

# OVATION

## E-4 WW IP

PHOTOMETRICS REPORT



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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

E-4 WW IP

# Photometrics & Chromaticity Reports

# Photometric & Chromaticity Report

Ovation E-4WW IP: 5° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 13989 lm  
Fixture Peak: 1138810 cd  
Fixture Efficacy: 32 lm/W  
Intensity @ 5m: 45552 lux  
Color Temperature: 3156 K  
CRI: 97.3      CRI R9 Value: 84.4  
CQS: 94.8  
TLCI: 97  
TM-30 Rf: 93.3  
TM-30 Rg: 99.0  
Beam Angle (50%): 6.9°  
Field Angle (10%): 9.3°  
Cutoff Angle (3%): 10.2°

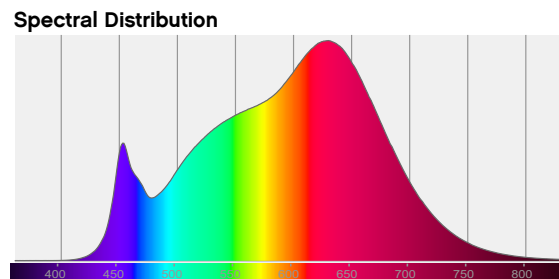
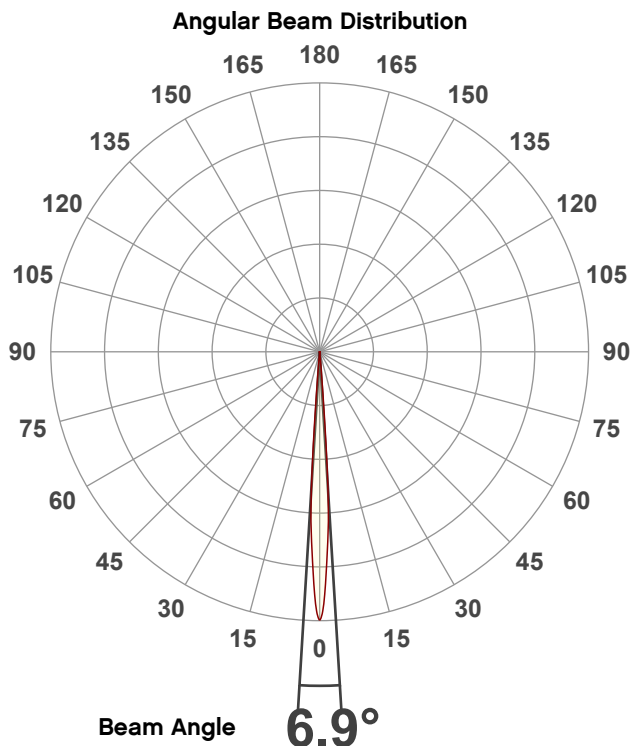


### Conditions

AC Supply: 115 V, 60 Hz  
Power: 436.19 W  
Current: 3.78 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 6/1/2023 to LM-63-2002 Standards.

## Overall Measurement



Tested Color (CIE 1931):

X: 0.428

Y: 0.403



Light Quality

CRI: 97.3

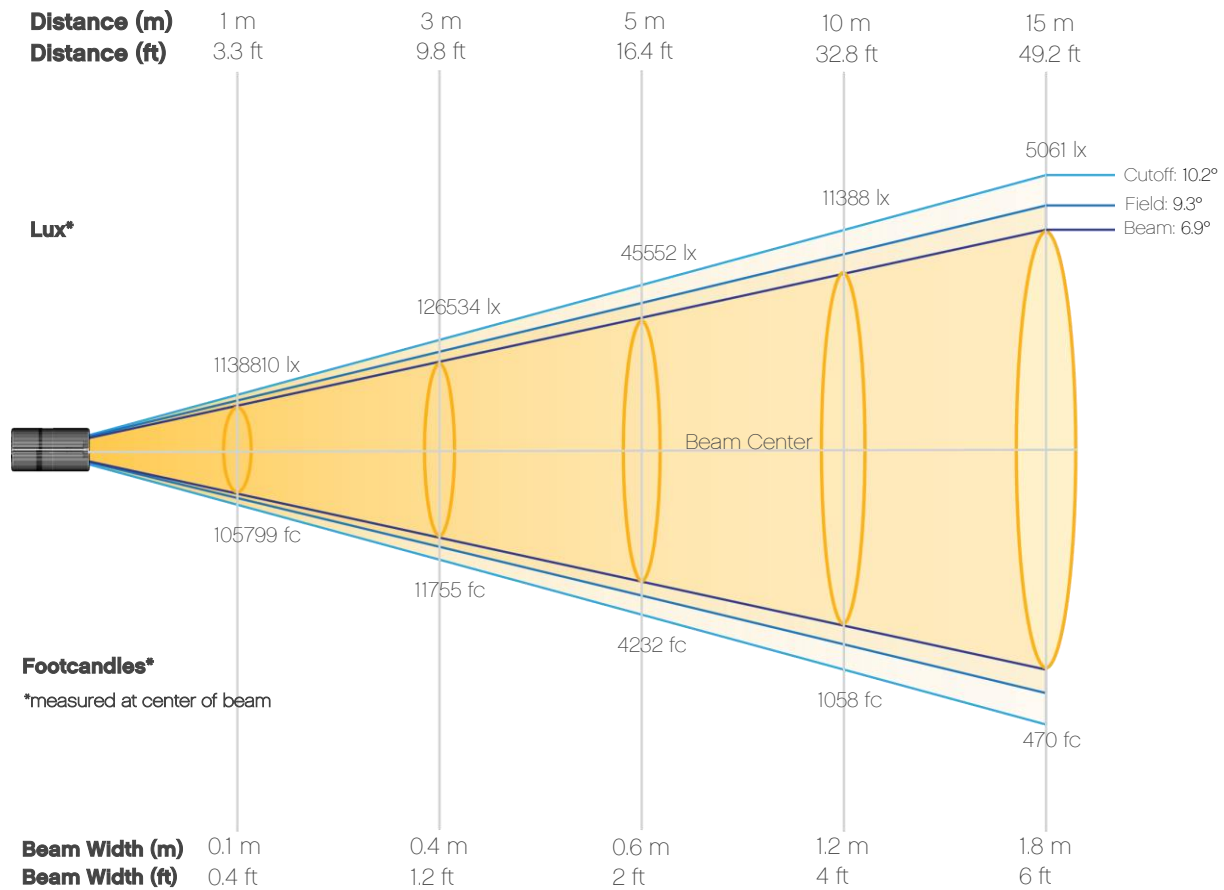
Color Temperature

3156 K

# Photometric & Chromaticity Report

Ovation E-4WW IP: 5° Lens - Full Power

## Beam Details

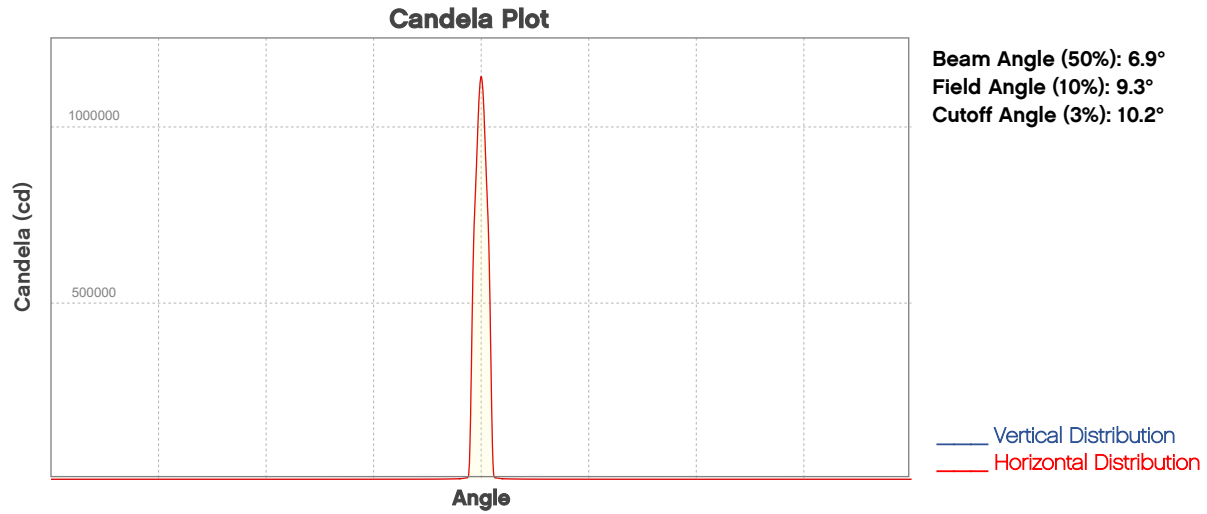


### Beam Intensities from 1-20m (3.3-65.6ft)

<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	1138810	284702	126534	71176	45552	31634	23241	17794	14059	11388
<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	9412	7908	6739	5810	5061	4448	3941	3515	3155	2847
<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	105799	26450	11755	6612	4232	2939	2159	1653	1306	1058
<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	874	735	626	540	470	413	366	327	293	264

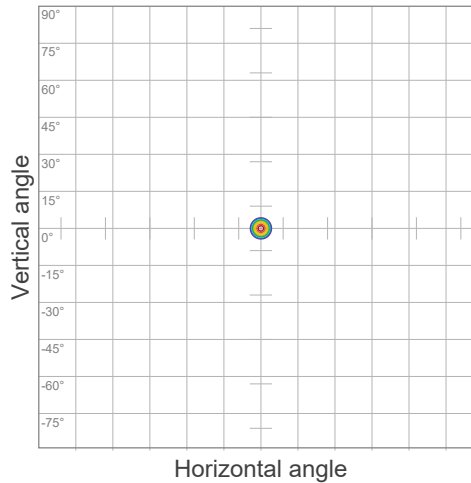
# Photometric & Chromaticity Report

Ovation E-4WW IP: 5° Lens - Full Power



## ISO Diagrams

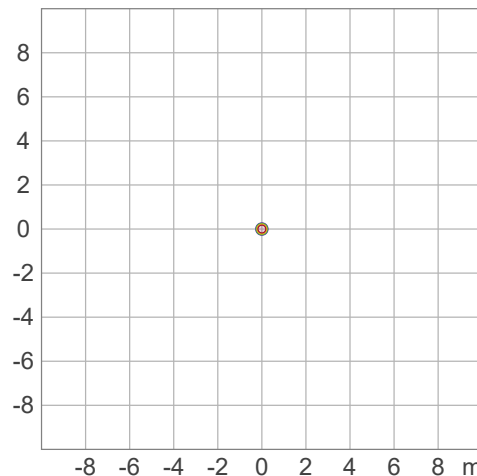
### ISO Candela Diagram



90 %	1024929.0 cd
80 %	911047.7 cd
70 %	797166.8 cd
60 %	683285.8 cd
50 %	569404.8 cd
40 %	455523.8 cd
30 %	341642.9 cd
20 %	227761.9 cd
10 %	113881.0 cd

Peak intensity: 113881.0 cd  
 Number of c-planes: 2

### ISO Lux Diagram



50.0 %	63267.2 lx
30.0 %	37960.3 lx
10.0 %	12653.4 lx
5.0 %	6326.7 lx
3.0 %	3796.0 lx

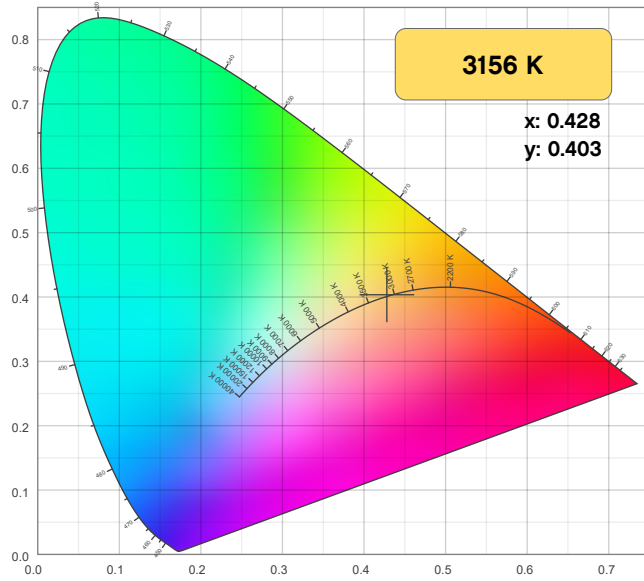
Peak illuminance: 126534.4 lx  
 Mounting height: 3.0 m  
 Number of c-planes: 2

# Photometric & Chromaticity Report

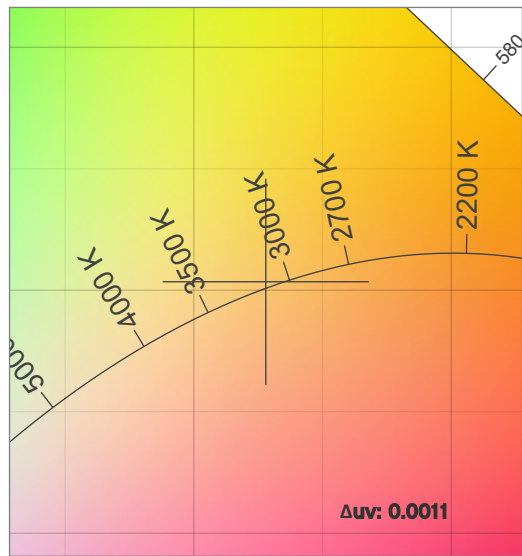
Ovation E-4WW IP: 5° Lens - Full Power

## Chromaticity

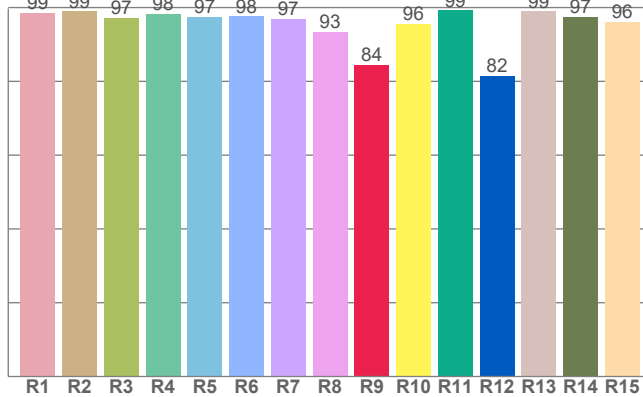
CIE 1931



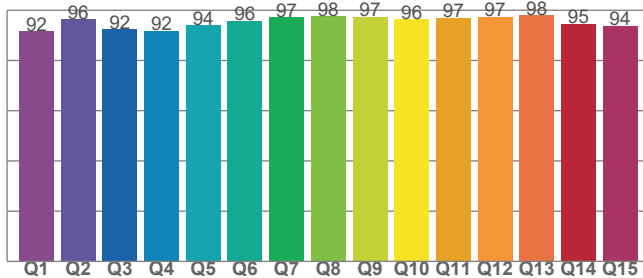
CIE 1931 - Zoom



CRI: 97.3 (R1-R8)



CQS: 94.8



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3156 K	0.428	0.403

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
$\Delta uv$	y	u
0.0011	0.403	0.245

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.3	84.4	94.8

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
97	93.3	99.0

# Photometric & Chromaticity Report

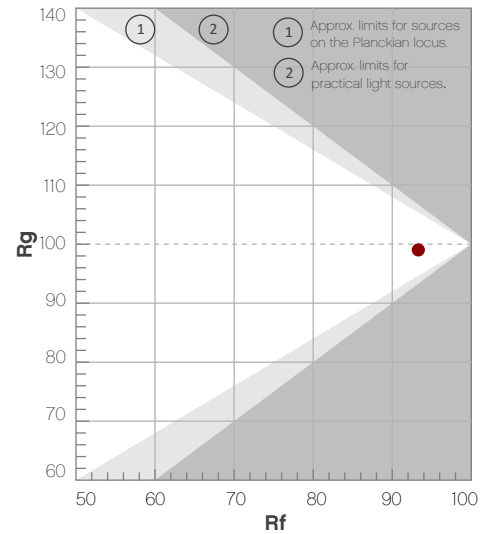
Ovation E-4WW IP: 5° Lens - Full Power

## TM-30 Details

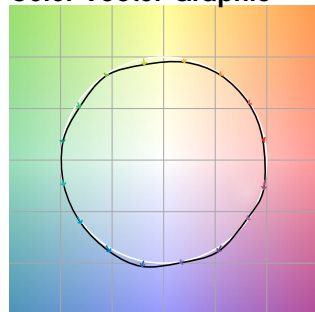
**Rf 93.3**  
Fidelity Index  
(Rg)

**Rg 99.0**  
Gammut Index  
(Rg)

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-2%	1%
2	97	-1%	0%
3	97	-1%	0%
4	94	-3%	-1%
5	93	-6%	0%
6	97	-1%	1%
7	92	-4%	3%
8	96	-1%	2%
9	92	0%	5%
10	89	1%	7%
11	90	3%	6%
12	92	5%	-1%
13	94	1%	-4%
14	92	3%	-5%
15	91	-1%	-3%
16	89	1%	-9%



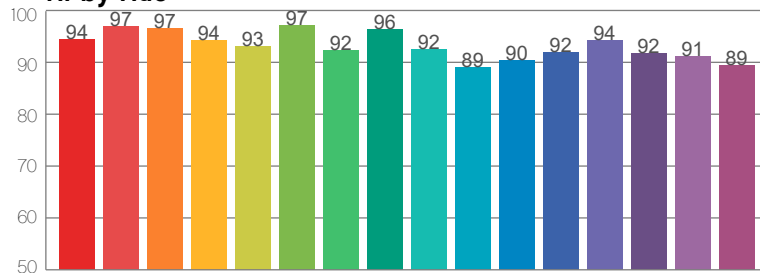
Color Vector Graphic



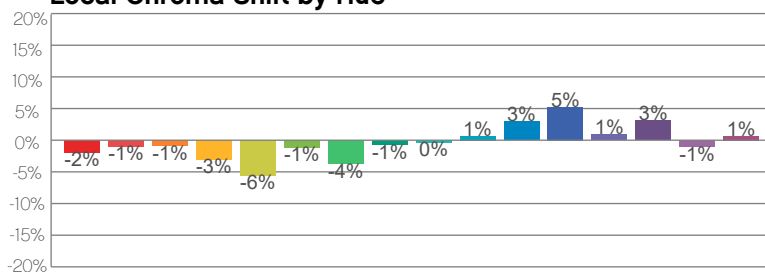
Color Distortion Graphic



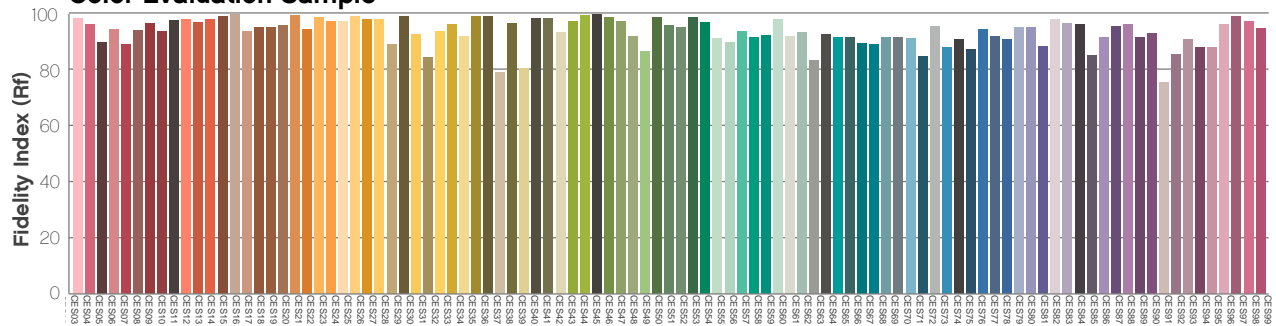
R<sub>f</sub> by Hue



Local Chroma Shift by Hue



Color Evaluation Sample



# Photometric & Chromaticity Report

Ovation E-4WW IP: 10° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 16250 lm  
Fixture Peak: 643730 cd  
Fixture Efficacy: 37 lm/W  
Intensity @ 5m: 25749 lux  
Color Temperature: 3189 K  
CRI: 97.4      CRI R9 Value: 85.3  
CQS: 94.9  
TLCI: 98  
TM-30 Rf: 93.5  
TM-30 Rg: 99.2  
Beam Angle (50%): 9.9°  
Field Angle (10%): 12.5°  
Cutoff Angle (3%): 14.1°

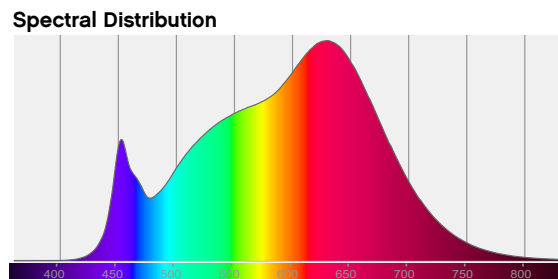
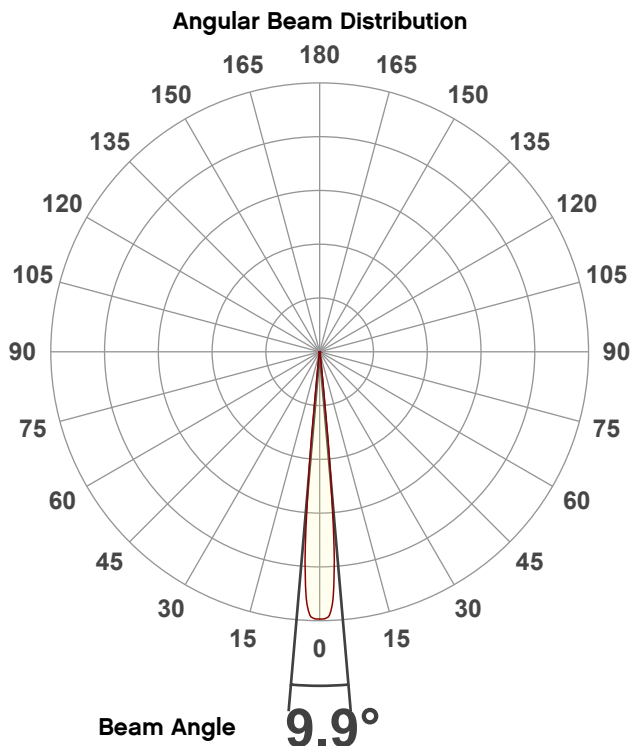


### Conditions

AC Supply: 115 V, 60 Hz  
Power: 441.6 W  
Current: 3.82 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 6/1/2023 to LM-63-2002 Standards.

