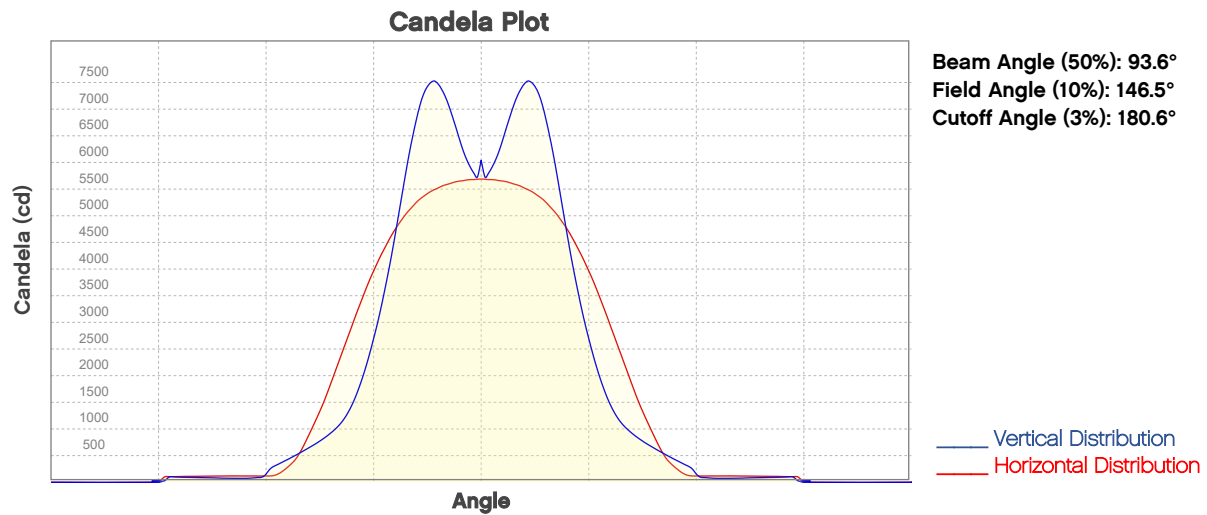


### Beam Intensities from 1-20m (3.3-65.6ft)

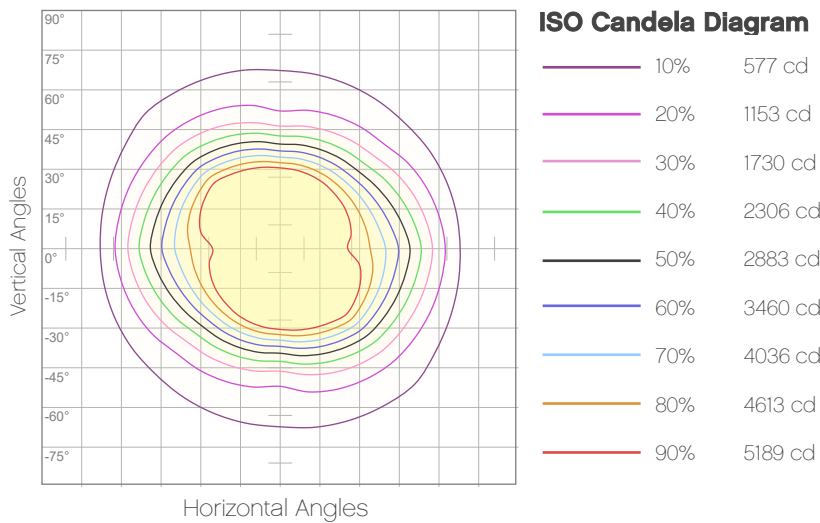
<b>Distance</b>	<b>1m</b>	<b>2m</b>	<b>3m</b>	<b>4m</b>	<b>5m</b>	<b>6m</b>	<b>7m</b>	<b>8m</b>	<b>9m</b>	<b>10m</b>
Lux	5766	1442	641	360	231	160	118	90	71	58
<b>Distance</b>	<b>11m</b>	<b>12m</b>	<b>13m</b>	<b>14m</b>	<b>15m</b>	<b>16m</b>	<b>17m</b>	<b>18m</b>	<b>19m</b>	<b>20m</b>
Lux	48	40	34	29	26	23	20	18	16	14
<b>Distance</b>	<b>3.3ft</b>	<b>6.6ft</b>	<b>9.8ft</b>	<b>13.1ft</b>	<b>16.4ft</b>	<b>19.7ft</b>	<b>23ft</b>	<b>26.2ft</b>	<b>29.5ft</b>	<b>32.8ft</b>
FC	536	134	60	33	21	15	11	8	7	5
<b>Distance</b>	<b>36.1ft</b>	<b>39.4ft</b>	<b>42.7ft</b>	<b>45.9ft</b>	<b>49.2ft</b>	<b>52.5ft</b>	<b>55.8ft</b>	<b>59.1ft</b>	<b>62.3ft</b>	<b>65.6ft</b>
FC	4	4	3	3	2	2	2	2	1	1

# Photometric & Chromaticity Report

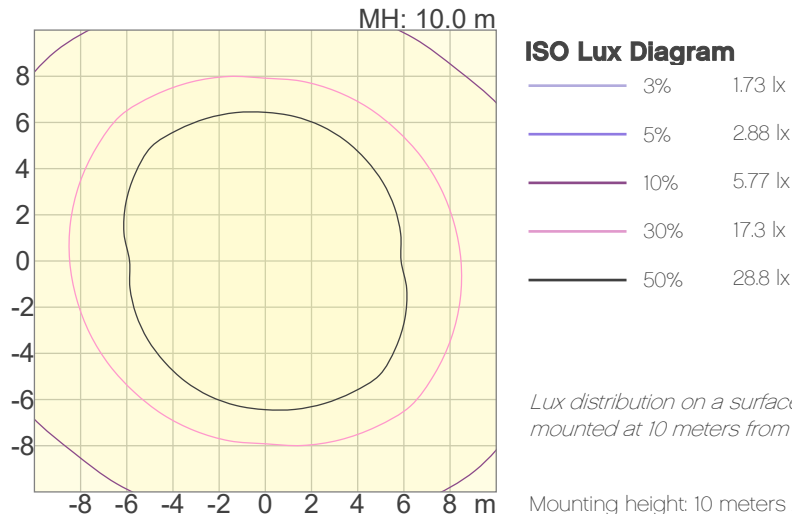
Ovation CYC 3-FC: Standard Optics - 3200K



## ISO Diagrams



Conditions:  
 Number of c-planes: 8  
 Candela at center: 5766 cd



Conditions:  
 Number of c-planes: 8  
 Candela at center: 57.7 lx

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

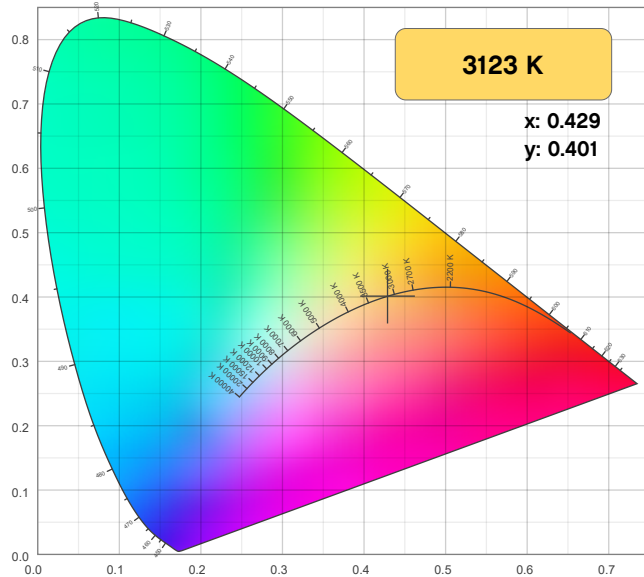
Mounting height: 10 meters / 33 feet

# Photometric & Chromaticity Report

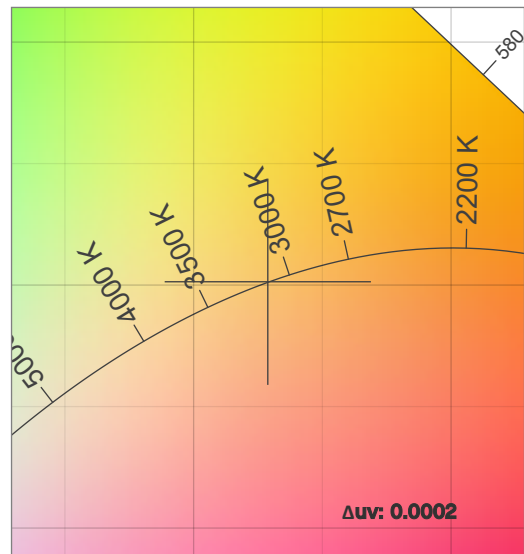
Ovation CYC 3-FC: Standard Optics - 3200K

## Chromaticity

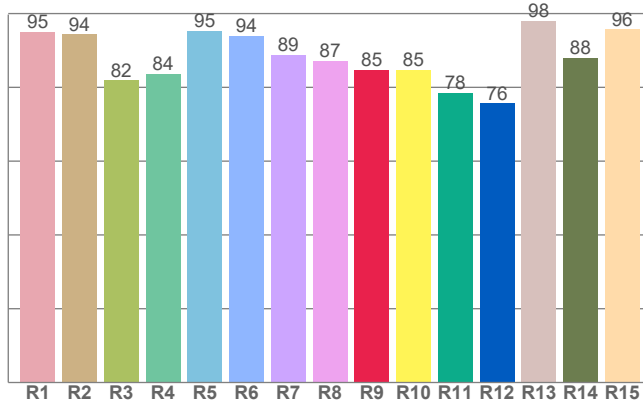
CIE 1931



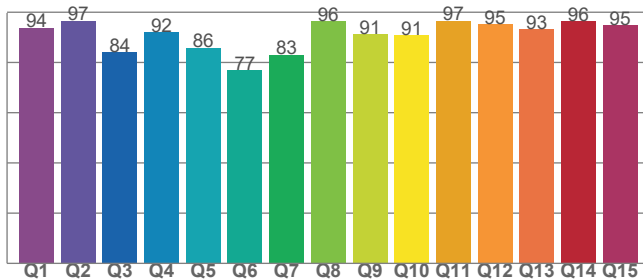
CIE 1931 - Zoom



CRI: 90.0 (R1-R8)