## Overall Measurement



Tested Color (CIE 1931):

X: 0.426

Y: 0.403



Light Quality

CRI: 97.4

Color Temperature

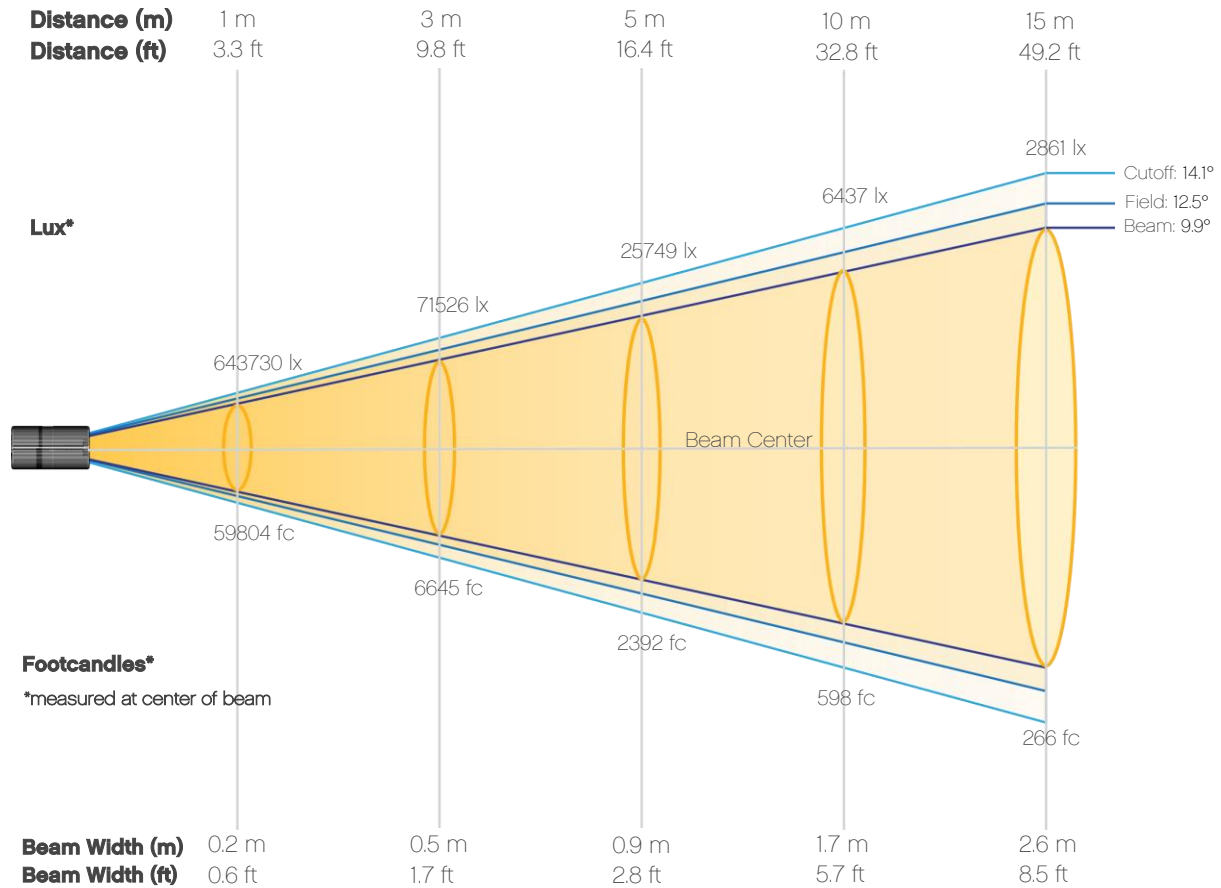
3189 K



# Photometric & Chromaticity Report

Ovation E-4WW IP: 10° Lens - Full Power

## Beam Details

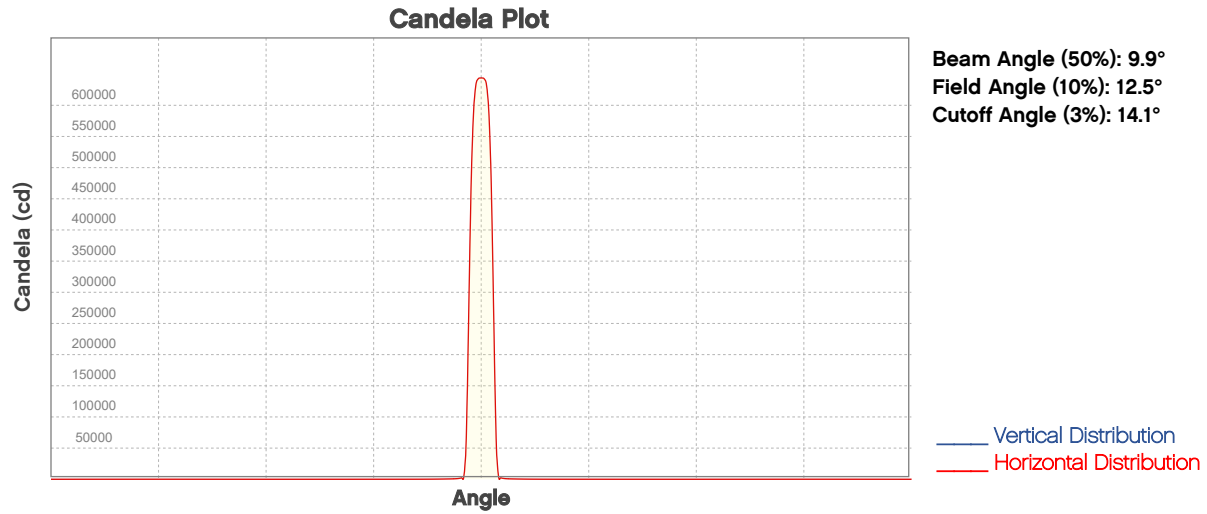


### Beam Intensities from 1-20m (3.3-65.6ft)

<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	643730	160932	71526	40233	25749	17881	13137	10058	7947	6437
<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	5320	4470	3809	3284	2861	2515	2227	1987	1783	1609
<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	59804	14951	6645	3738	2392	1661	1220	934	738	598
<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	494	415	354	305	266	234	207	185	166	150

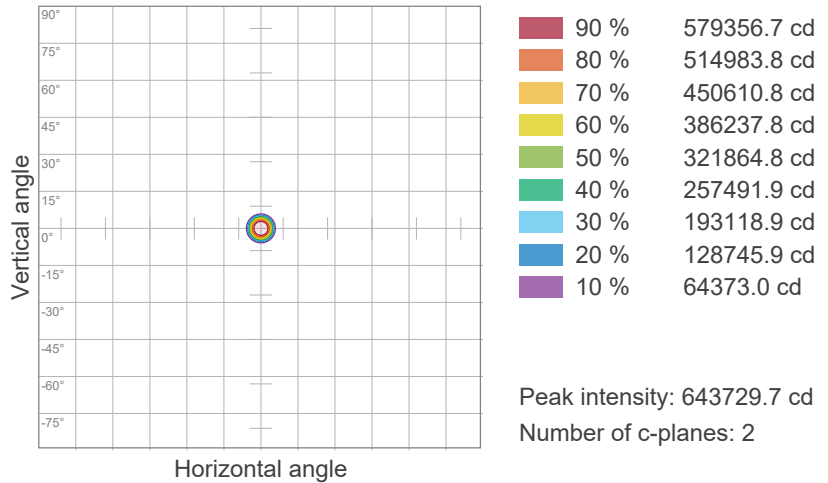
# Photometric & Chromaticity Report

Ovation E-4WW IP: 10° Lens - Full Power

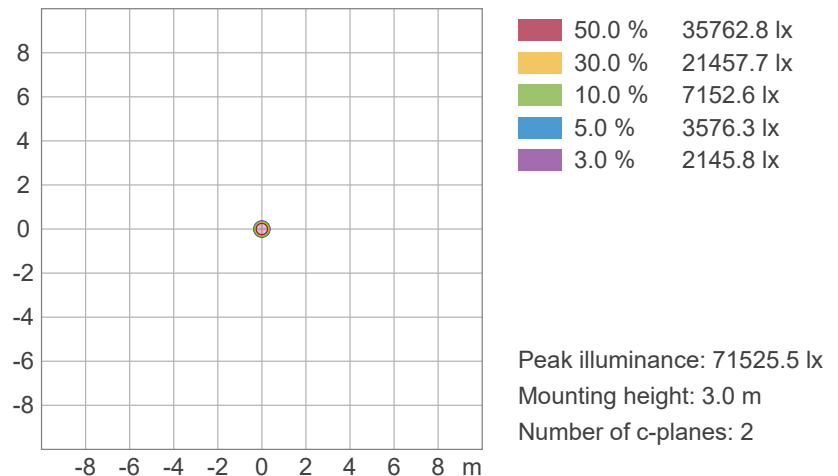


## ISO Diagrams

### ISO Candela Diagram



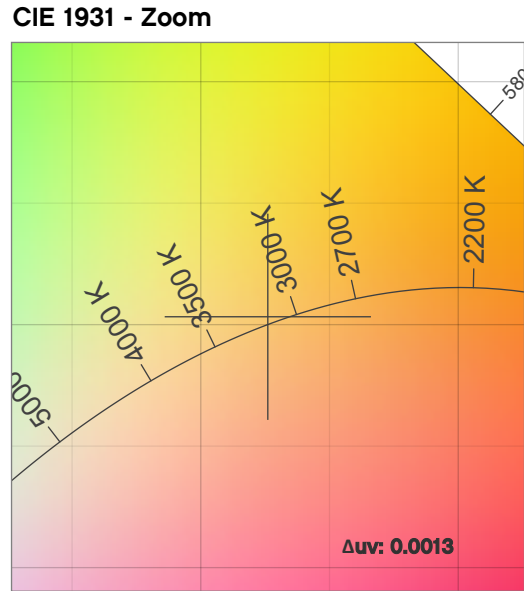
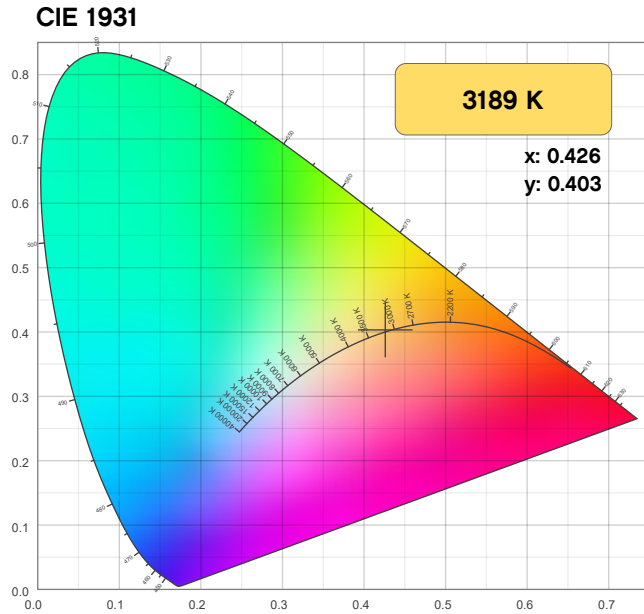
### ISO Lux Diagram



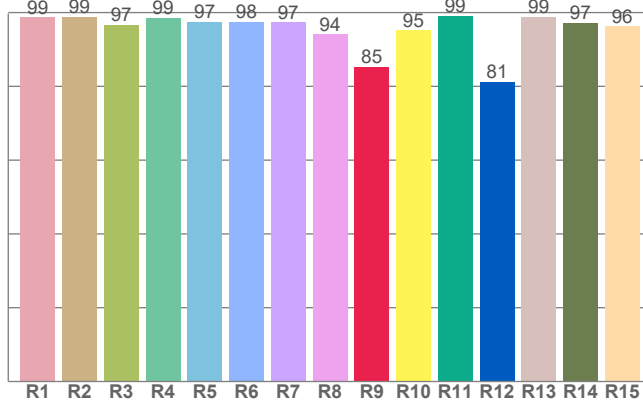
# Photometric & Chromaticity Report

Ovation E-4WW IP: 10° Lens - Full Power

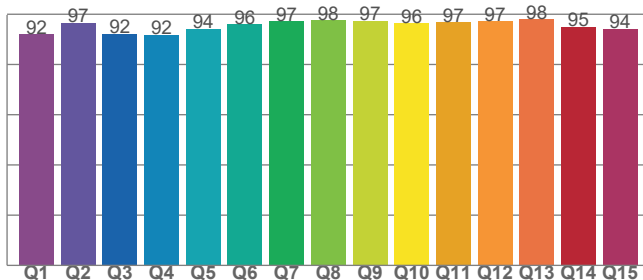
## Chromaticity



**CRI: 97.4 (R1-R8)**



**CQS: 94.9**



**Color Parameters**

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3189 K	0.426	0.403

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0013	0.403	0.244

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.4	85.3	94.9

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
98	93.5	99.2

# Photometric & Chromaticity Report

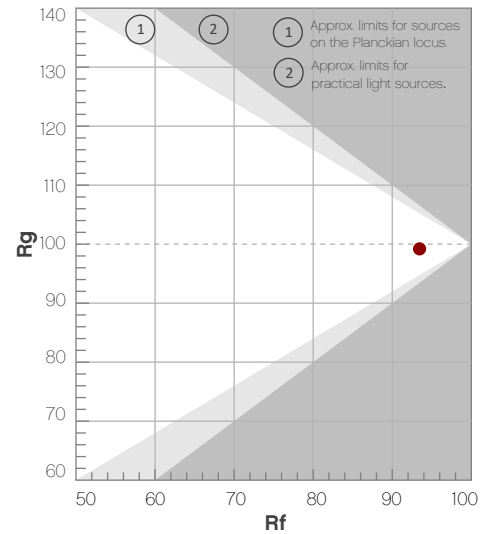
Ovation E-4WW IP: 10° Lens - Full Power

## TM-30 Details

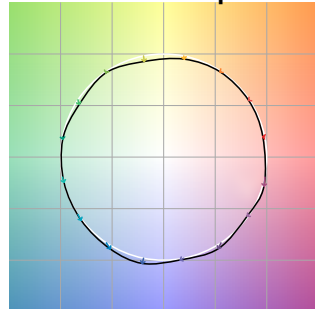
**Rf 93.5**  
Fidelity Index  
(Rg)

**Rg 99.2**  
Gammut Index  
(Rg)

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	1%
2	97	-1%	0%
3	97	-1%	0%
4	94	-3%	-1%
5	93	-5%	0%
6	97	-1%	1%
7	93	-4%	3%
8	97	-1%	2%
9	93	0%	5%
10	89	1%	6%
11	90	3%	6%
12	92	5%	0%
13	94	1%	-4%
14	92	3%	-5%
15	91	-1%	-3%
16	89	1%	-9%



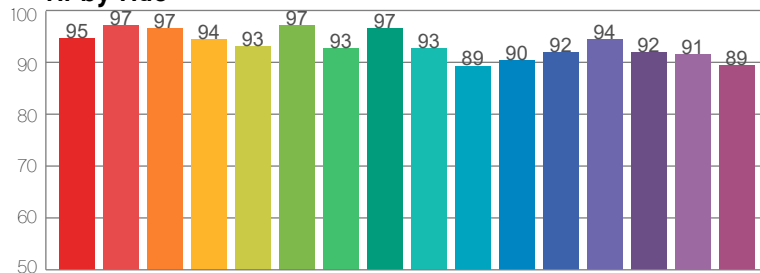
Color Vector Graphic



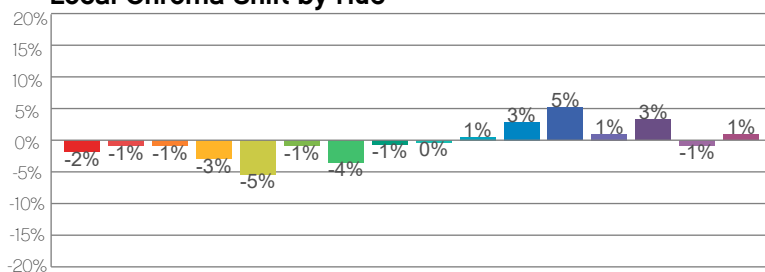
Color Distortion Graphic



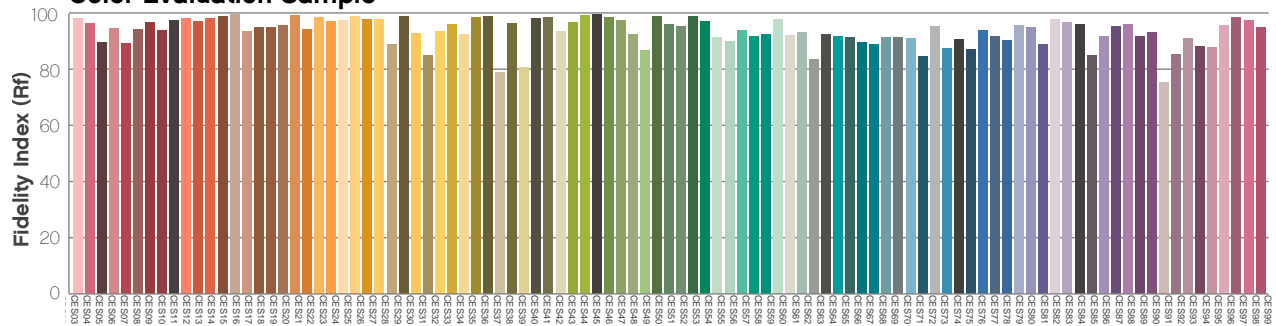
Rf by Hue



Local Chroma Shift by Hue



Color Evaluation Sample



# Photometric & Chromaticity Report

Ovation E-4WW IP: 14° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 17524 lm  
Fixture Peak: 377009 cd  
Fixture Efficacy: 40 lm/W  
Intensity @ 5m: 15080 lux  
Color Temperature: 3175 K  
CRI: 96.8      CRI R9 Value: 82.5  
CQS: 94.6  
TLCI: 97  
TM-30 Rf: 93.3  
TM-30 Rg: 99.0  
Beam Angle (50%): 13.6°  
Field Angle (10%): 16.6°  
Cutoff Angle (3%): 17.1°

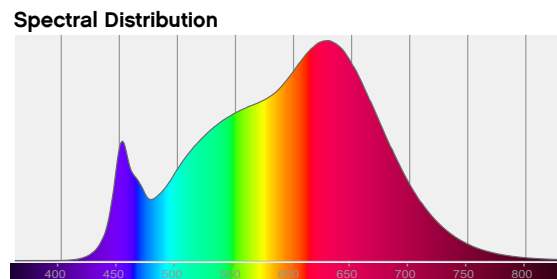
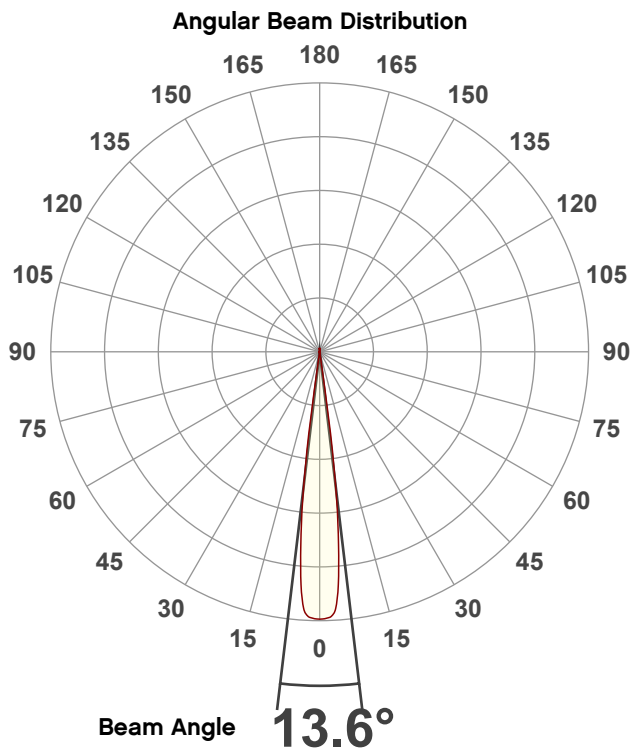


### Conditions

AC Supply: 116 V, 60 Hz  
Power: 440.09 W  
Current: 3.80 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 6/1/2023 to LM-63-2002 Standards.