CQS: 89.1



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3123 K	0.429	0.401

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
$\Delta uv$	y	u
0.0002	0.401	0.246

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
90.0	84.8	89.1

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
71	88.0	109.5

# Photometric & Chromaticity Report

Ovation CYC 3-FC: Standard Optics - 3200K

## TM-30 Details

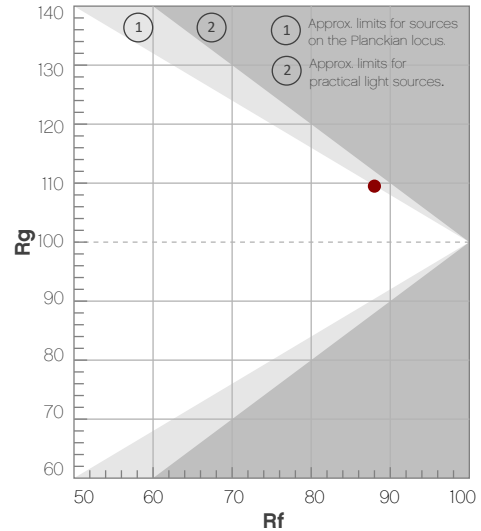
**Rf 88.0**

Fidelity Index  
(R<sub>g</sub>)

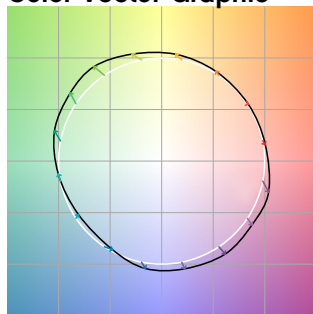
**Rg 109.5**

Gammut Index  
(R<sub>g</sub>)

		Graphic shifts (%)		
Hue Bin	R <sub>f</sub>	Chroma	Hue	
1	91	2%	-4%	
2	94	0%	-1%	
3	90	2%	5%	
4	87	4%	7%	
5	86	7%	8%	
6	80	13%	4%	
7	82	10%	-6%	
8	83	8%	-8%	
9	90	1%	-7%	
10	91	-4%	-2%	
11	86	-2%	8%	
12	88	5%	5%	
13	90	7%	1%	
14	89	9%	1%	
15	87	7%	-3%	
16	86	8%	-9%	