## Overall Measurement



**Tested Color** (CIE 1931):

X: 0.427

Y: 0.404



**Light Quality**

CRI: 96.8

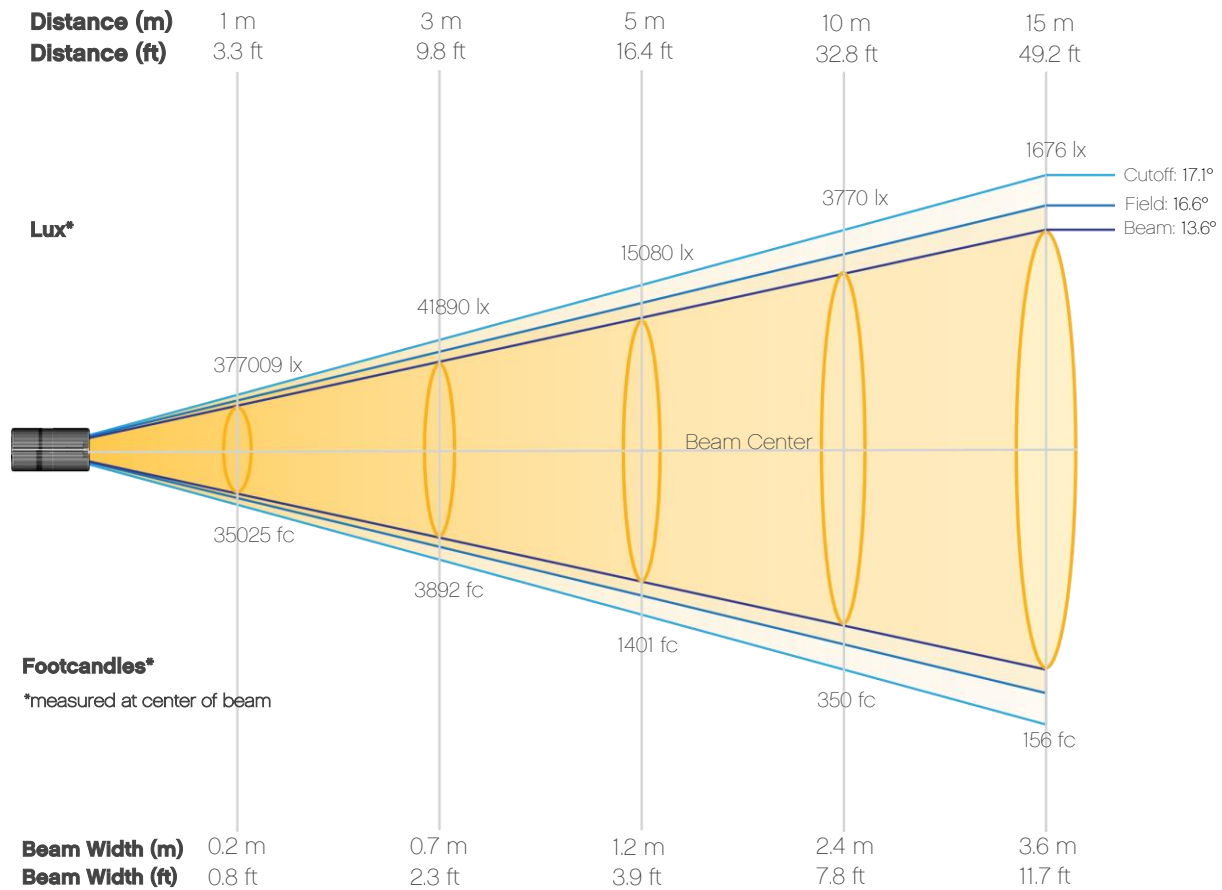
**Color Temperature**

3175 K

# Photometric & Chromaticity Report

Ovation E-4WW IP: 14° Lens - Full Power

## Beam Details

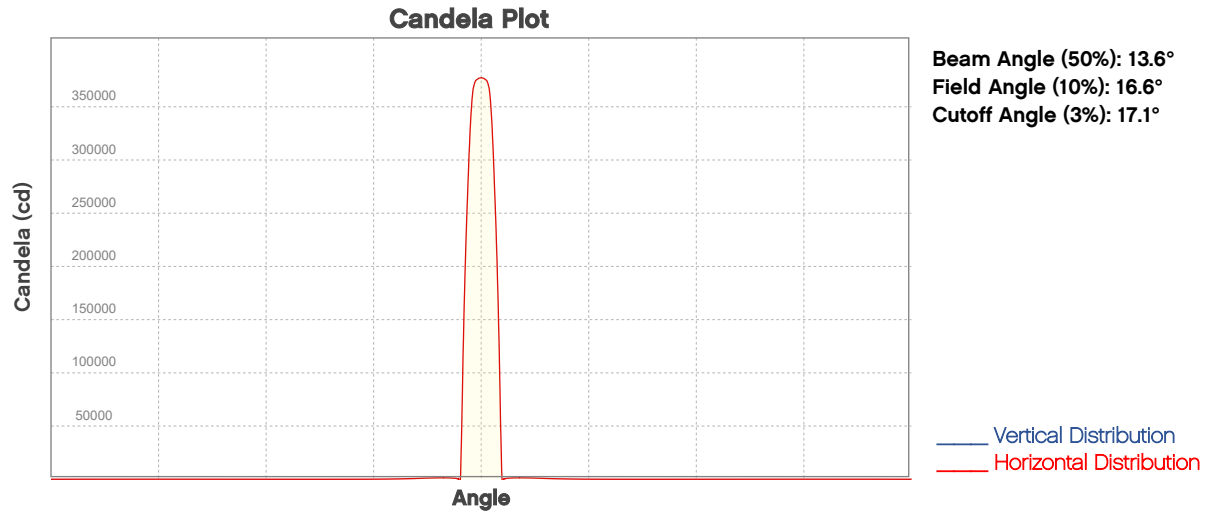


### Beam Intensities from 1-20m (3.3-65.6ft)

<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	377009	94252	41890	23563	15080	10472	7694	5891	4654	3770
<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	3116	2618	2231	1924	1676	1473	1305	1164	1044	943
<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	35025	8756	3892	2189	1401	973	715	547	432	350
<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	289	243	207	179	156	137	121	108	97	88

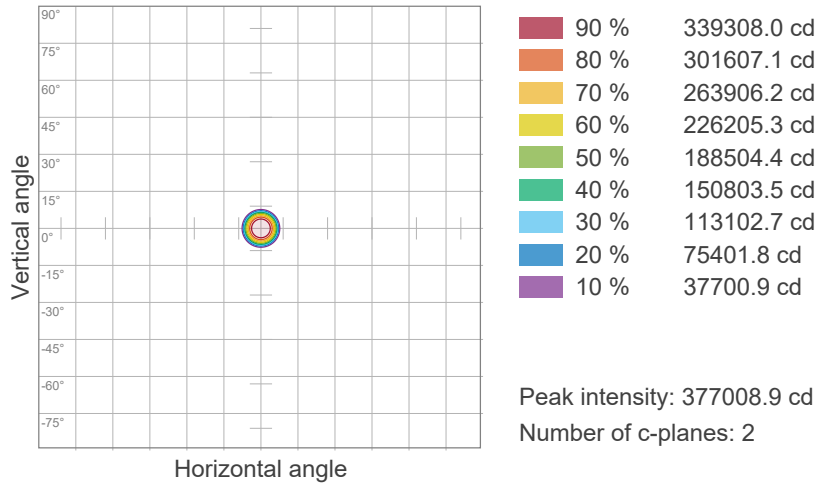
# Photometric & Chromaticity Report

Ovation E-4WW IP: 14° Lens - Full Power

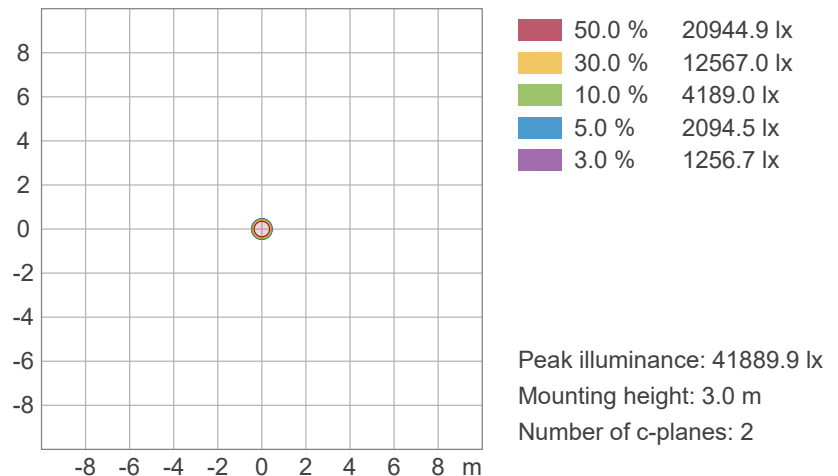


## ISO Diagrams

### ISO Candela Diagram



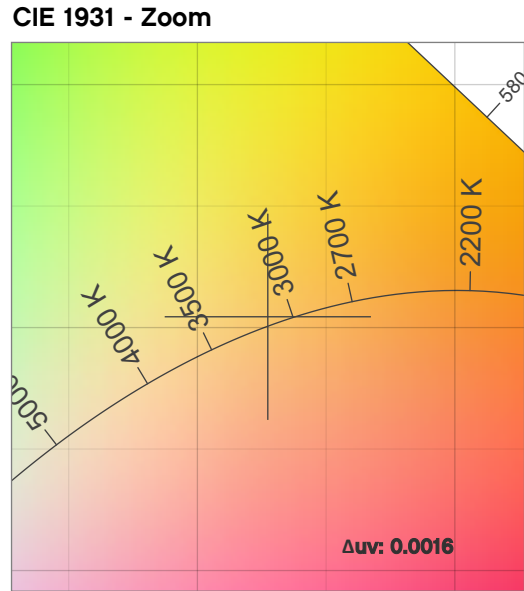
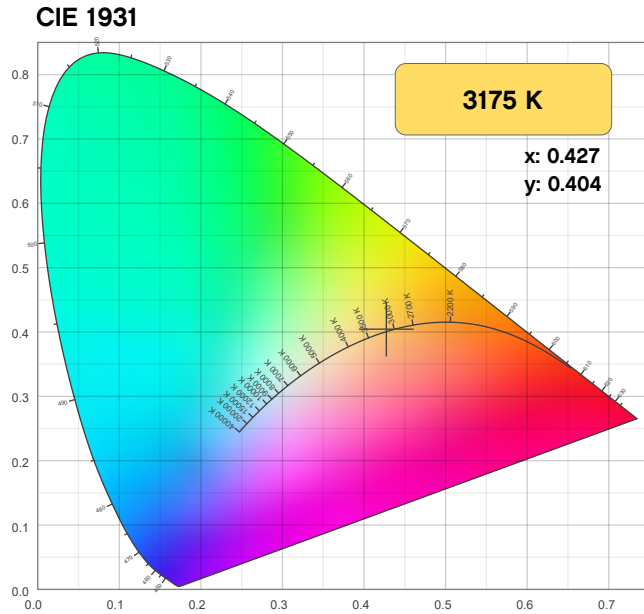
### ISO Lux Diagram



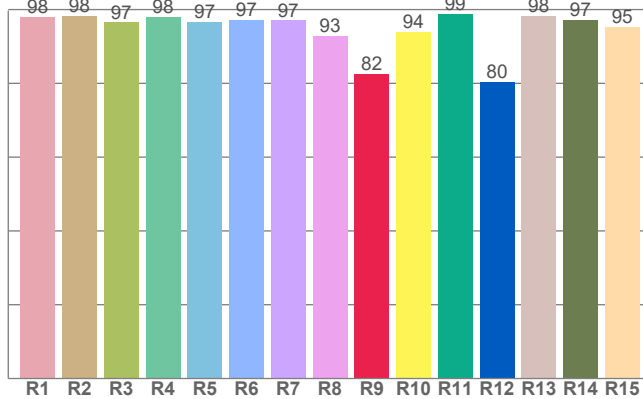
# Photometric & Chromaticity Report

Ovation E-4WW IP: 14° Lens - Full Power

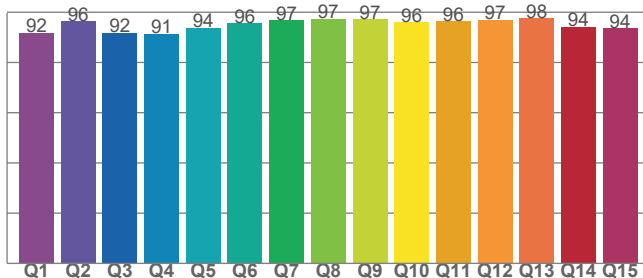
## Chromaticity



**CRI: 96.8 (R1-R8)**



**CQS: 94.6**



**Color Parameters**

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3175 K	0.427	0.404

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0016	0.404	0.244

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
96.8	82.5	94.6

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
97	93.3	99.0



# Photometric & Chromaticity Report

Ovation E-4WW IP: 14° Lens - Full Power

## TM-30 Details

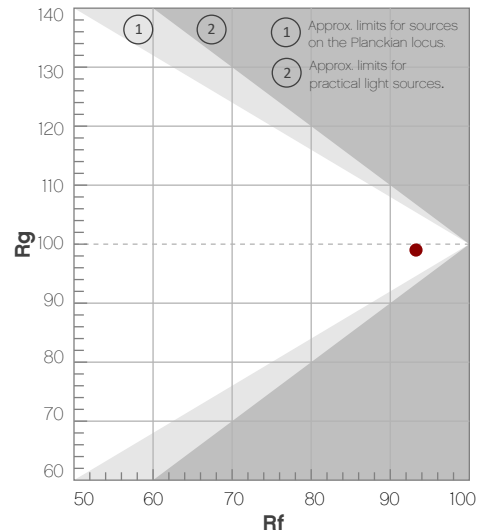
**Rf 93.3**

Fidelity Index  
(Rg)

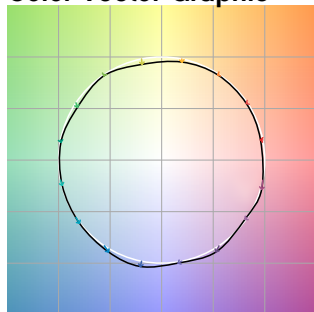
**Rg 99.0**

Gammut Index  
(Rg)

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-2%	1%
2	97	-1%	0%
3	96	-1%	1%
4	94	-3%	-1%
5	93	-5%	0%
6	97	-1%	1%
7	93	-4%	3%
8	97	-1%	2%
9	93	-1%	5%
10	89	0%	7%
11	90	3%	7%
12	92	5%	0%
13	94	1%	-4%
14	92	3%	-5%
15	91	-1%	-3%
16	89	1%	-9%



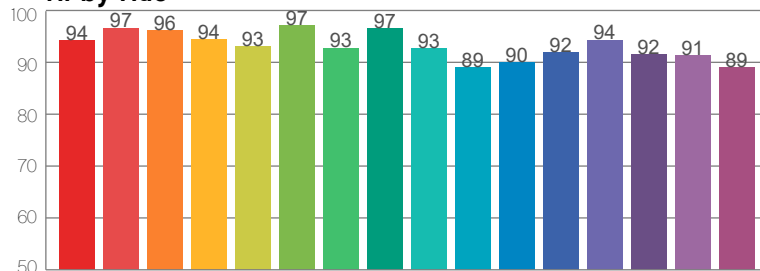
### Color Vector Graphic



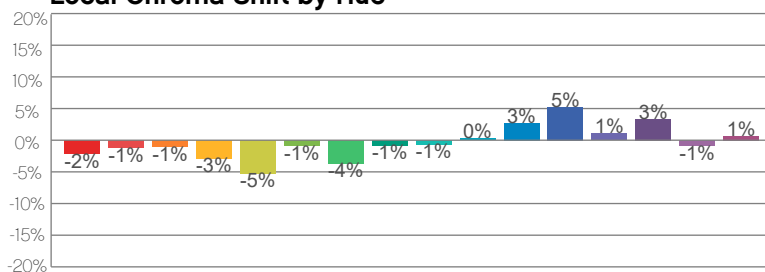
### Color Distortion Graphic



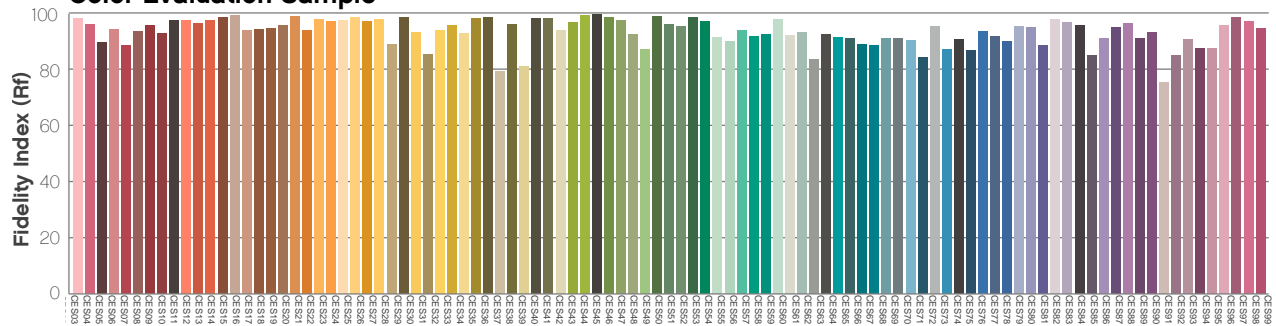
### Rf by Hue



### Local Chroma Shift by Hue



### Color Evaluation Sample



# Photometric & Chromaticity Report

Ovation E-4WW IP: 19° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 16766 lm  
Fixture Peak: 240669 cd  
Fixture Efficacy: 39 lm/W  
Intensity @ 5m: 9627 lux  
Color Temperature: 3155 K  
CRI: 97.0      CRI R9 Value: 83.0  
CQS: 94.6  
TLCI: 97  
TM-30 Rf: 93.3  
TM-30 Rg: 99.2  
Beam Angle (50%): 17°  
Field Angle (10%): 21°  
Cutoff Angle (3%): 22.7°

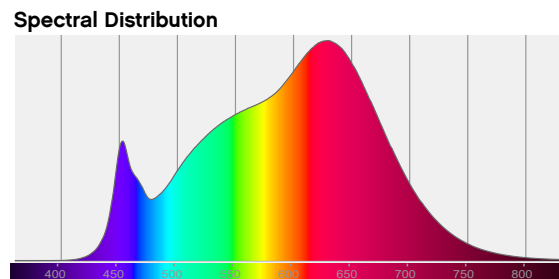
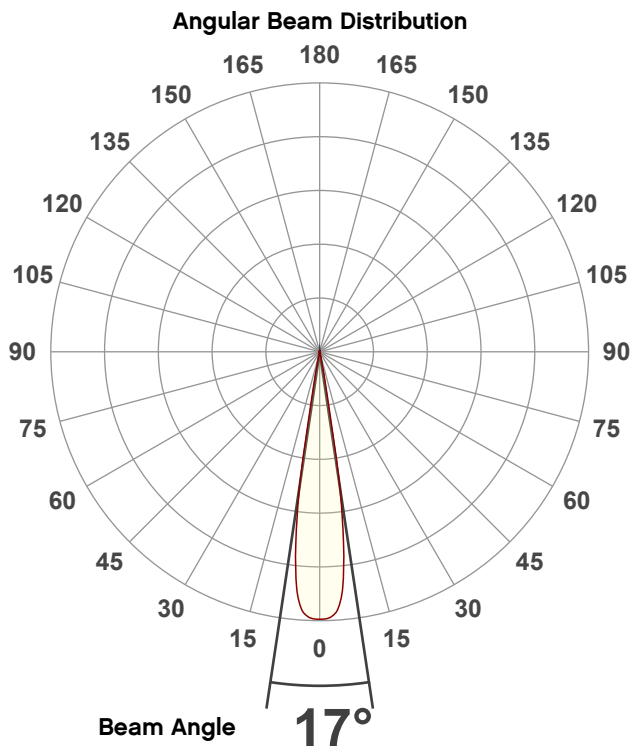


### Conditions

AC Supply: 118 V, 60 Hz  
Power: 430.29 W  
Current: 3.65 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 5/31/2023 to LM-63-2002 Standards.

## Overall Measurement



Tested Color (CIE 1931):

X: 0.428

Y: 0.403



Light Quality

CRI: 97.0

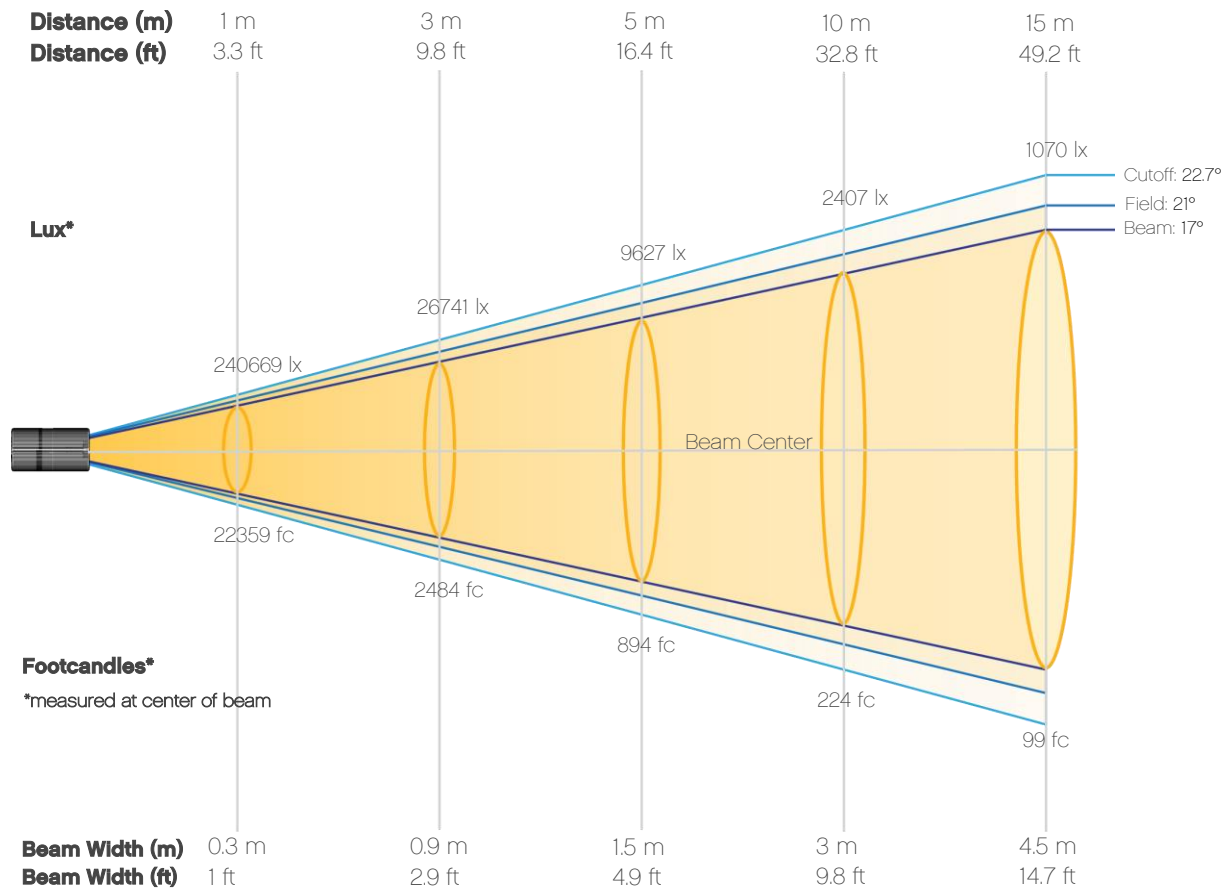
Color Temperature

3155 K

# Photometric & Chromaticity Report

Ovation E-4WW IP: 19° Lens - Full Power

## Beam Details

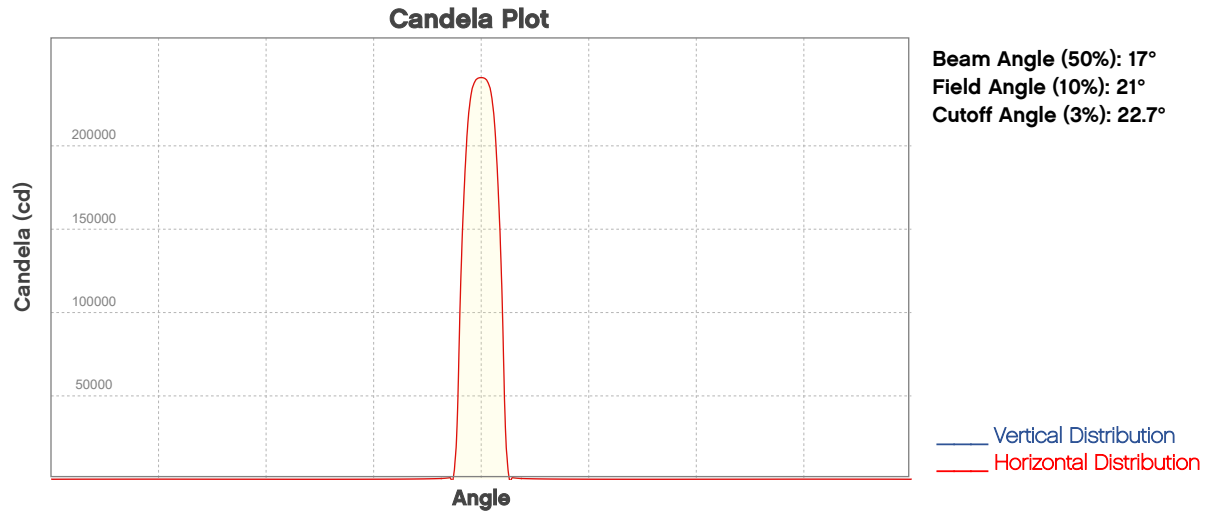


### Beam Intensities from 1-20m (3.3-65.6ft)

<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	240669	60167	26741	15042	9627	6685	4912	3760	2971	2407
<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	1989	1671	1424	1228	1070	940	833	743	667	602
<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	22359	5590	2484	1397	894	621	456	349	276	224
<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	185	155	132	114	99	87	77	69	62	56