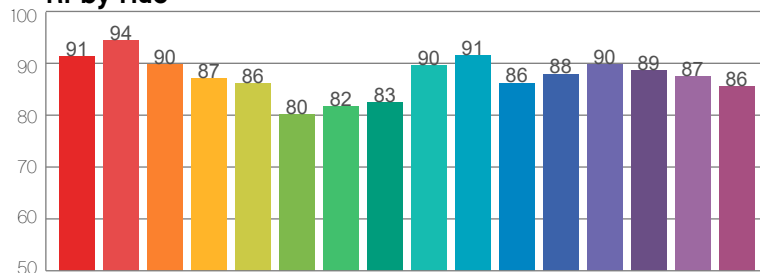
Color Vector Graphic



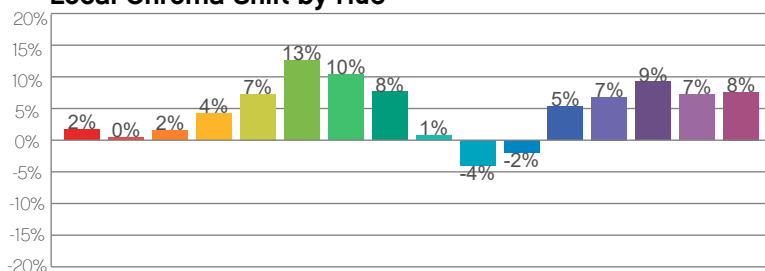
Color Distortion Graphic



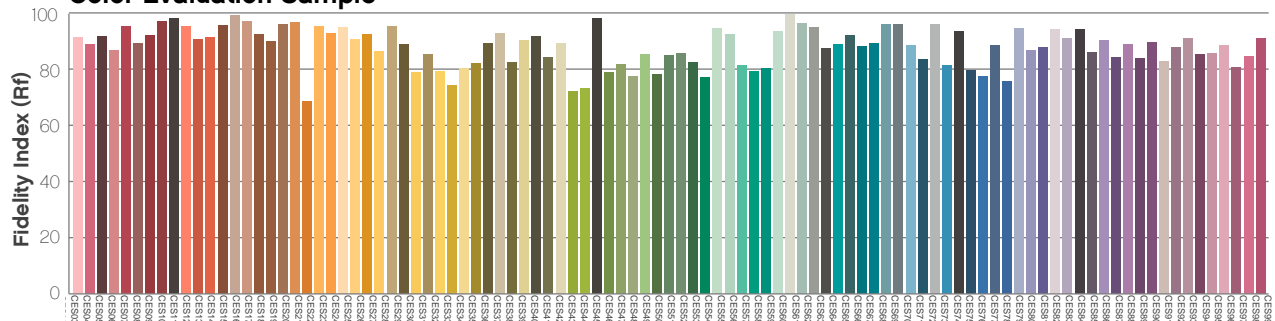
R<sub>f</sub> by Hue



Local Chroma Shift by Hue



Color Evaluation Sample



# Photometric & Chromaticity Report

Ovation CYC 3-FC: Standard Optics - 5600K

## Report Summary

### Measurements

Fixture Output: 11872 lm  
Fixture Peak: 5697 cd  
Fixture Efficacy: 47 lm/W  
Intensity @ 5m: 168 lux  
Color Temperature: 6185 K  
CRI: 89.2      CRI R9 Value: 93.2  
CQS: 90.7  
TLCI: 81  
TM-30 Rf: 87.5  
TM-30 Rg: 107.0  
Beam Angle (50%): 93.9°  
Field Angle (10%): 147.5°  
Cutoff Angle (3%): 181.1°

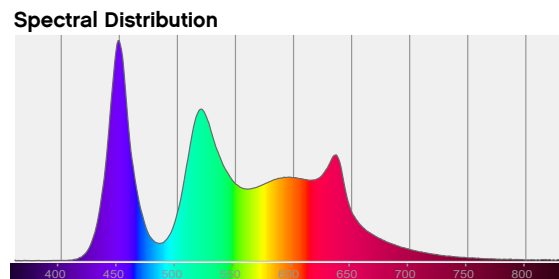
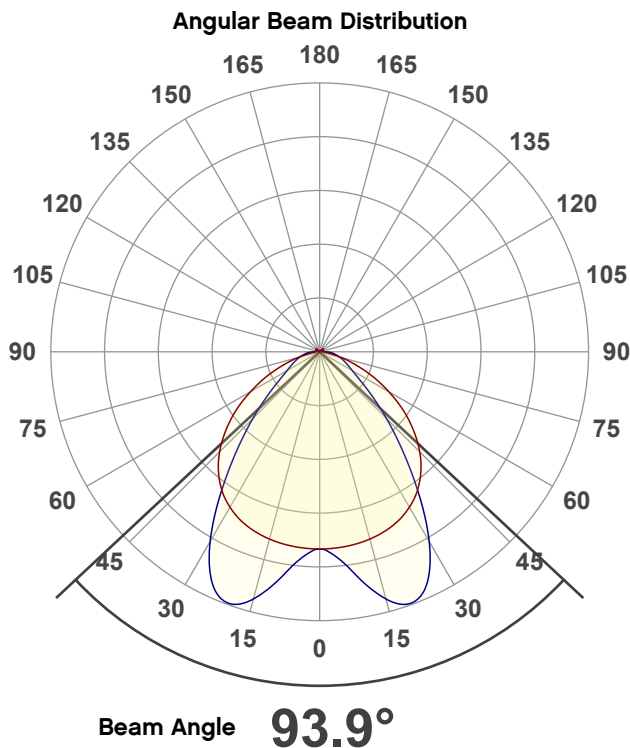


### Conditions

AC Supply: 116 V, 60 Hz  
Power: 254.77 W  
Current: 2.19 A  
Power Factor: 0.98

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 7/22/2022 to LM-63-2002 Standards.