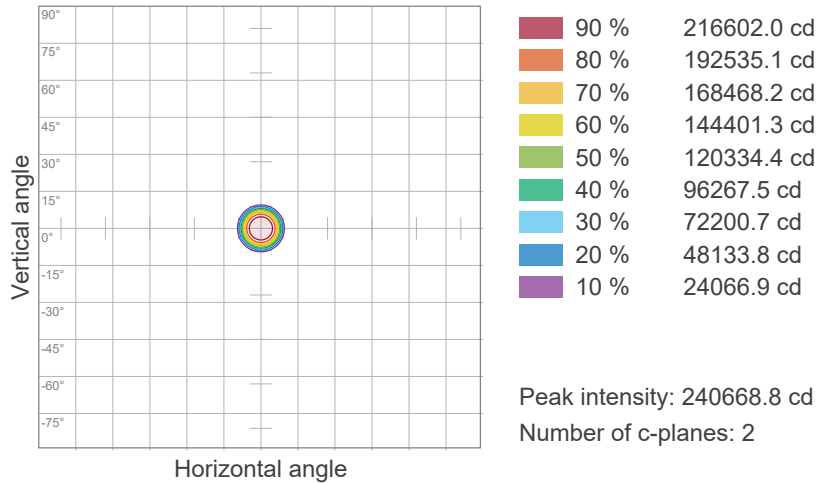
# Photometric & Chromaticity Report

Ovation E-4WW IP: 19° Lens - Full Power

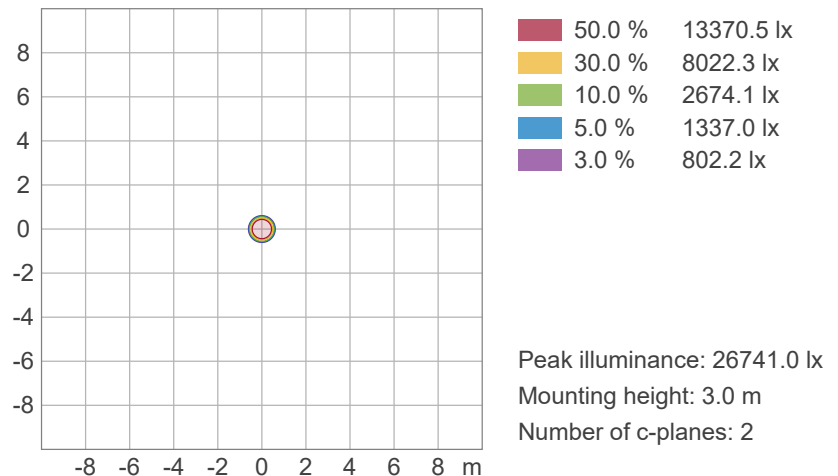


## ISO Diagrams

### ISO Candela Diagram



### ISO Lux Diagram

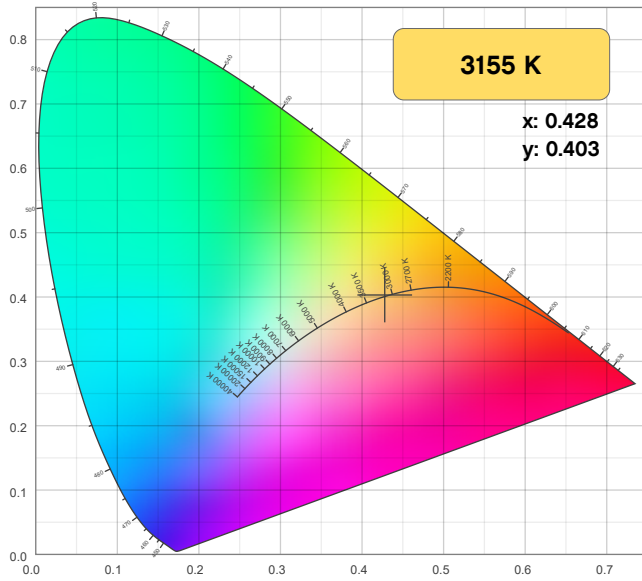


# Photometric & Chromaticity Report

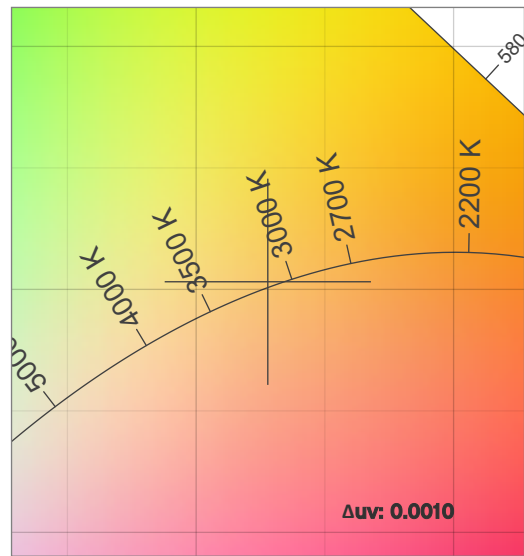
Ovation E-4WW IP: 19° Lens - Full Power

## Chromaticity

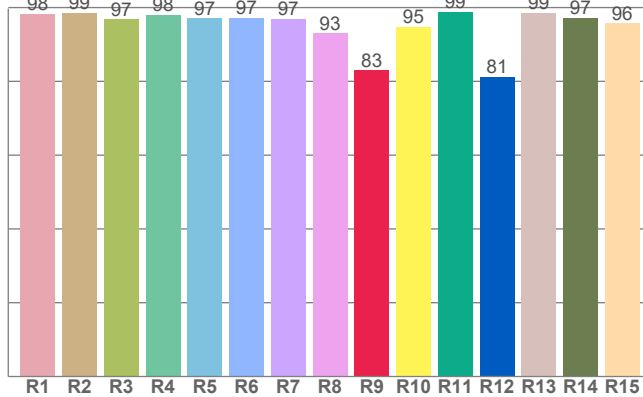
CIE 1931



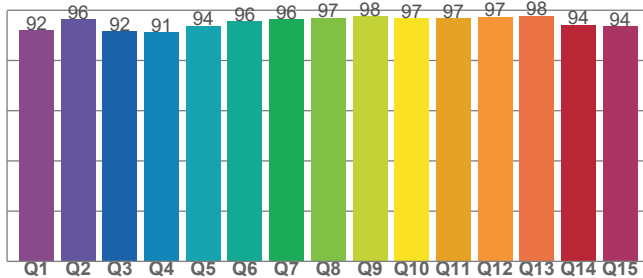
CIE 1931 - Zoom



CRI: 97.0 (R1-R8)



CQS: 94.6



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3155 K	0.428	0.403

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
$\Delta uv$	y	u
0.0010	0.403	0.245

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.0	83.0	94.6

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
97	93.3	99.2

# Photometric & Chromaticity Report

Ovation E-4WW IP: 19° Lens - Full Power

## TM-30 Details

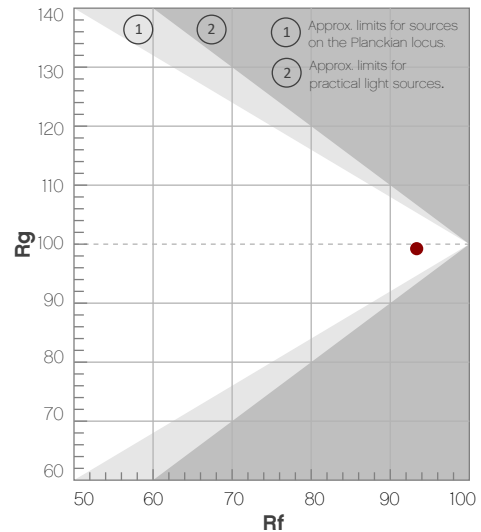
**Rf 93.3**

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

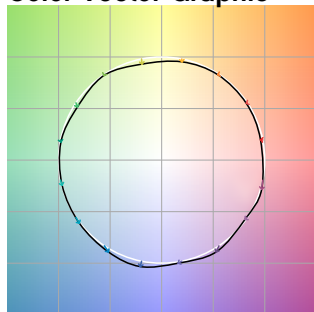
**Rg 99.2**

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

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-2%	1%
2	97	-1%	0%
3	96	-1%	1%
4	95	-3%	-1%
5	93	-5%	1%
6	97	-1%	1%
7	93	-3%	3%
8	97	-1%	2%
9	93	-1%	5%
10	89	0%	7%
11	90	3%	7%
12	92	5%	0%
13	94	1%	-4%
14	92	3%	-6%
15	91	-1%	-3%
16	89	1%	-9%



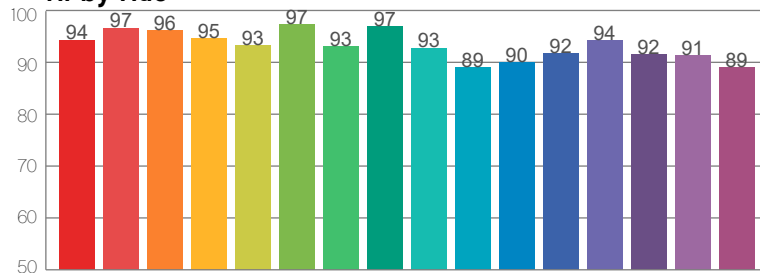
Color Vector Graphic



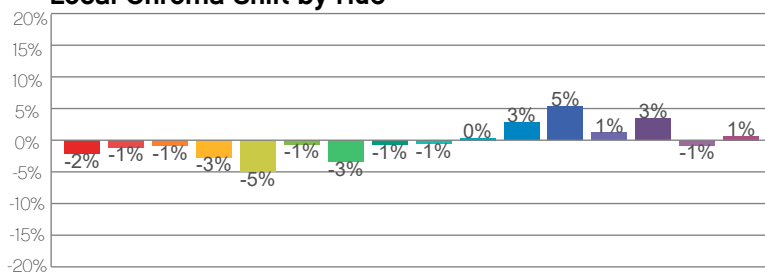
Color Distortion Graphic



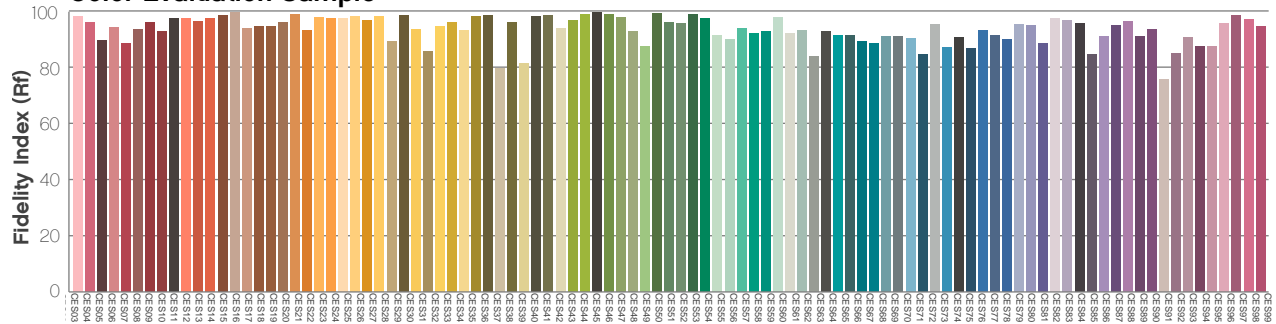
R<sub>f</sub> by Hue



Local Chroma Shift by Hue



Color Evaluation Sample



# Photometric & Chromaticity Report

Ovation E-4WW IP: 26° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 21213 lm  
Fixture Peak: 222076 cd  
Fixture Efficacy: 49 lm/W  
Intensity @ 5m: 8883 lux  
Color Temperature: 3233 K  
CRI: 97.8      CRI R9 Value: 87.5  
CQS: 95.1  
TLCI: 98  
TM-30 Rf: 93.6  
TM-30 Rg: 99.8  
Beam Angle (50%): 18.9°  
Field Angle (10%): 27.1°  
Cutoff Angle (3%): 29.4°

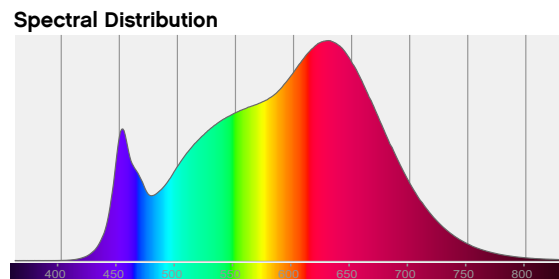
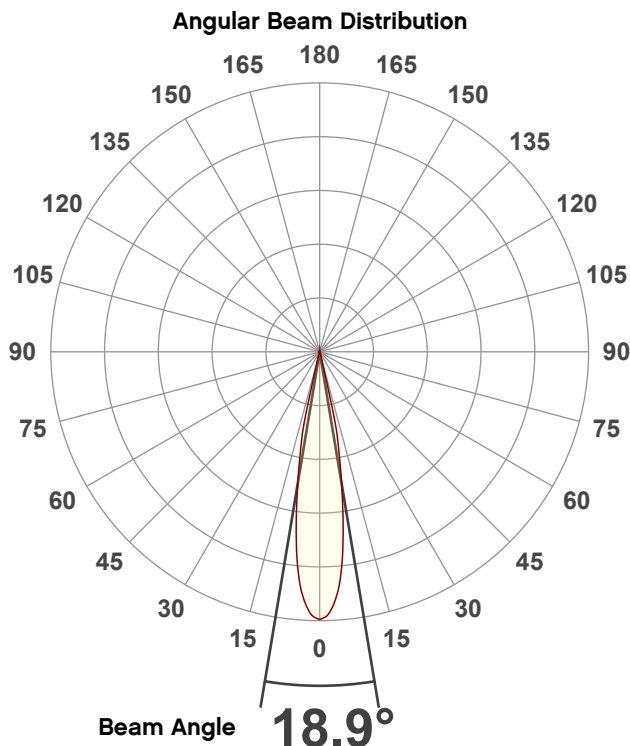


### Conditions

AC Supply: 117 V, 60 Hz  
Power: 438.75 W  
Current: 3.77 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 5/31/2023 to LM-63-2002 Standards.

## Overall Measurement



Tested Color (CIE 1931):

X: 0.422

Y: 0.399



Light Quality

CRI: 97.8

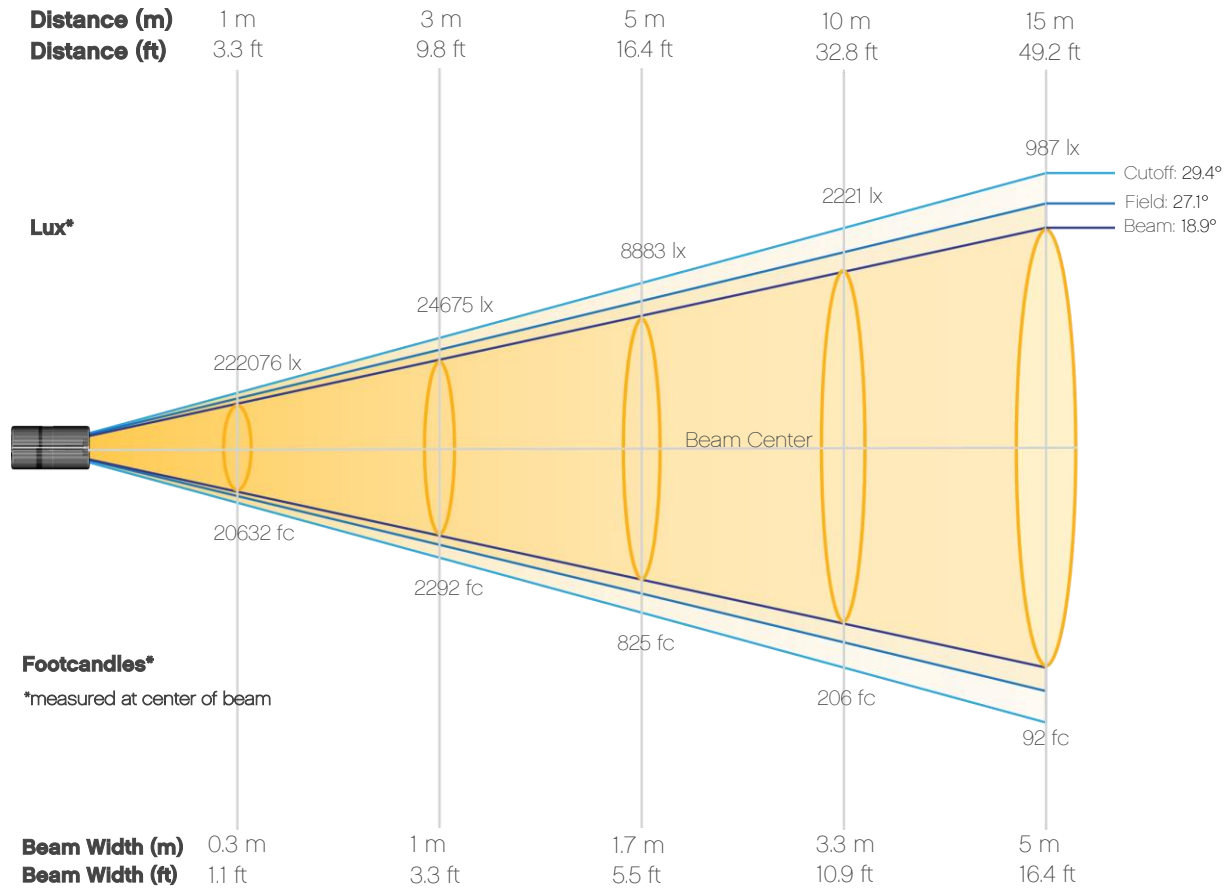
Color Temperature

3233 K

# Photometric & Chromaticity Report

Ovation E-4WW IP: 26° Lens - Full Power

## Beam Details



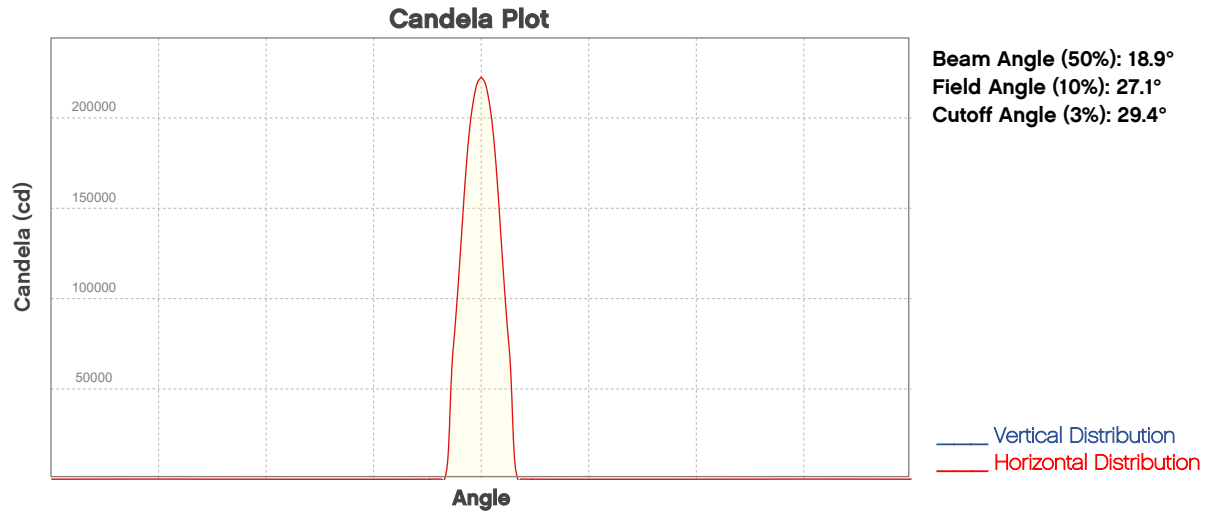
### Beam Intensities from 1-20m (3.3-65.6ft)

<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	222076	55519	24675	13880	8883	6169	4532	3470	2742	2221
<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	1835	1542	1314	1133	987	867	768	685	615	555
<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	20632	5158	2292	1289	825	573	421	322	255	206
<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	171	143	122	105	92	81	71	64	57	52



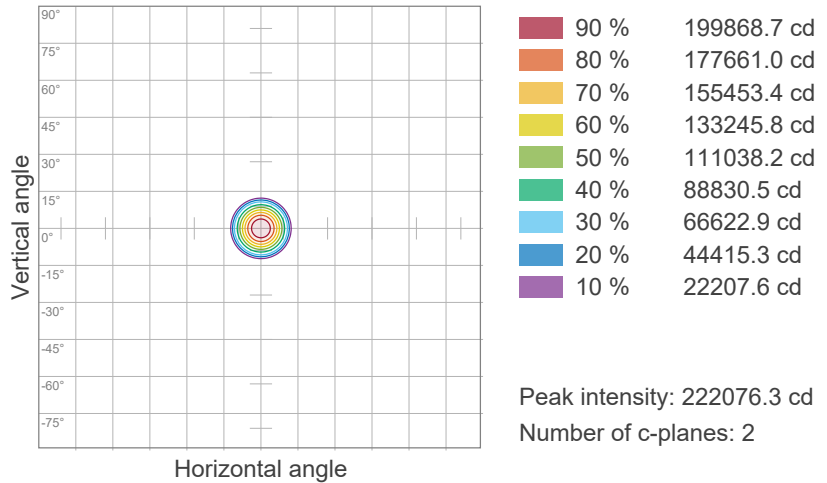
# Photometric & Chromaticity Report

Ovation E-4WW IP: 26° Lens - Full Power

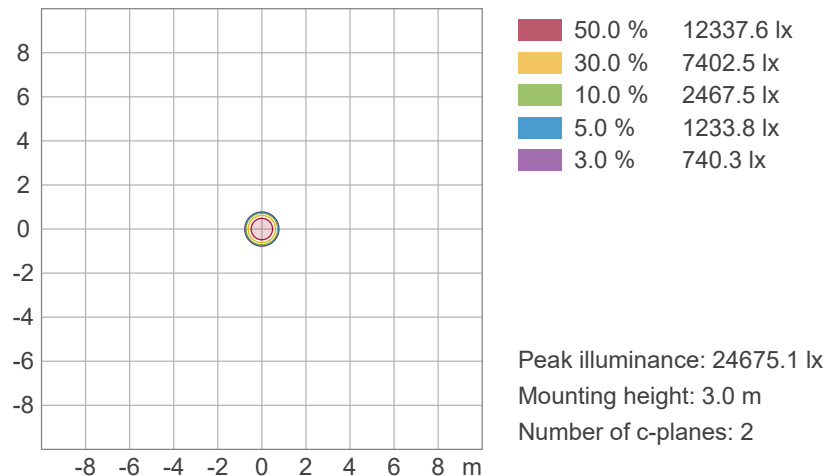


## ISO Diagrams

### ISO Candela Diagram



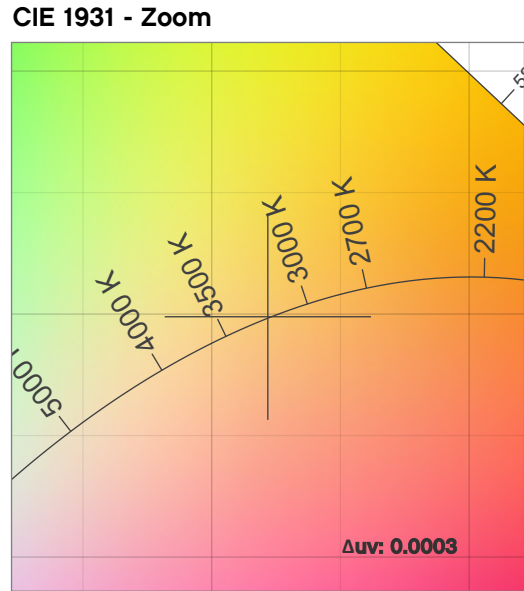
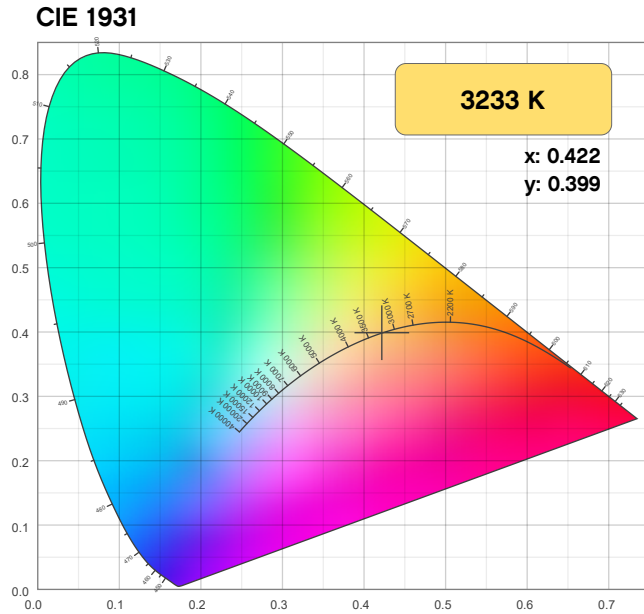
### ISO Lux Diagram



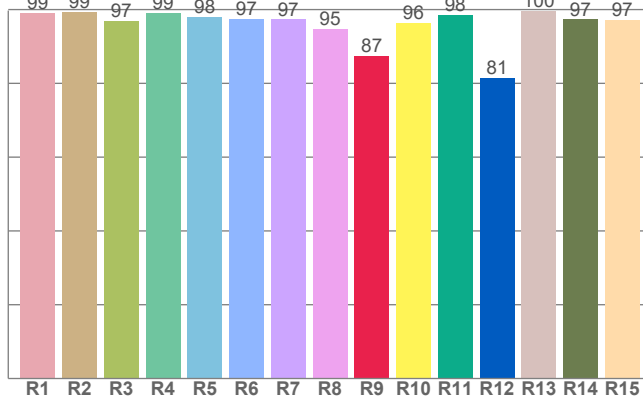
# Photometric & Chromaticity Report

Ovation E-4WW IP: 26° Lens - Full Power

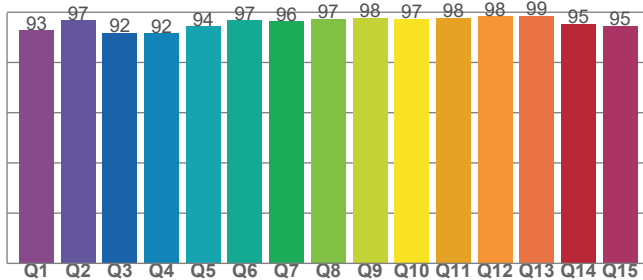
## Chromaticity



**CRI: 97.8 (R1-R8)**



**CQS: 95.1**



**Color Parameters**

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3233 K	0.422	0.399

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0003	0.399	0.243

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.8	87.5	95.1

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
98	93.6	99.8

# Photometric & Chromaticity Report

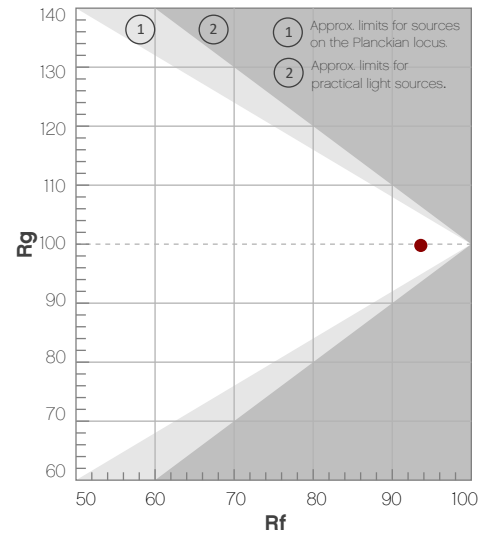
Ovation E-4WW IP: 26° Lens - Full Power

## TM-30 Details

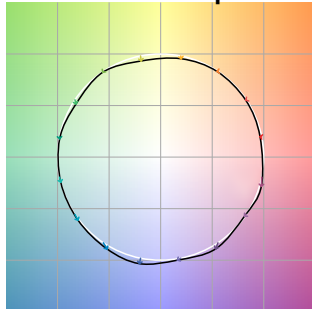
**Rf 93.6**  
Fidelity Index  
(Rg)

**Rg 99.8**  
Gammut Index  
(Rg)

		Graphic shifts (%)		
Hue Bin	R <sub>f</sub>	Chroma	Hue	
1	95	-2%	1%	
2	97	-1%	0%	
3	96	-1%	1%	
4	95	-3%	-1%	
5	93	-5%	0%	
6	97	0%	1%	
7	93	-3%	3%	
8	97	0%	2%	
9	93	0%	5%	
10	90	1%	6%	
11	90	3%	6%	
12	92	5%	0%	
13	95	1%	-4%	
14	92	4%	-5%	
15	92	-1%	-3%	
16	89	1%	-9%	



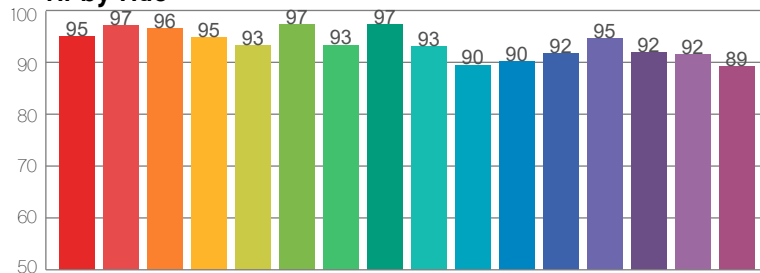
Color Vector Graphic



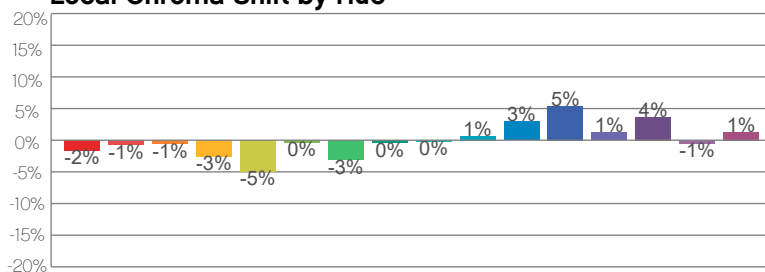
Color Distortion Graphic



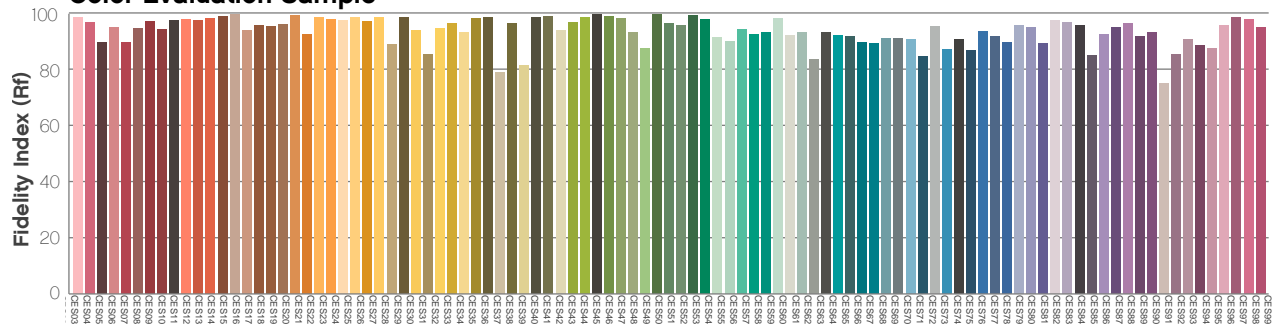
Rf by Hue



Local Chroma Shift by Hue



Color Evaluation Sample



# Photometric & Chromaticity Report

Ovation E-4WW IP: 36° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 21219 lm  
Fixture Peak: 124577 cd  
Fixture Efficacy: 50 lm/W  
Intensity @ 5m: 4983 lux  
Color Temperature: 3183 K  
CRI: 97.7      CRI R9 Value: 88.1  
CQS: 94.7  
TLCI: 97  
TM-30 Rf: 93.7  
TM-30 Rg: 100.4  
Beam Angle (50%): 25.2°  
Field Angle (10%): 36.1°  
Cutoff Angle (3%): 39.4°

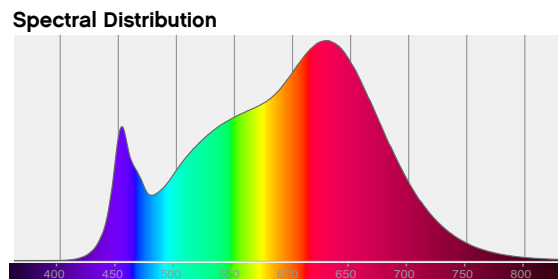
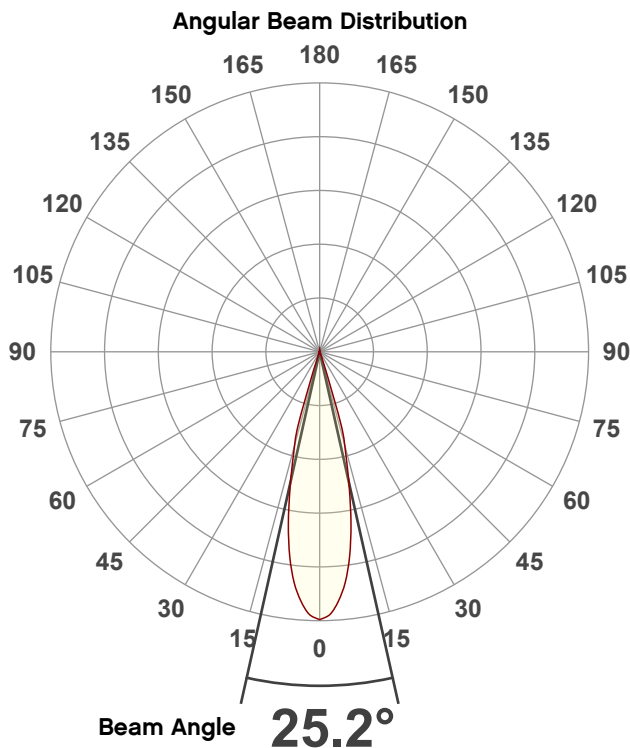


### Conditions

AC Supply: 118 V, 60 Hz  
Power: 427.56 W  
Current: 3.63 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 5/31/2023 to LM-63-2002 Standards.

## Overall Measurement



Tested Color (CIE 1931):

X: 0.423

Y: 0.395



Light Quality

CRI: 97.7



Color Temperature

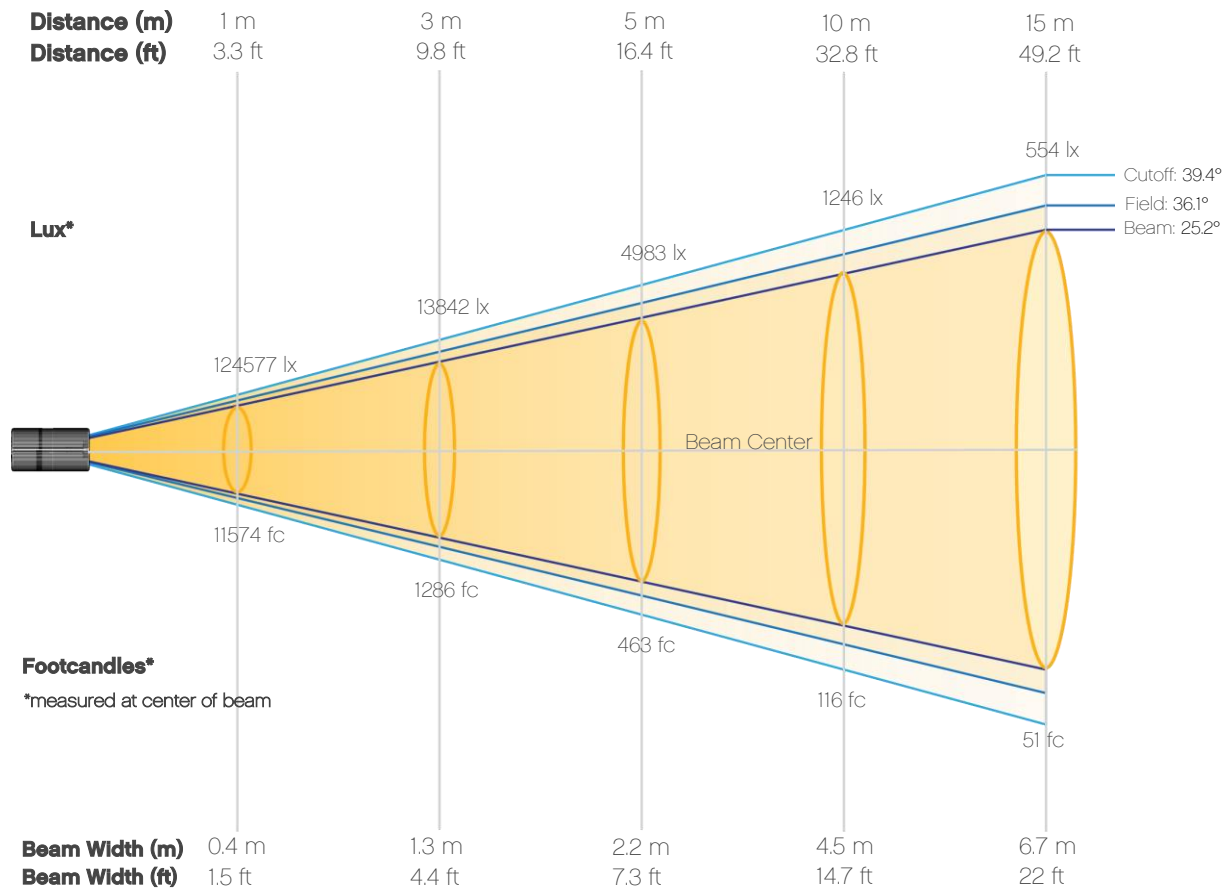
3183 K



# Photometric & Chromaticity Report

Ovation E-4WW IP: 36° Lens - Full Power

## Beam Details

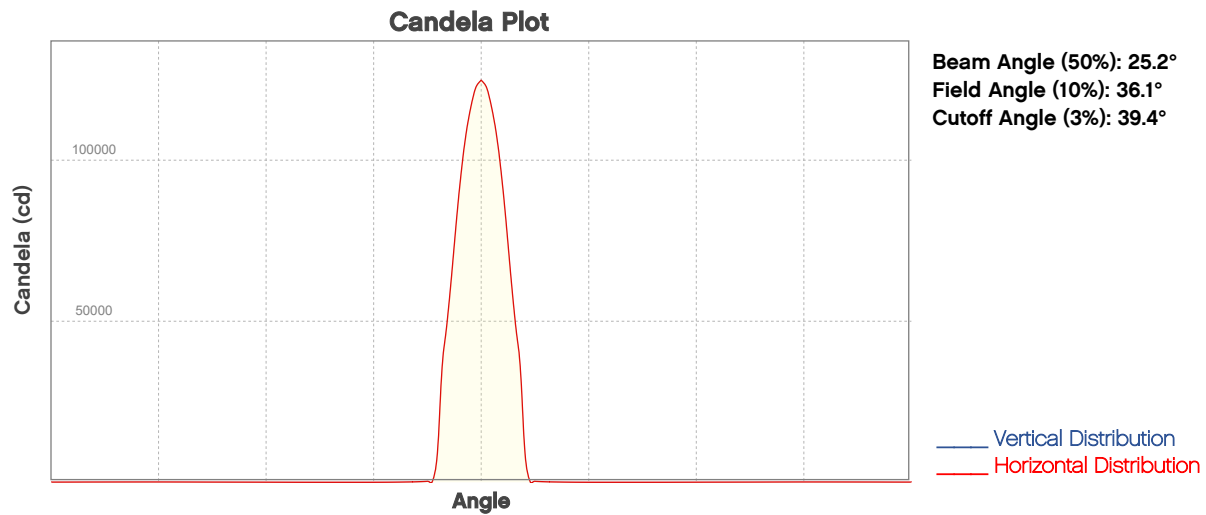


### Beam Intensities from 1-20m (3.3-65.6ft)

<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	124577	31144	13842	7786	4983	3460	2542	1947	1538	1246
<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	1030	865	737	636	554	487	431	384	345	311
<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	11574	2893	1286	723	463	321	236	181	143	116
<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	96	80	68	59	51	45	40	36	32	29

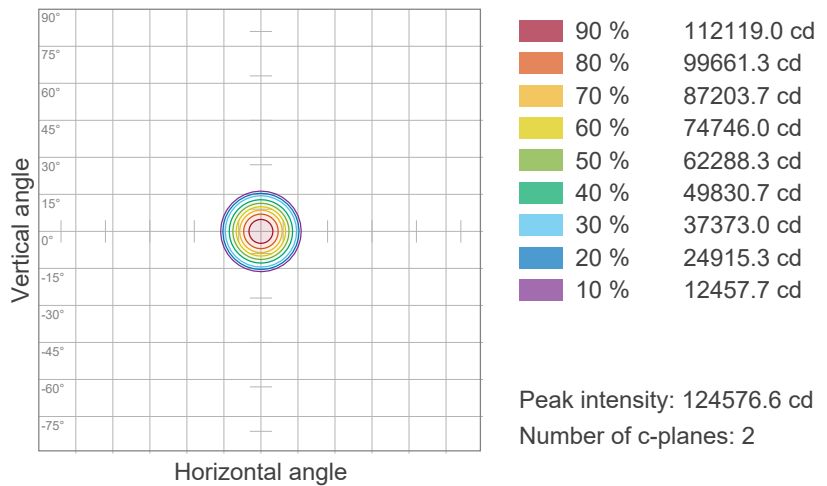
# Photometric & Chromaticity Report

Ovation E-4WW IP: 36° Lens - Full Power

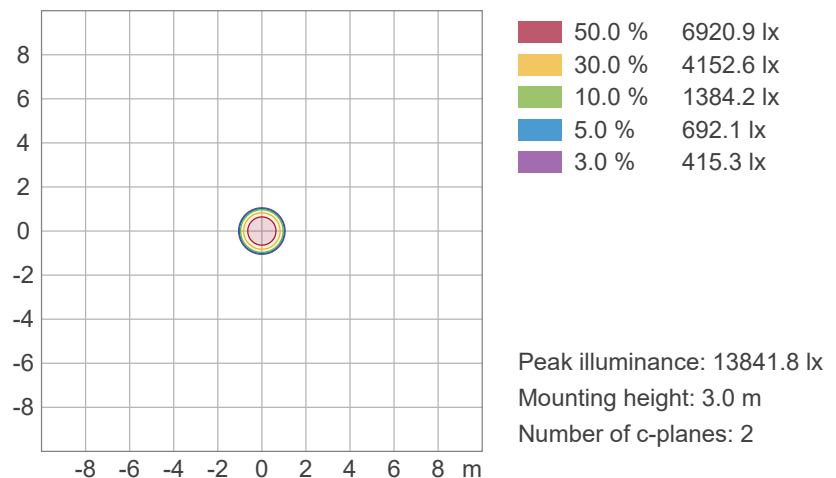


## ISO Diagrams

### ISO Candela Diagram



### ISO Lux Diagram

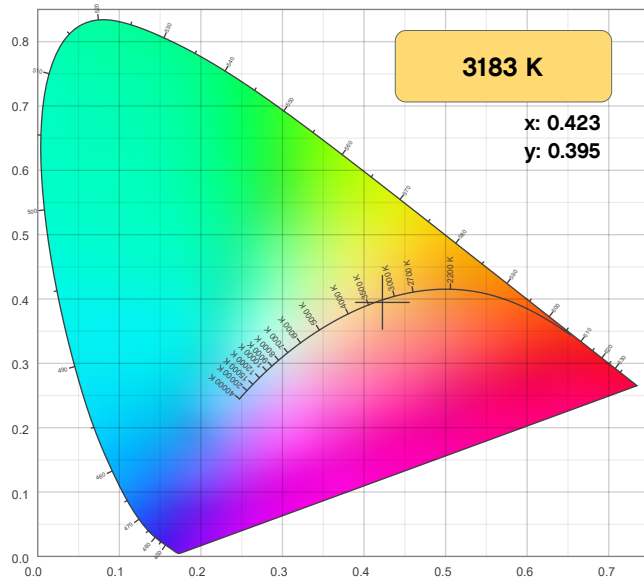


# Photometric & Chromaticity Report

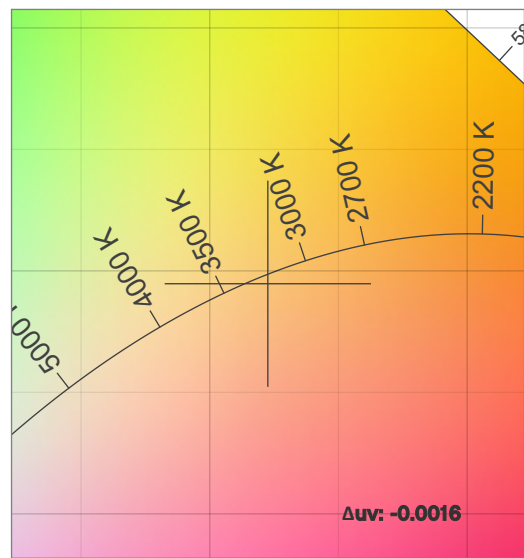
Ovation E-4WW IP: 36° Lens - Full Power

## Chromaticity

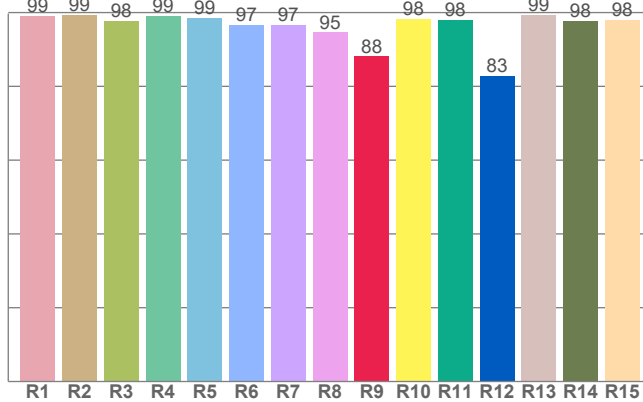
CIE 1931



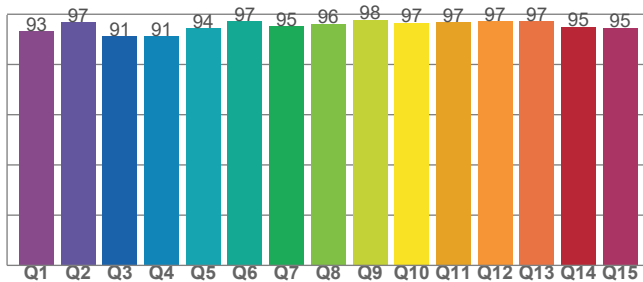
CIE 1931 - Zoom



CRI: 97.7 (R1-R8)