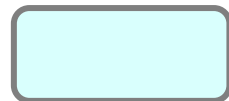
## Overall Measurement



**Tested Color** (CIE 1931):

X: 0.318

Y: 0.335



**Light Quality**

CRI: 89.2

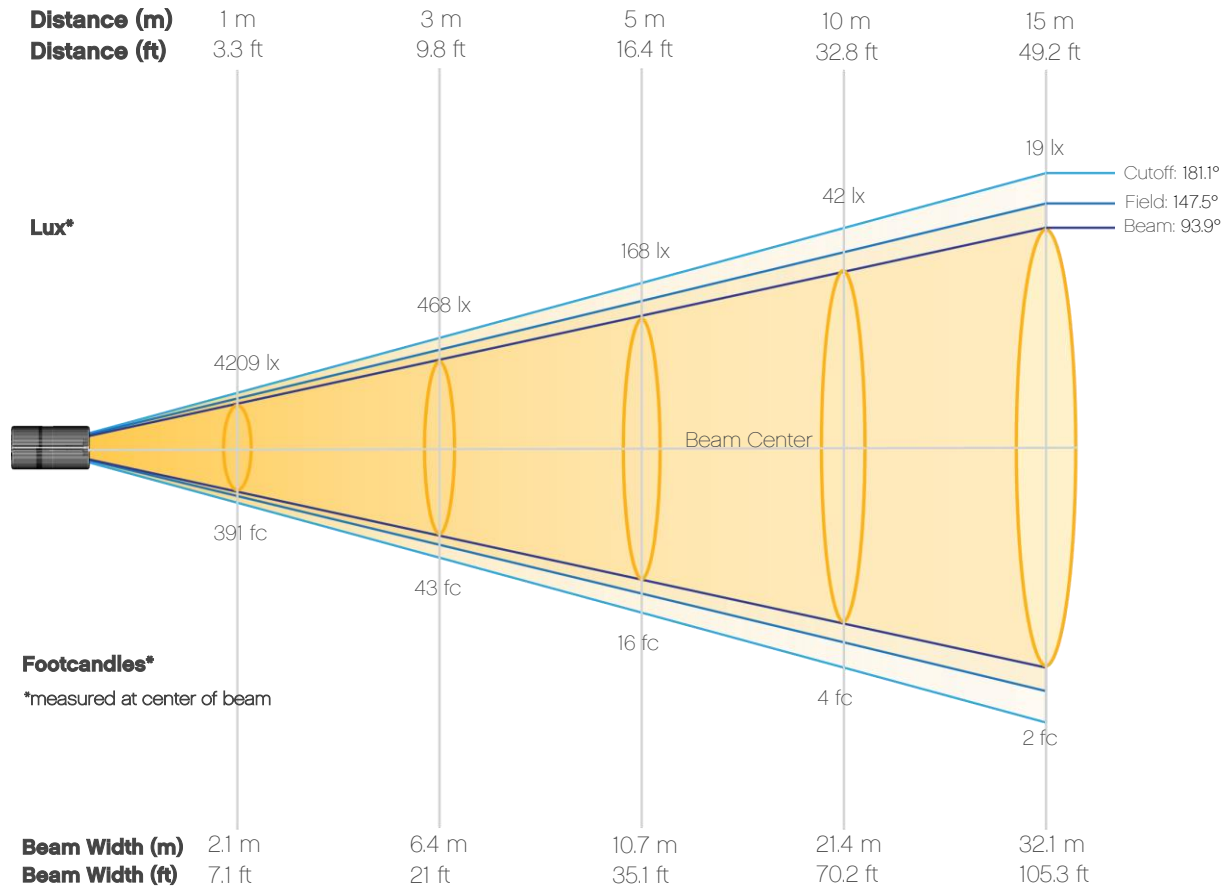
**Color Temperature**

6185 K

# Photometric & Chromaticity Report

Ovation CYC 3-FC: Standard Optics - 5600K

## Beam Details

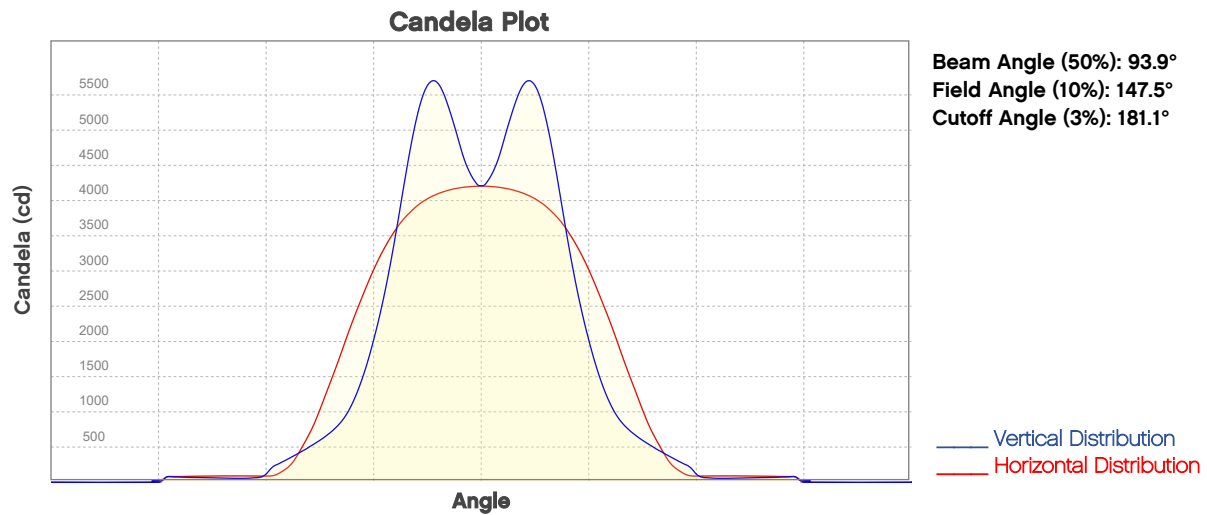


### Beam Intensities from 1-20m (3.3-65.6ft)

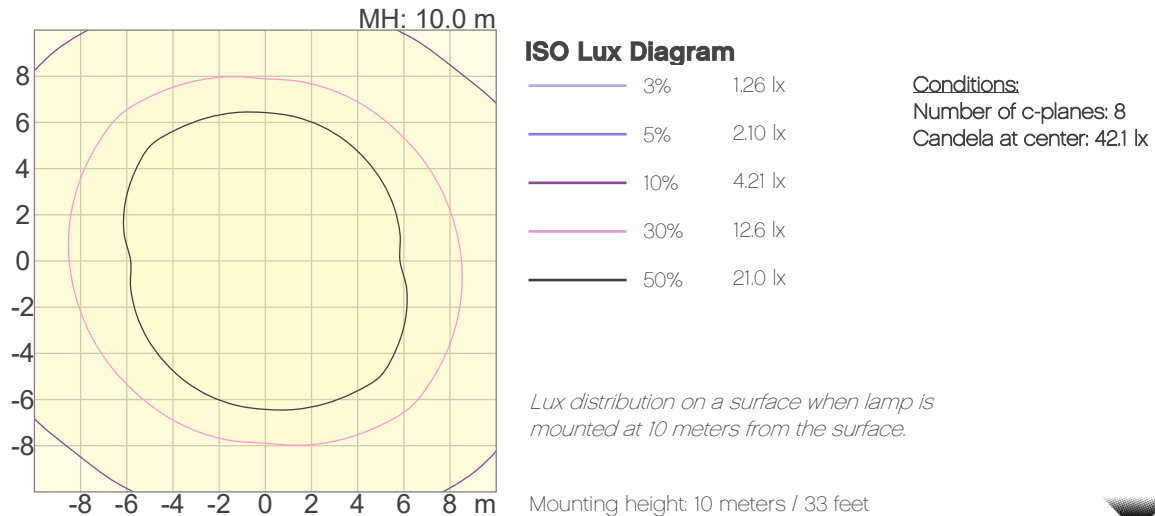
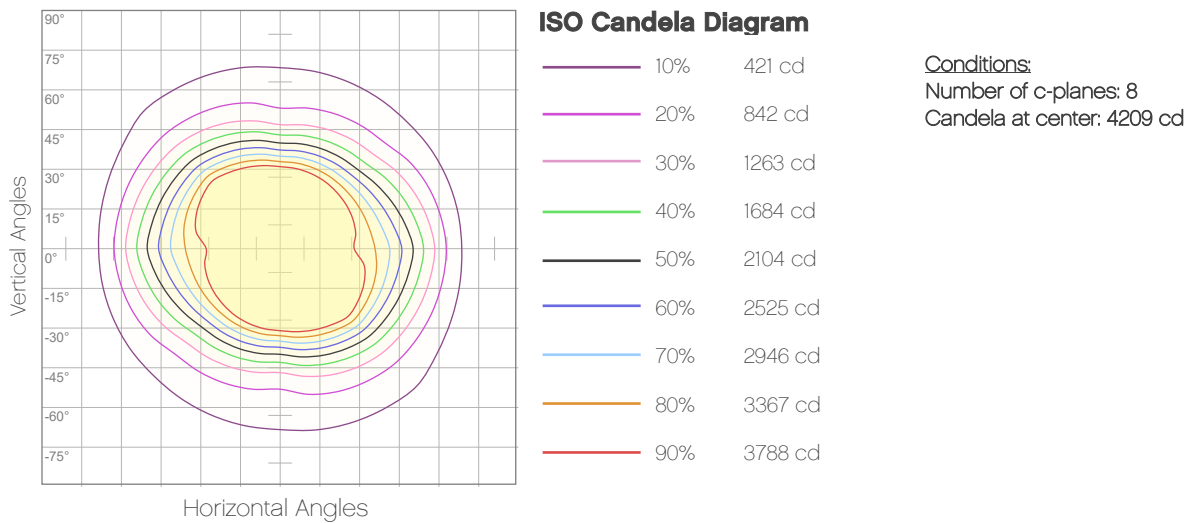
<b>Distance</b>	<b>1m</b>	<b>2m</b>	<b>3m</b>	<b>4m</b>	<b>5m</b>	<b>6m</b>	<b>7m</b>	<b>8m</b>	<b>9m</b>	<b>10m</b>
Lux	4209	1052	468	263	168	117	86	66	52	42
<b>Distance</b>	<b>11m</b>	<b>12m</b>	<b>13m</b>	<b>14m</b>	<b>15m</b>	<b>16m</b>	<b>17m</b>	<b>18m</b>	<b>19m</b>	<b>20m</b>
Lux	35	29	25	21	19	16	15	13	12	11
<b>Distance</b>	<b>3.3ft</b>	<b>6.6ft</b>	<b>9.8ft</b>	<b>13.1ft</b>	<b>16.4ft</b>	<b>19.7ft</b>	<b>23ft</b>	<b>26.2ft</b>	<b>29.5ft</b>	<b>32.8ft</b>
FC	391	98	43	24	16	11	8	6	5	4
<b>Distance</b>	<b>36.1ft</b>	<b>39.4ft</b>	<b>42.7ft</b>	<b>45.9ft</b>	<b>49.2ft</b>	<b>52.5ft</b>	<b>55.8ft</b>	<b>59.1ft</b>	<b>62.3ft</b>	<b>65.6ft</b>
FC	3	3	2	2	2	2	1	1	1	1

# Photometric & Chromaticity Report

Ovation CYC 3-FC: Standard Optics - 5600K



## ISO Diagrams



Chauvet Professional – [www.chauvetprofessional.com](http://www.chauvetprofessional.com)

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All product specifications, measurements and dimensions are subject to change without notice

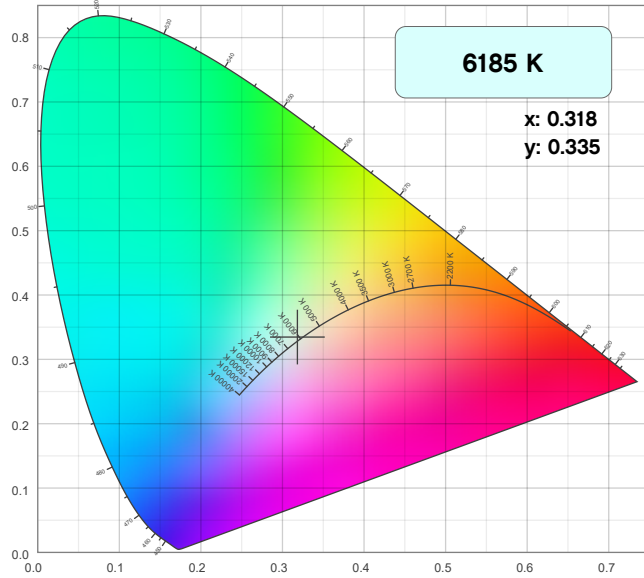


# Photometric & Chromaticity Report

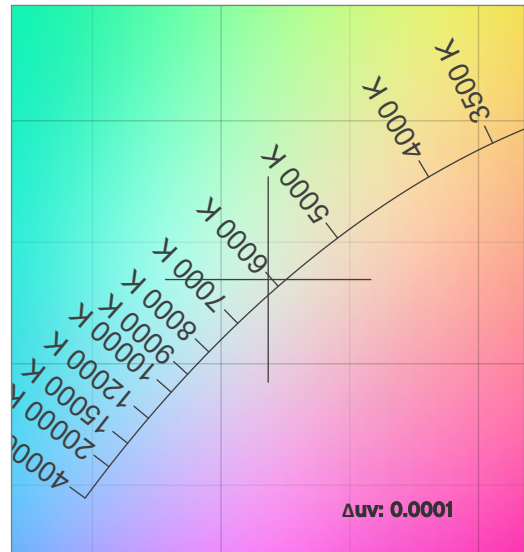
Ovation CYC 3-FC: Standard Optics - 5600K

## Chromaticity

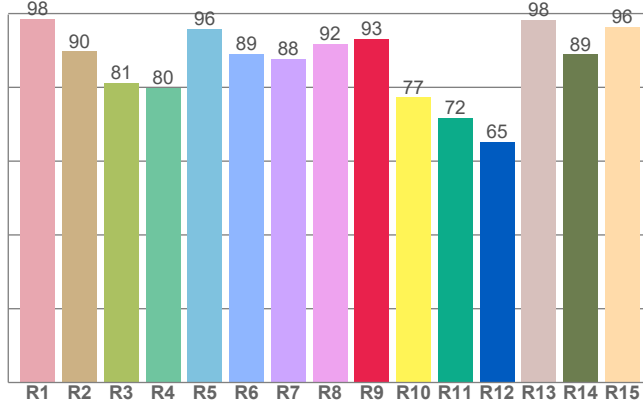
CIE 1931



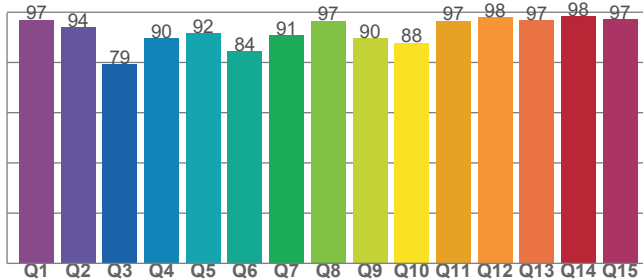
CIE 1931 - Zoom



CRI: 89.2 (R1-R8)