CQS: 94.7



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3183 K	0.423	0.395

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
-0.0016	0.395	0.245

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.7	88.1	94.7

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
97	93.7	100.4

# Photometric & Chromaticity Report

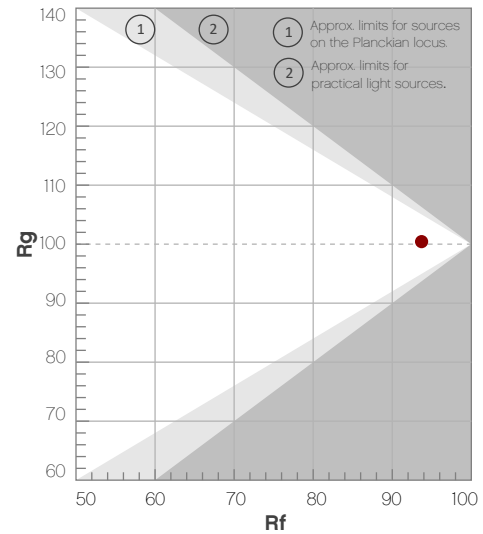
Ovation E-4WW IP: 36° Lens - Full Power

## TM-30 Details

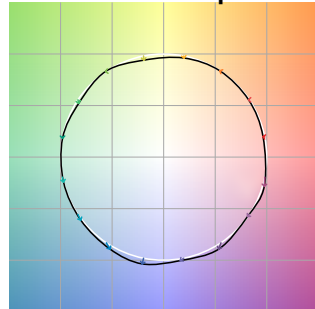
**Rf 93.7**  
Fidelity Index  
(Rg)

**Rg 100.4**  
Gammut Index  
(Rg)

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	1%
2	97	-1%	0%
3	96	0%	1%
4	95	-2%	-1%
5	94	-4%	0%
6	97	0%	1%
7	94	-3%	2%
8	98	0%	1%
9	93	0%	5%
10	90	1%	6%
11	90	3%	6%
12	92	6%	0%
13	94	2%	-4%
14	92	4%	-5%
15	92	0%	-3%
16	89	1%	-9%



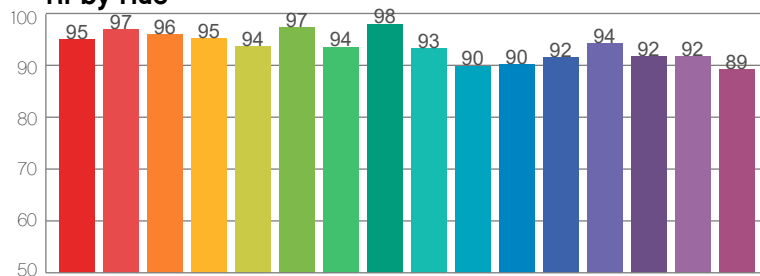
Color Vector Graphic



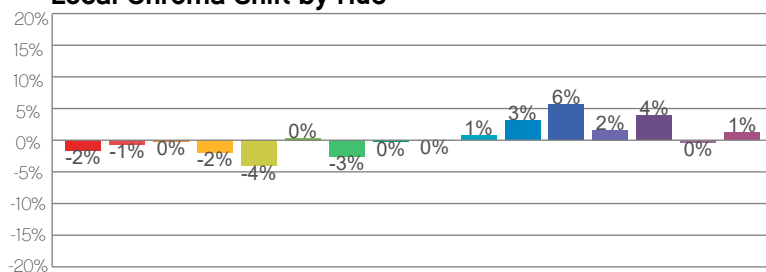
Color Distortion Graphic



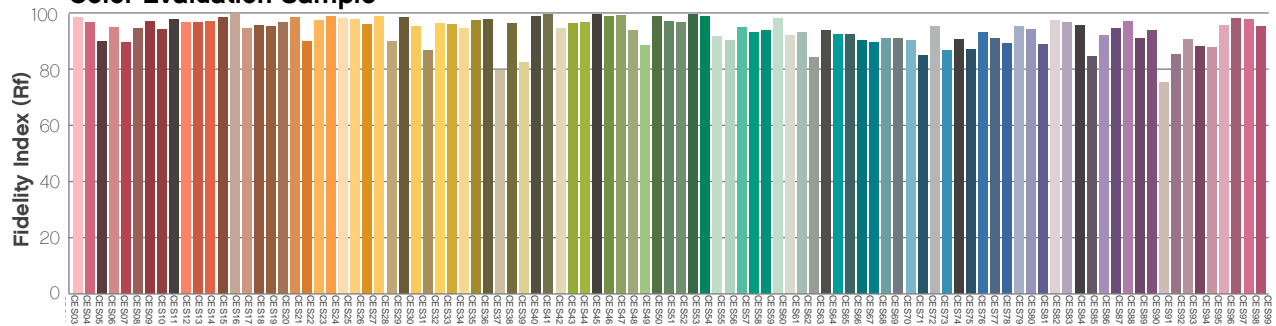
Rf by Hue



Local Chroma Shift by Hue



Color Evaluation Sample





# Photometric & Chromaticity Report

Ovation E-4WW IP: 50° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 20831 lm  
Fixture Peak: 54967 cd  
Fixture Efficacy: 48 lm/W  
Intensity @ 5m: 2199 lux  
Color Temperature: 3188 K  
CRI: 97.7      CRI R9 Value: 87.4  
CQS: 94.8  
TLCI: 97  
TM-30 Rf: 93.8  
TM-30 Rg: 100.4  
Beam Angle (50%): 38.7°  
Field Angle (10%): 53.1°  
Cutoff Angle (3%): 56.5°

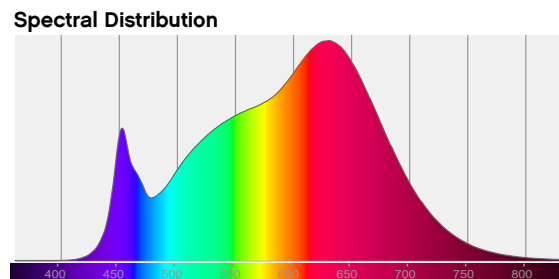
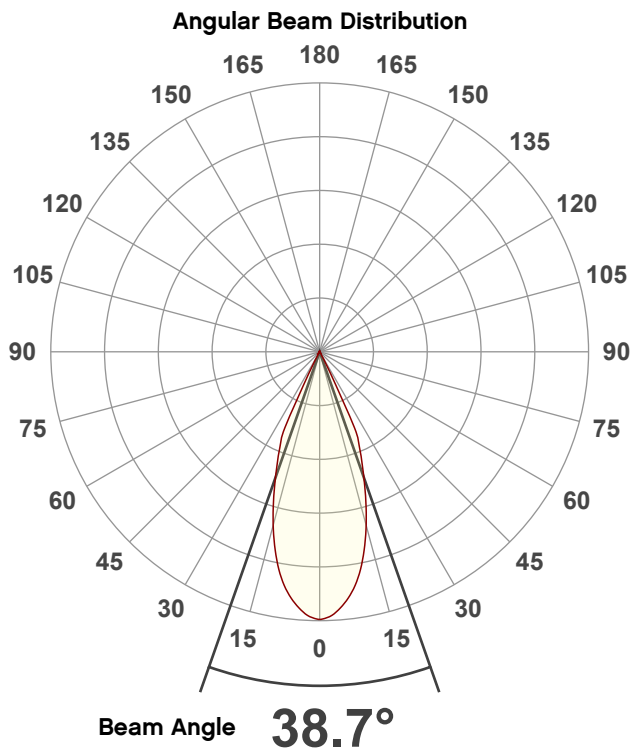


### Conditions

AC Supply: 116 V, 60 Hz  
Power: 440.9 W  
Current: 3.81 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 6/1/2023 to LM-63-2002 Standards.

## Overall Measurement



**Tested Color** (CIE 1931):

X: 0.423

Y: 0.397



**Light Quality**

**CRI: 97.7**

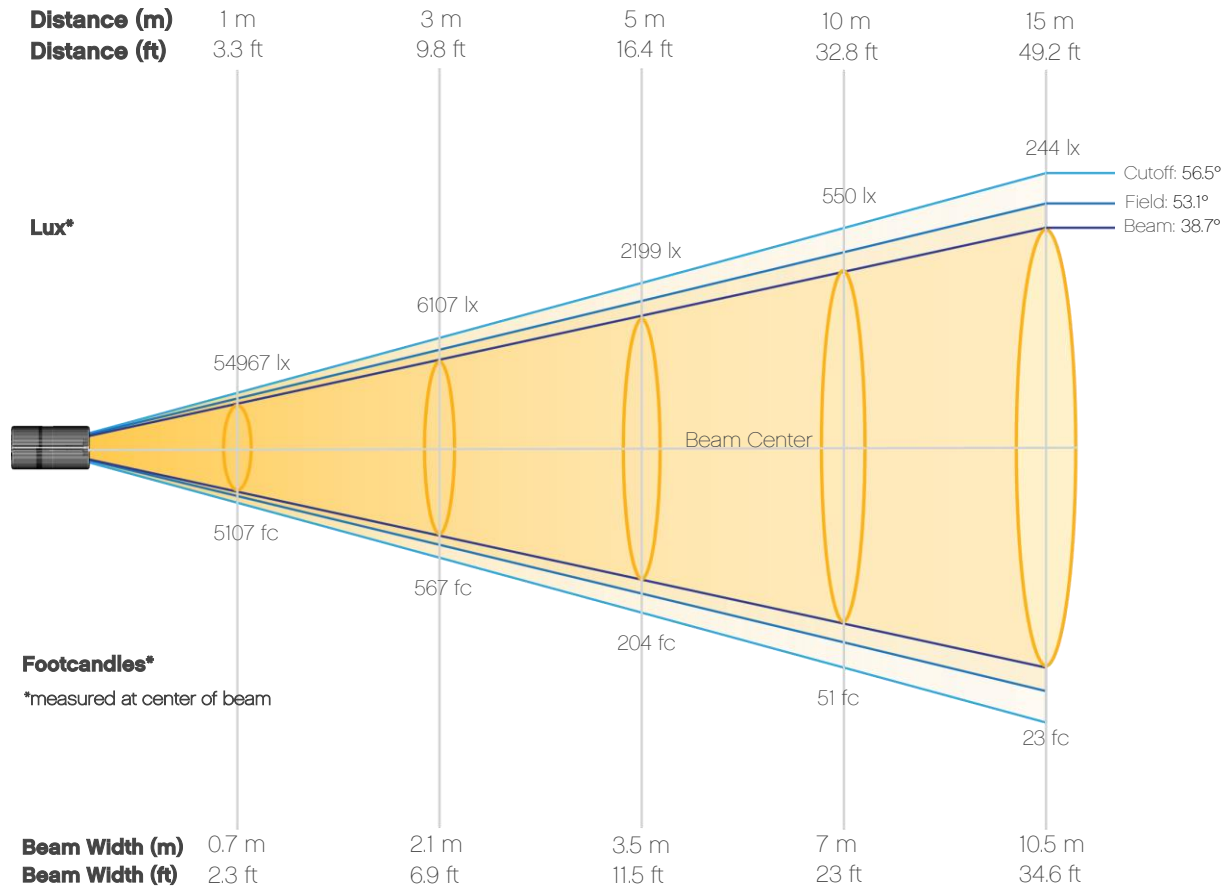
**Color Temperature**

**3188 K**

# Photometric & Chromaticity Report

Ovation E-4WW IP: 50° Lens - Full Power

## Beam Details

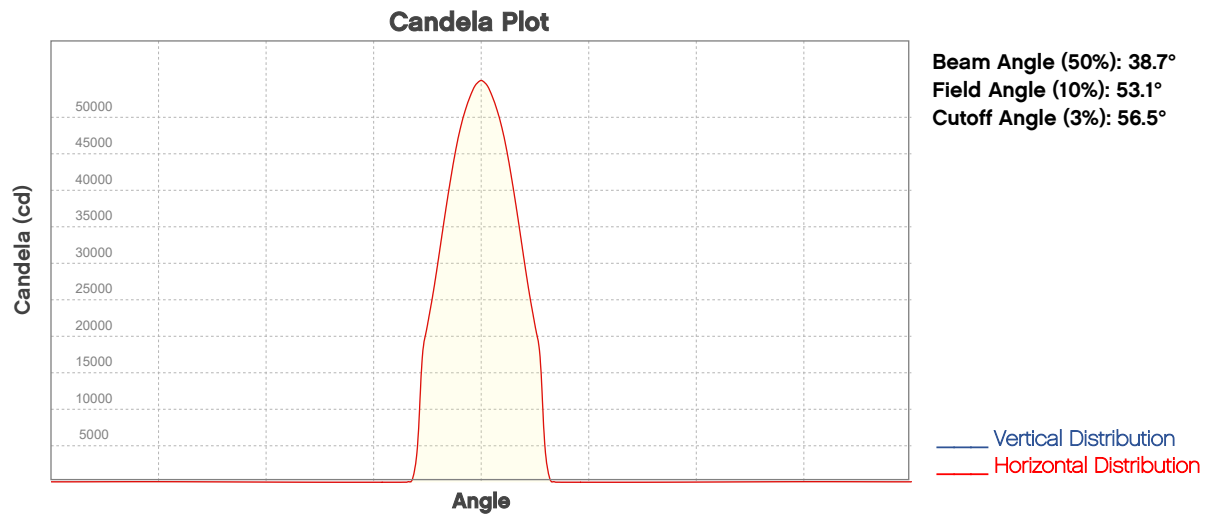


### Beam Intensities from 1-20m (3.3-65.6ft)

<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	54967	13742	6107	3435	2199	1527	1122	859	679	550
<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	454	382	325	280	244	215	190	170	152	137
<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	5107	1277	567	319	204	142	104	80	63	51
<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	42	35	30	26	23	20	18	16	14	13

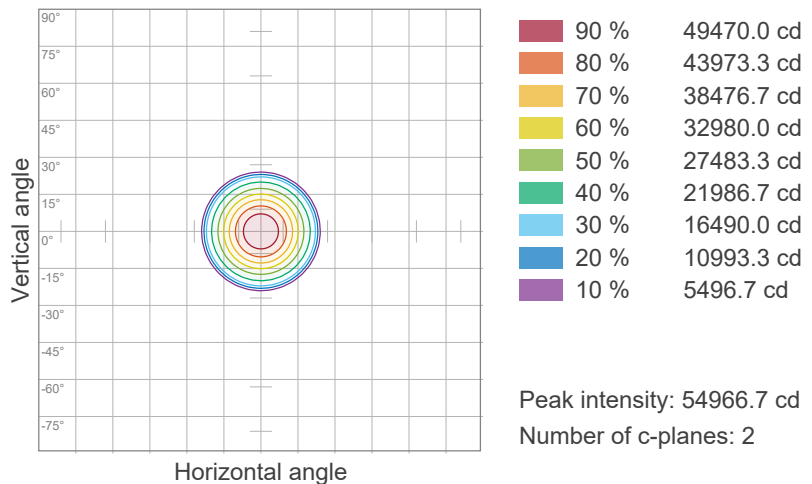
# Photometric & Chromaticity Report

Ovation E-4WW IP: 50° Lens - Full Power

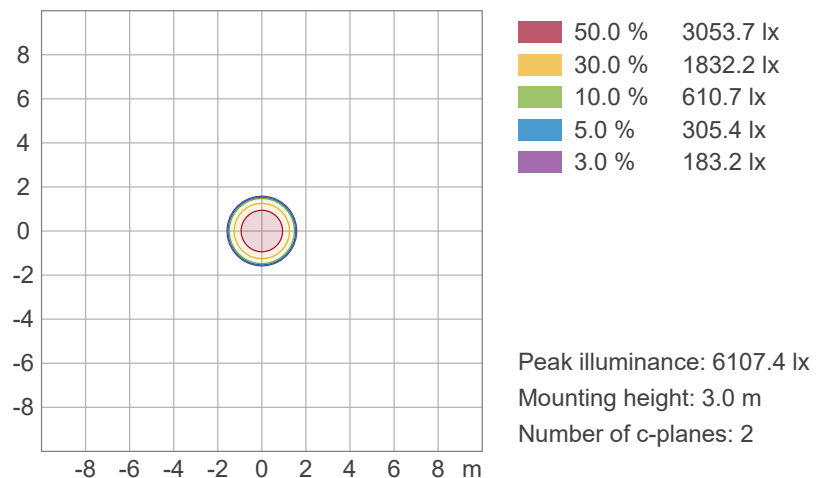


## ISO Diagrams

### ISO Candela Diagram



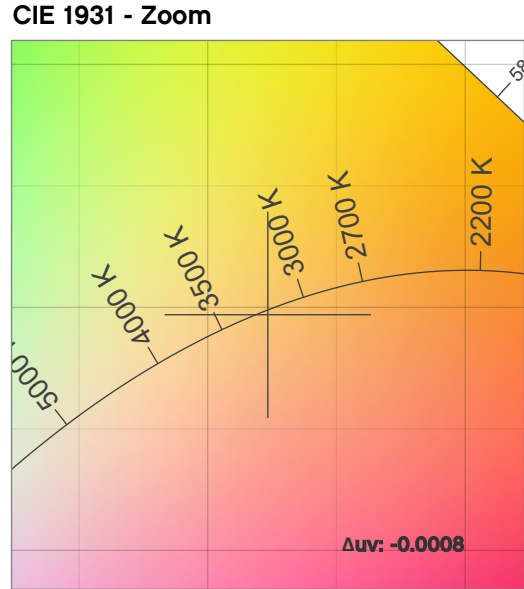
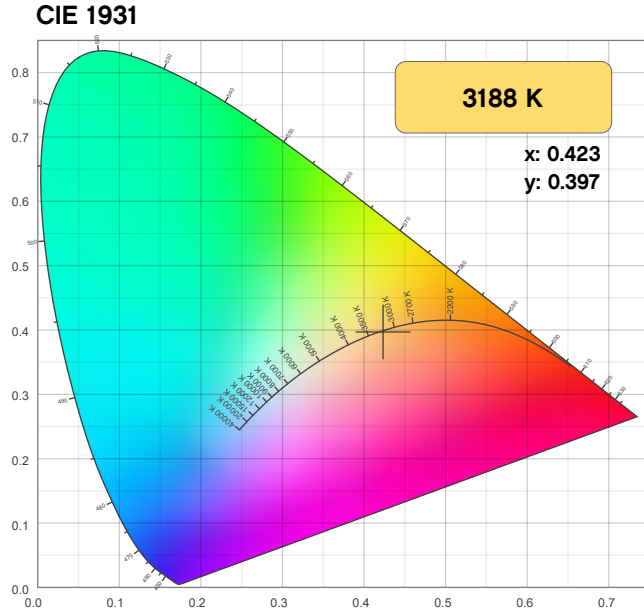
### ISO Lux Diagram