CQS: 90.7



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
6185 K	0.318	0.335

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0001	0.335	0.200

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
89.2	93.2	90.7

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
81	87.5	107.0



# Photometric & Chromaticity Report

Ovation CYC 3-FC: Standard Optics - 5600K

## TM-30 Details

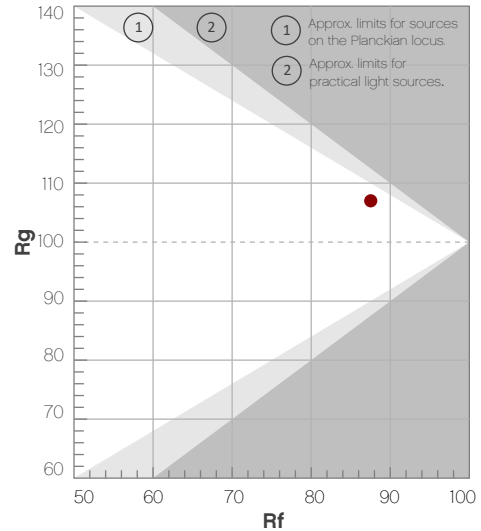
**Rf 87.5**

Fidelity Index  
(R<sub>f</sub>)

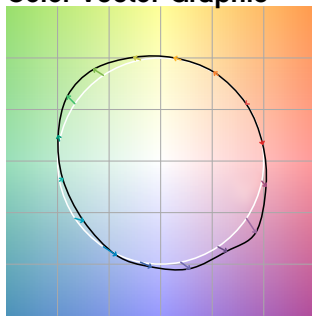
**Rg 107.0**

Gammut Index  
(R<sub>g</sub>)

		Graphic shifts (%)	
Hue Bin	R <sub>f</sub>	Chroma	Hue
1	93	0%	-3%
2	96	0%	0%
3	91	0%	5%
4	89	1%	7%
5	86	4%	6%
6	85	10%	5%
7	84	10%	-2%
8	91	2%	-5%
9	92	-3%	-2%
10	86	-6%	7%
11	77	0%	15%
12	84	2%	11%
13	88	8%	7%
14	84	8%	4%
15	83	15%	-6%
16	90	5%	-4%



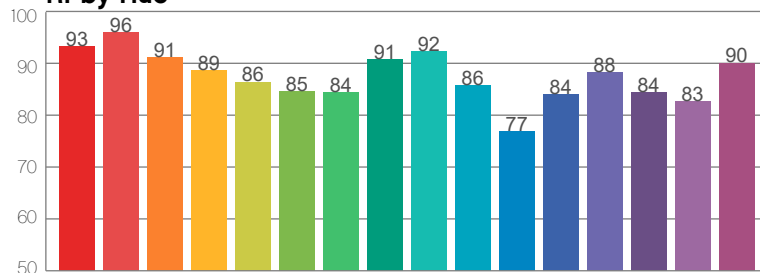
Color Vector Graphic



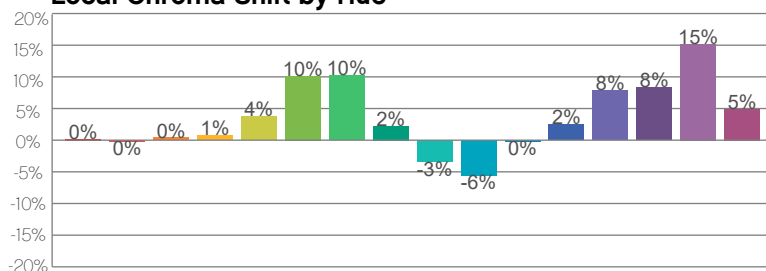
Color Distortion Graphic



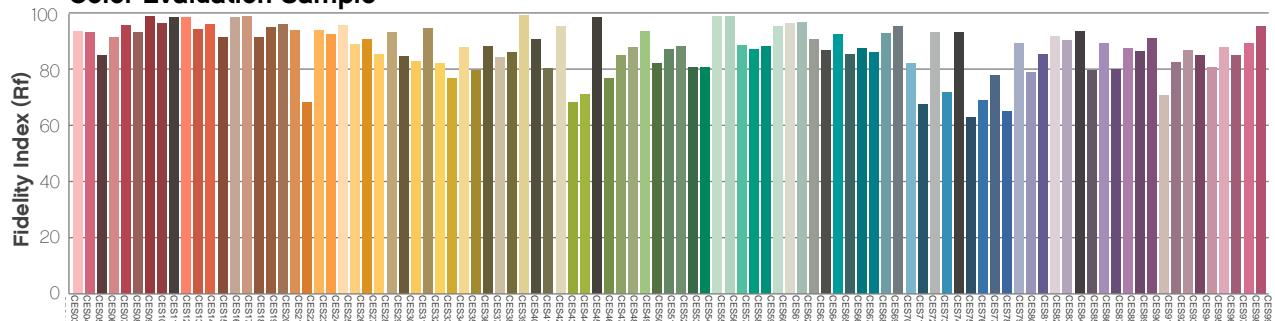
R<sub>f</sub> by Hue



Local Chroma Shift by Hue



Color Evaluation Sample



## Contact Us

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