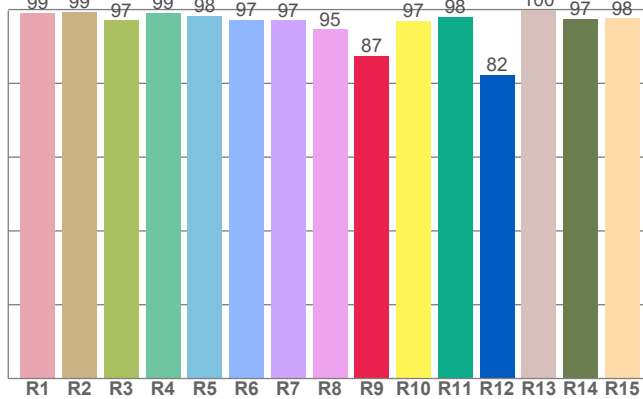
# Photometric & Chromaticity Report

Ovation E-4WW IP: 50° Lens - Full Power

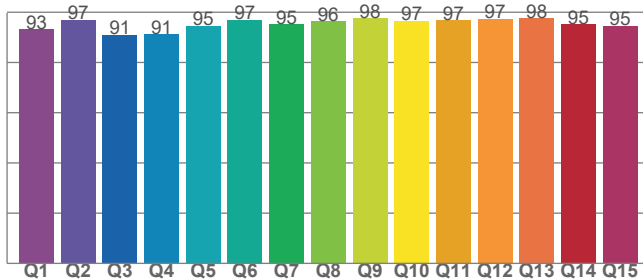
## Chromaticity



**CRI: 97.7 (R1-R8)**



**CQS: 94.8**



**Color Parameters**

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3188 K	0.423	0.397

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
-0.0008	0.397	0.245

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.7	87.4	94.8

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
97	93.8	100.4

# Photometric & Chromaticity Report

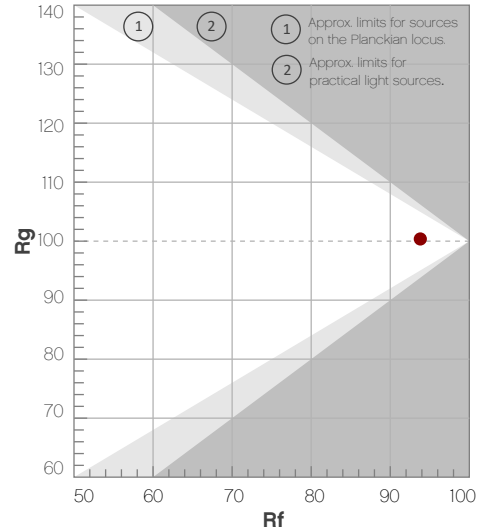
Ovation E-4WW IP: 50° Lens - Full Power

## TM-30 Details

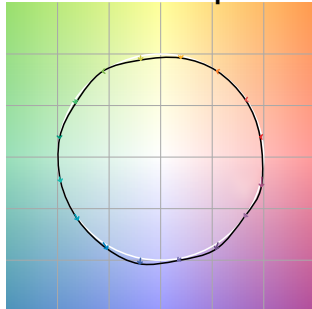
**Rf 93.8**  
Fidelity Index  
(Rg)

**Rg 100.4**  
Gammut Index  
(Rg)

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	1%
2	97	-1%	0%
3	96	0%	1%
4	95	-2%	0%
5	94	-4%	1%
6	97	0%	1%
7	94	-2%	2%
8	98	0%	1%
9	94	0%	4%
10	90	0%	6%
11	90	3%	6%
12	92	6%	0%
13	95	2%	-3%
14	92	4%	-5%
15	92	0%	-3%
16	89	1%	-9%



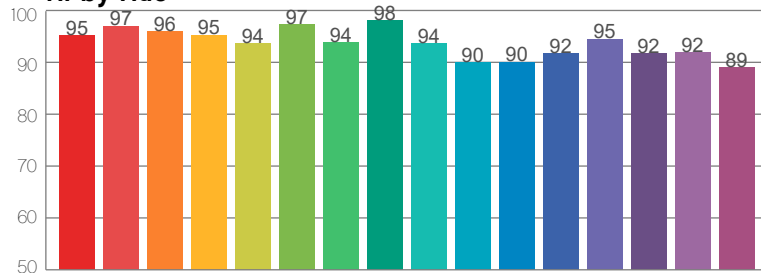
Color Vector Graphic



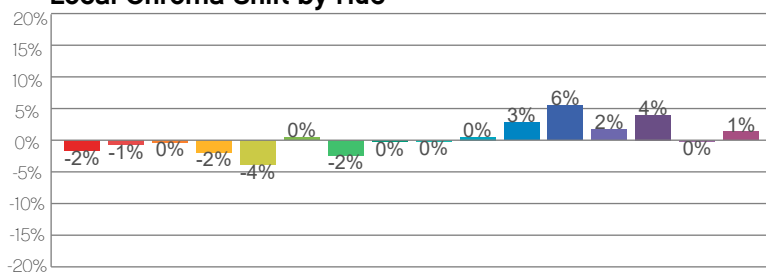
Color Distortion Graphic



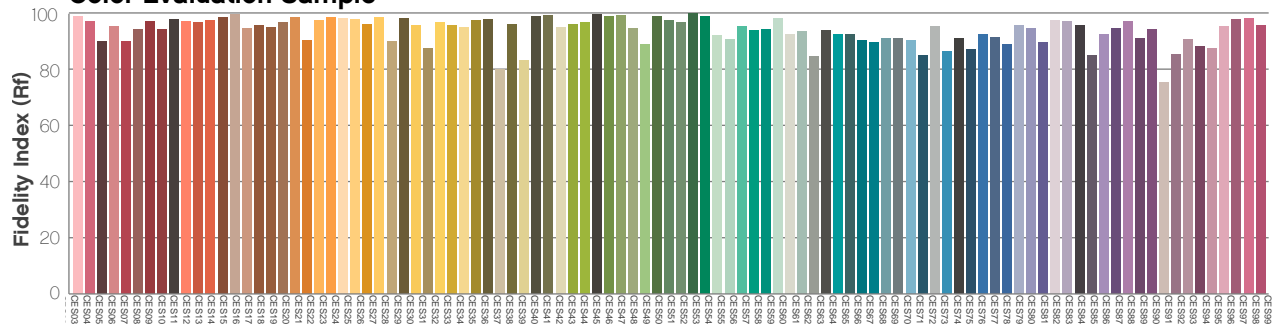
Rf by Hue



Local Chroma Shift by Hue



Color Evaluation Sample



# Photometric & Chromaticity Report

Ovation E-4WW IP: 15°-30° Zoom Lens - 15° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 15302 lm  
Fixture Peak: 390798 cd  
Fixture Efficacy: 35 lm/W  
Intensity @ 5m: 15632 lux  
Color Temperature: 3152 K  
CRI: 97.2      CRI R9 Value: 83.8  
CQS: 94.7  
TLCi: 97  
TM-30 Rf: 93.4  
TM-30 Rg: 99.4  
Beam Angle (50%): 12.3°  
Field Angle (10%): 17.1°  
Cutoff Angle (3%): 18°

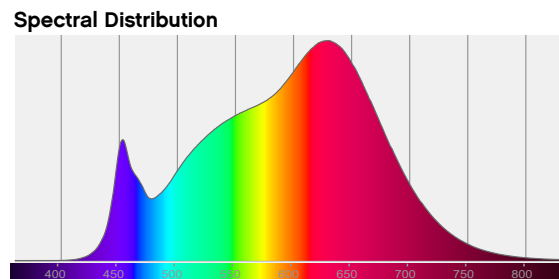
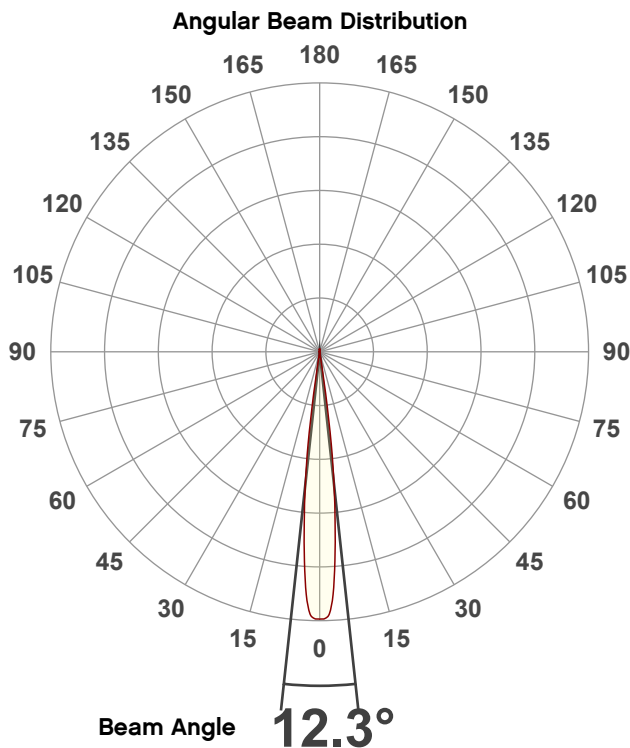


### Conditions

AC Supply: 117 V, 60 Hz  
Power: 434.75 W  
Current: 3.73 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 6/1/2023 to LM-63-2002 Standards.

## Overall Measurement



**Tested Color** (CIE 1931):

X: 0.427

Y: 0.402



**Light Quality**

**CRI: 97.2**

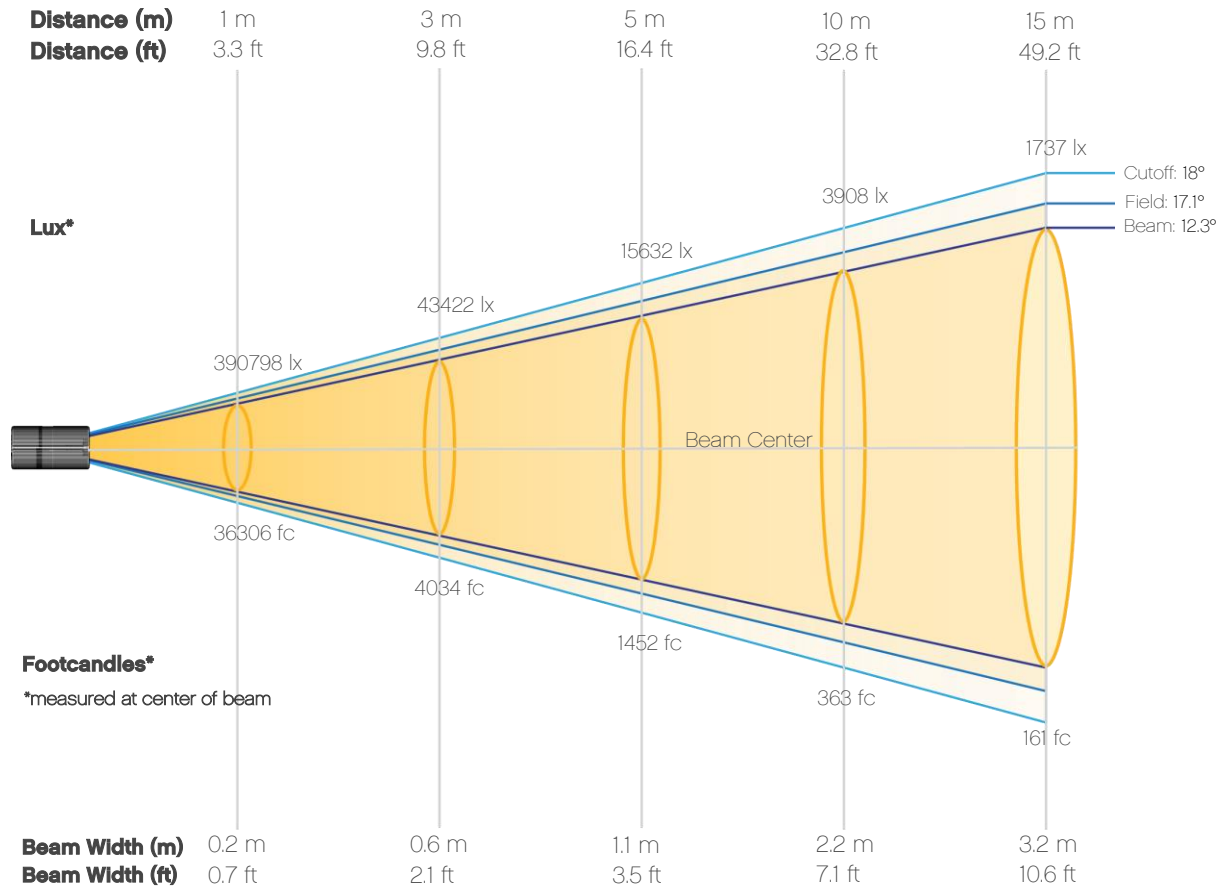
**Color Temperature**

**3152 K**

# Photometric & Chromaticity Report

Ovation E-4WW IP: 15°-30° Zoom Lens - 15° Lens - Full Power

## Beam Details

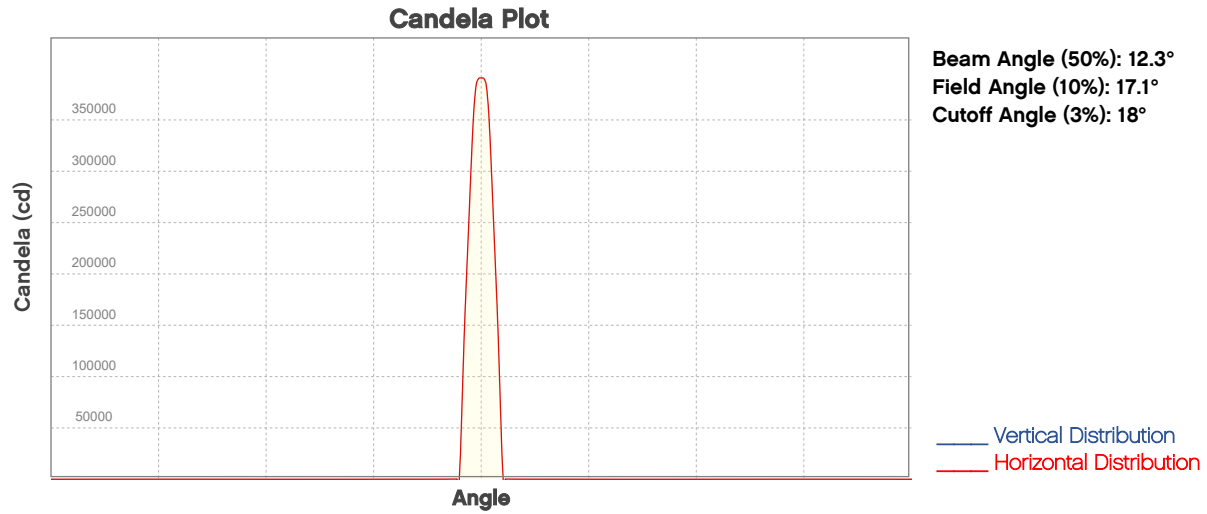


### Beam Intensities from 1-20m (3.3-65.6ft)

<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	390798	97699	43422	24425	15632	10855	7975	6106	4825	3908
<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	3230	2714	2312	1994	1737	1527	1352	1206	1083	977
<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	36306	9077	4034	2269	1452	1009	741	567	448	363
<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	300	252	215	185	161	142	126	112	101	91

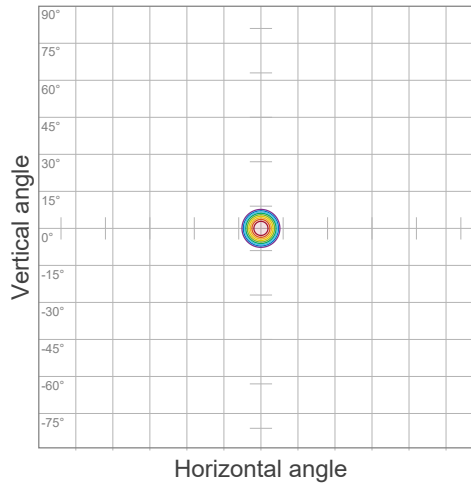
# Photometric & Chromaticity Report

Ovation E-4WW IP: 15°-30° Zoom Lens - 15° Lens - Full Power



## ISO Diagrams

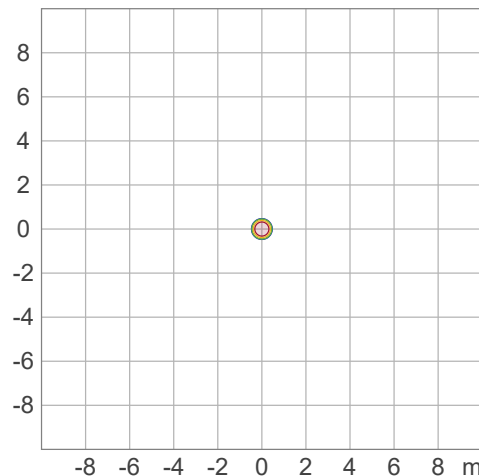
### ISO Candela Diagram



90 %	351718.2 cd
80 %	312638.4 cd
70 %	273558.6 cd
60 %	234478.8 cd
50 %	195399.0 cd
40 %	156319.2 cd
30 %	117239.4 cd
20 %	78159.6 cd
10 %	39079.8 cd

Peak intensity: 390798.0 cd  
Number of c-planes: 2

### ISO Lux Diagram



50.0 %	21711.0 lx
30.0 %	13026.6 lx
10.0 %	4342.2 lx
5.0 %	2171.1 lx
3.0 %	1302.7 lx

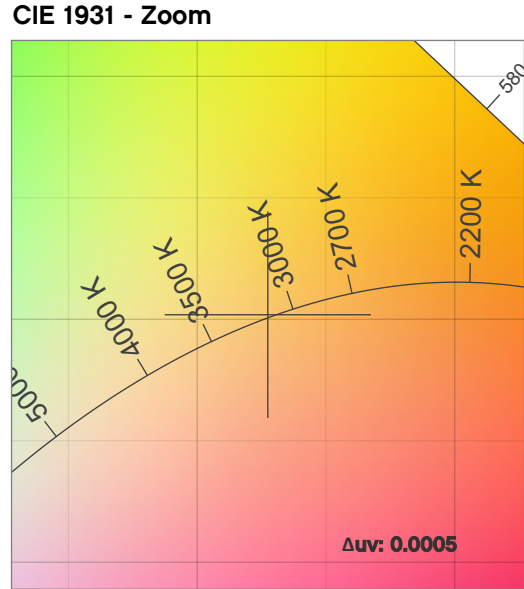
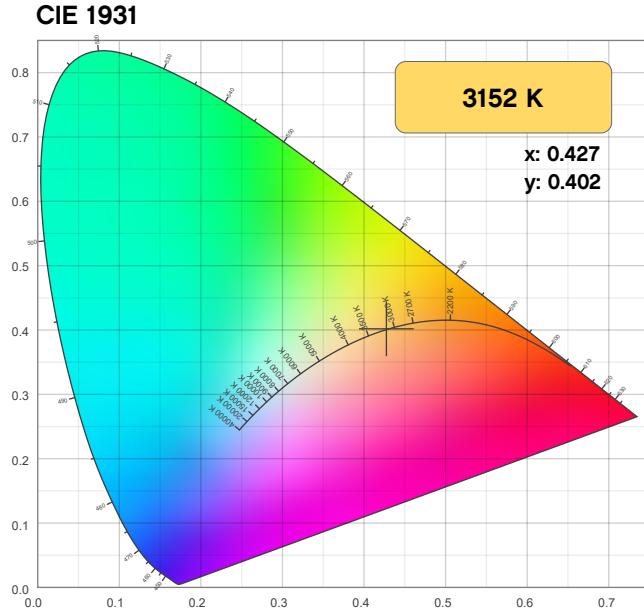
Peak illuminance: 43422.0 lx  
Mounting height: 3.0 m  
Number of c-planes: 2



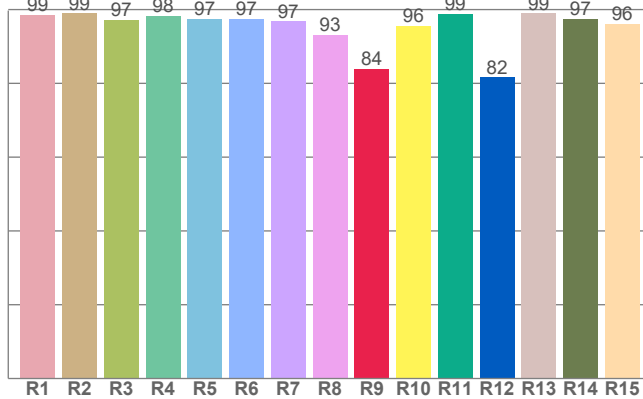
# Photometric & Chromaticity Report

Ovation E-4WW IP: 15°-30° Zoom Lens - 15° Lens - Full Power

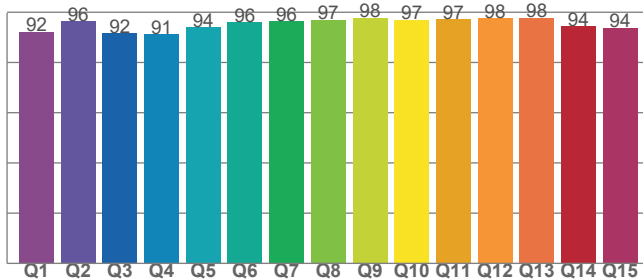
## Chromaticity



### CRI: 97.2 (R1-R8)



### CQS: 94.7



### Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3152 K	0.427	0.402

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0005	0.402	0.245

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.2	83.8	94.7

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
97	93.4	99.4

# Photometric & Chromaticity Report

Ovation E-4WW IP: 15°-30° Zoom Lens - 15° Lens - Full Power

## TM-30 Details

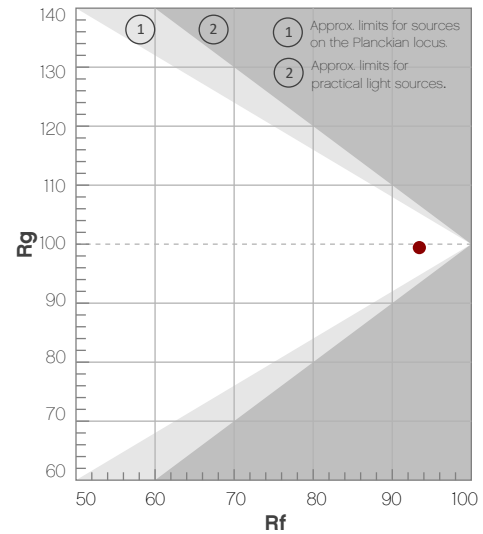
**Rf 93.4**

Fidelity Index  
(Rg)

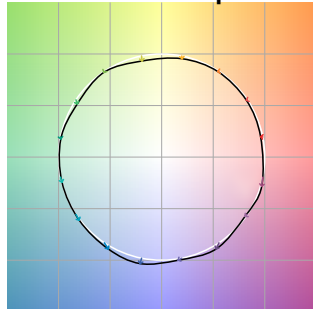
**Rg 99.4**

Gammut Index  
(Rg)

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	94	-2%	1%
2	97	-1%	0%
3	96	-1%	1%
4	95	-3%	-1%
5	93	-5%	0%
6	97	-1%	1%
7	93	-3%	3%
8	97	-1%	2%
9	93	0%	5%
10	89	0%	6%
11	90	3%	6%
12	92	5%	0%
13	94	1%	-4%
14	92	3%	-6%
15	91	-1%	-3%
16	89	1%	-9%



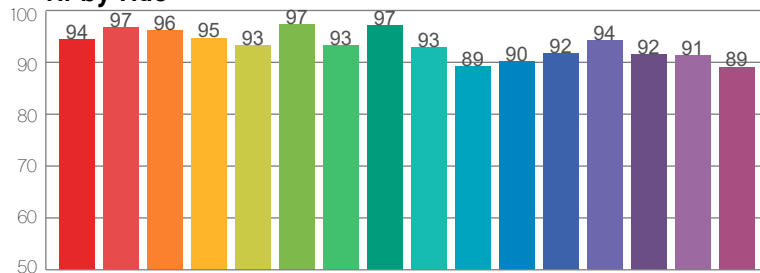
### Color Vector Graphic



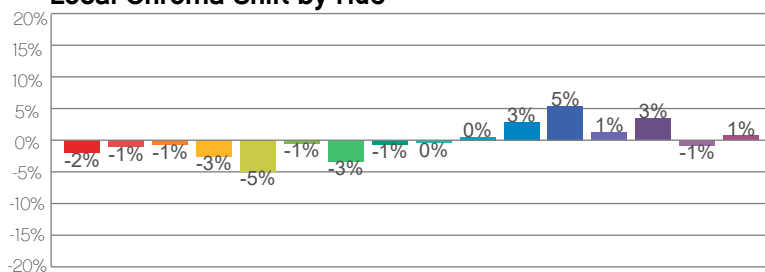
### Color Distortion Graphic



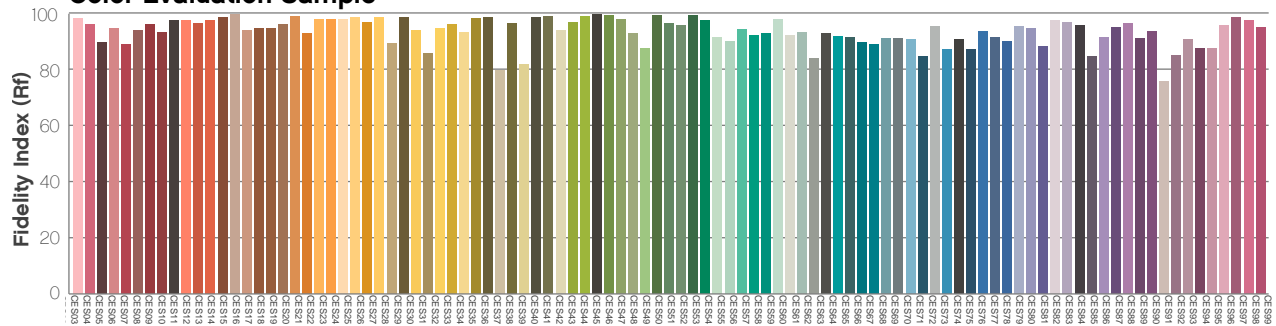
### Rf by Hue



### Local Chroma Shift by Hue



### Color Evaluation Sample



# Photometric & Chromaticity Report

Ovation E-4WW IP: 15°-30° Zoom Lens - 30° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 19171 lm  
Fixture Peak: 170714 cd  
Fixture Efficacy: 44 lm/W  
Intensity @ 5m: 6829 lux  
Color Temperature: 3230 K  
CRI: 97.4      CRI R9 Value: 85.2  
CQS: 94.8  
TLCI: 97  
TM-30 Rf: 93.5  
TM-30 Rg: 99.6  
Beam Angle (50%): 20.1°  
Field Angle (10%): 30.4°  
Cutoff Angle (3%): 31.4°

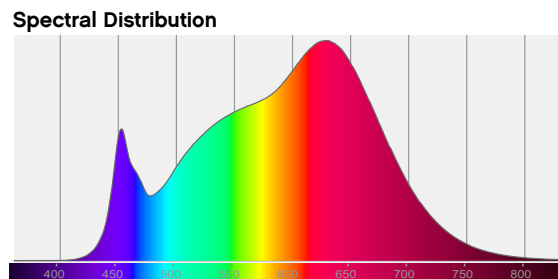
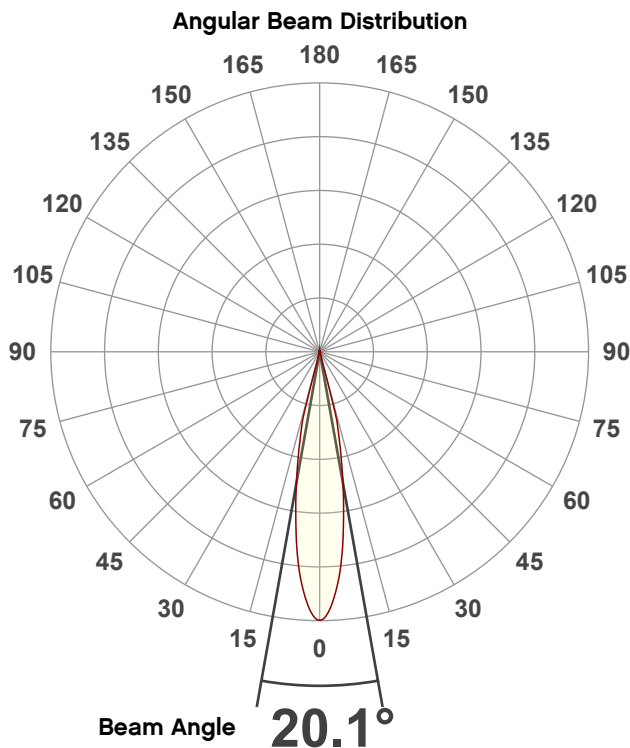


### Conditions

AC Supply: 116 V, 60 Hz  
Power: 438.26 W  
Current: 3.76 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 6/1/2023 to LM-63-2002 Standards.

## Overall Measurement



**Tested Color** (CIE 1931):  
X: 0.422  
Y: 0.399



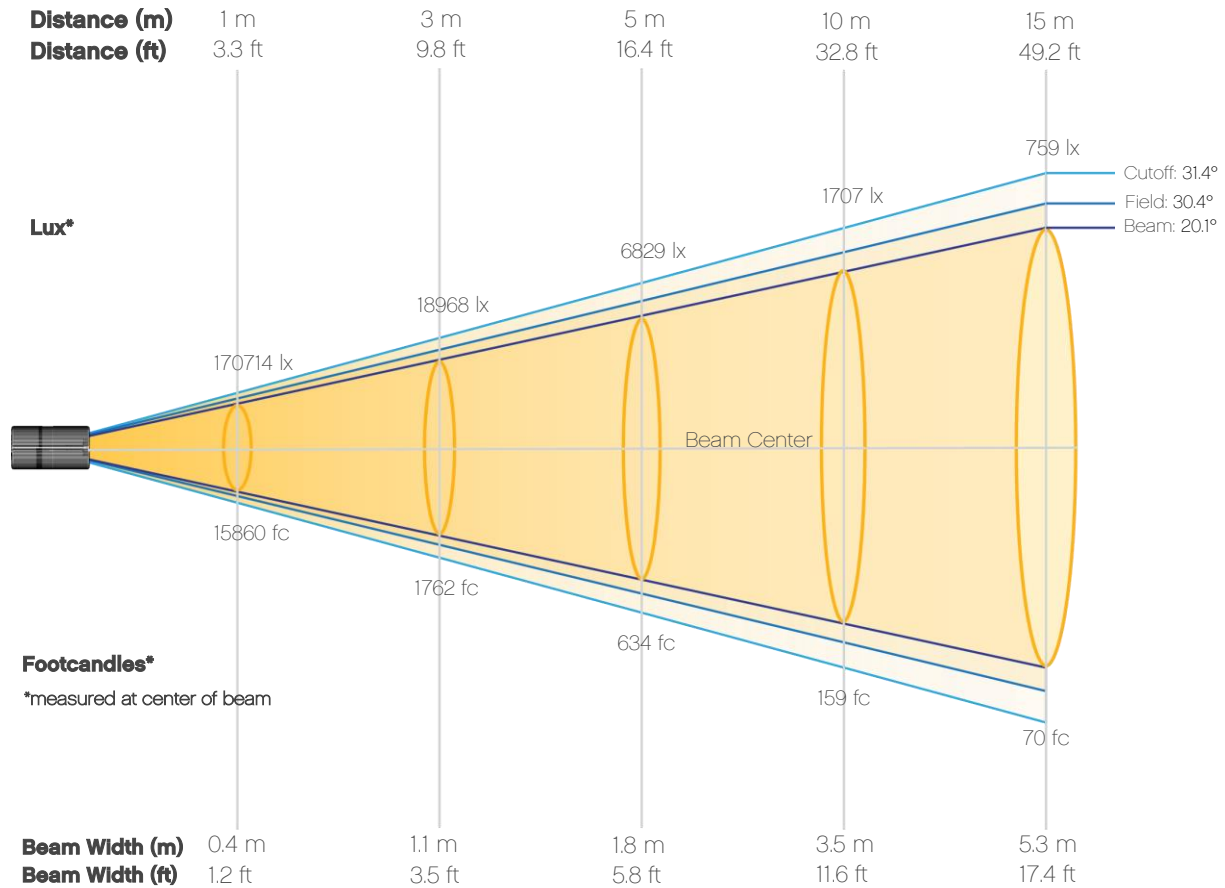
**Light Quality**  
CRI: 97.4

**Color Temperature**  
3230 K

# Photometric & Chromaticity Report

Ovation E-4WW IP: 15°-30° Zoom Lens - 30° Lens - Full Power

## Beam Details

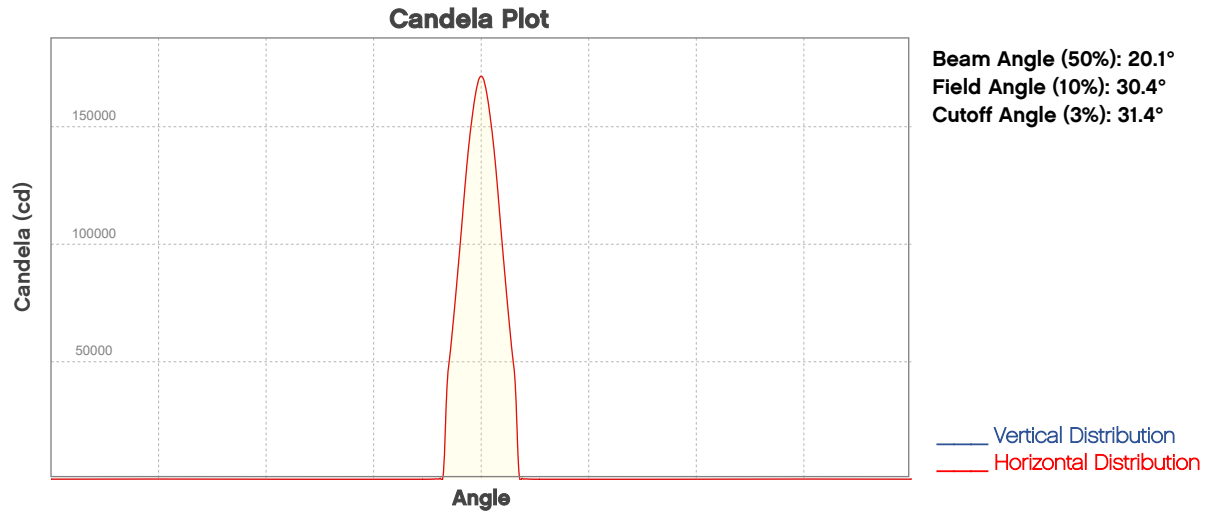


## Beam Intensities from 1-20m (3.3-65.6ft)

<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	170714	42679	18968	10670	6829	4742	3484	2667	2108	1707
<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	1411	1186	1010	871	759	667	591	527	473	427
<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	15860	3965	1762	991	634	441	324	248	196	159
<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	131	110	94	81	70	62	55	49	44	40

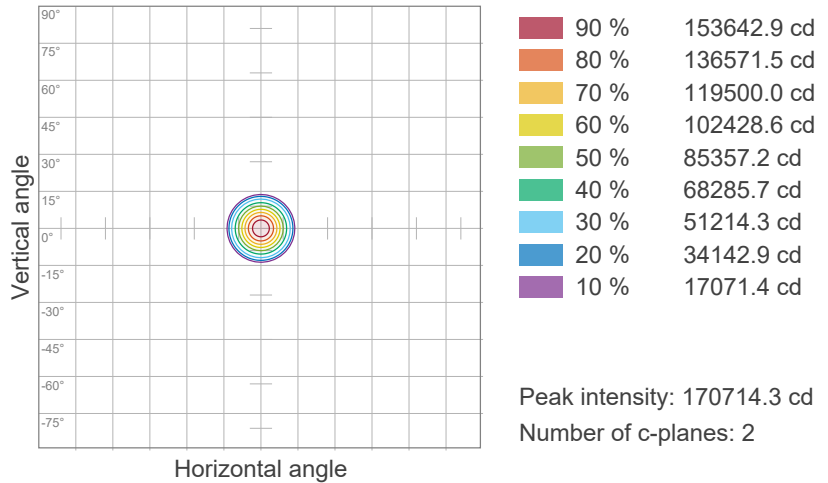
# Photometric & Chromaticity Report

Ovation E-4WW IP: 15°-30° Zoom Lens - 30° Lens - Full Power

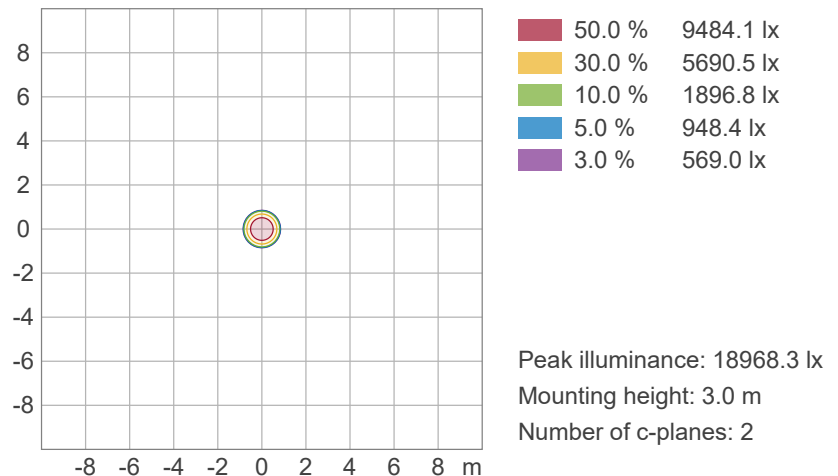


## ISO Diagrams

### ISO Candela Diagram



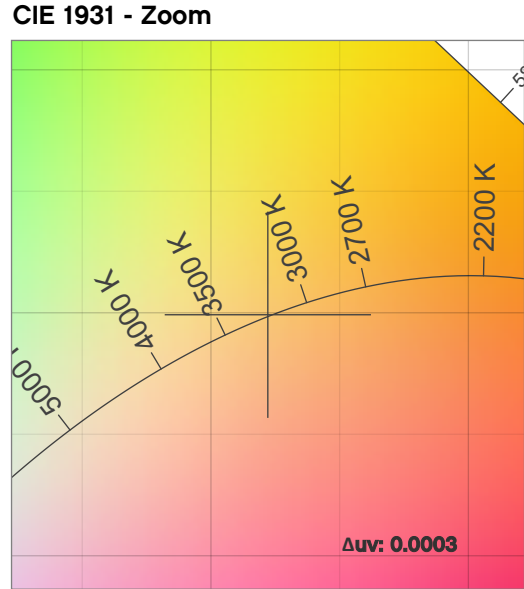
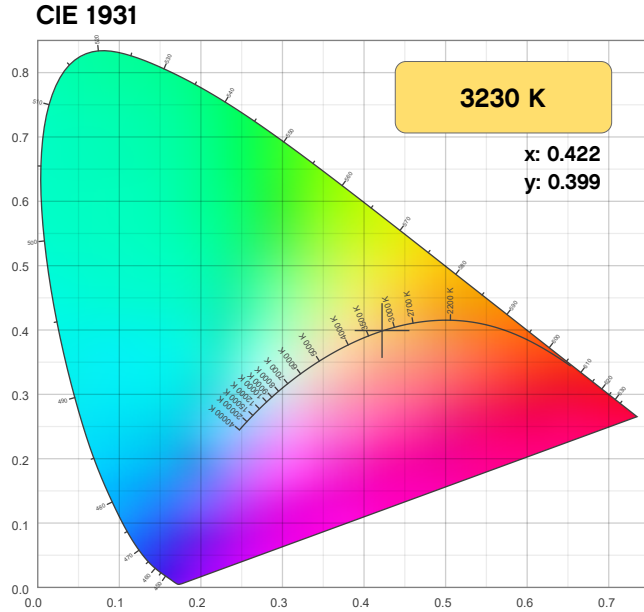
### ISO Lux Diagram



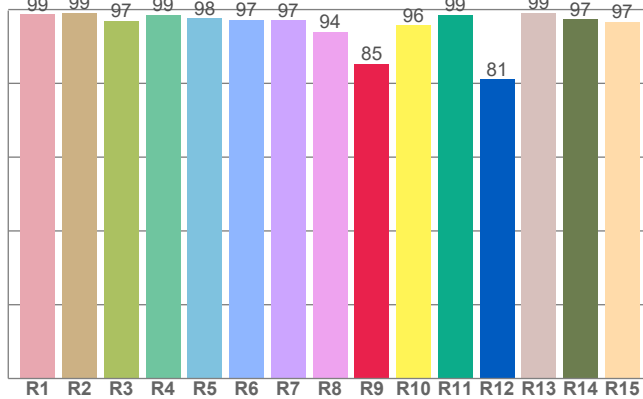
# Photometric & Chromaticity Report

Ovation E-4WW IP: 15°-30° Zoom Lens - 30° Lens - Full Power

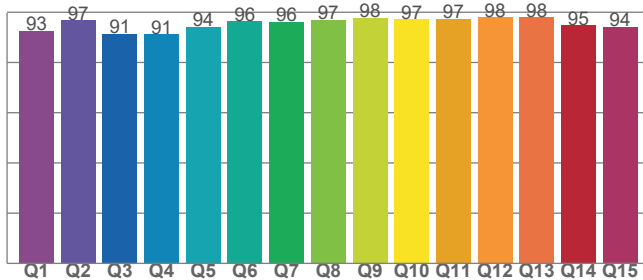
## Chromaticity



**CRI: 97.4 (R1-R8)**



**CQS: 94.8**



**Color Parameters**

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3230 K	0.422	0.399

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
0.0003	0.399	0.243

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.4	85.2	94.8

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
97	93.5	99.6

# Photometric & Chromaticity Report

Ovation E-4WW IP: 15°-30° Zoom Lens - 30° Lens - Full Power

## TM-30 Details

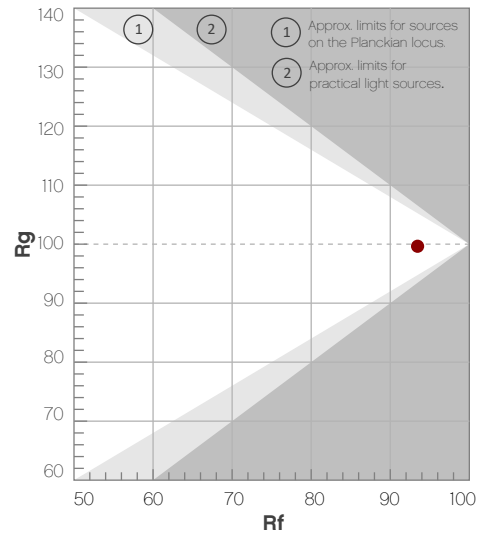
**Rf 93.5**

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

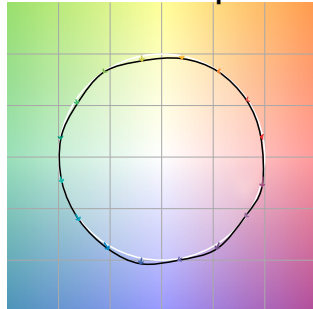
**Rg 99.6**

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

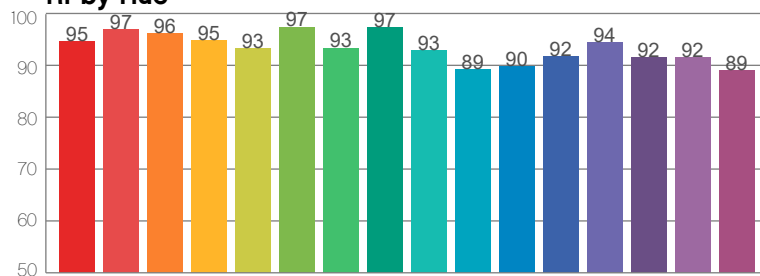
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	1%
2	97	-1%	0%
3	96	-1%	1%
4	95	-2%	-1%
5	93	-5%	0%
6	97	0%	1%
7	93	-3%	3%
8	97	-1%	2%
9	93	0%	5%
10	89	0%	6%
11	90	3%	7%
12	92	5%	0%
13	94	1%	-4%
14	92	4%	-5%
15	92	-1%	-3%
16	89	1%	-9%



Color Vector Graphic



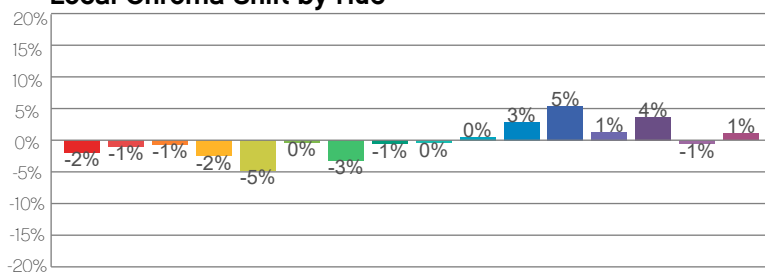
R<sub>f</sub> by Hue



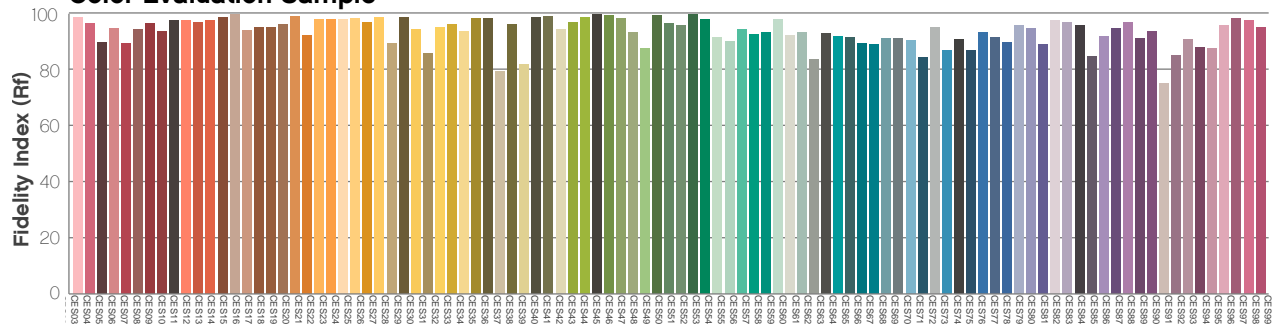
Color Distortion Graphic



Local Chroma Shift by Hue



Color Evaluation Sample



# Photometric & Chromaticity Report

Ovation E-4WW IP: 25°-50° Zoom Lens - 25° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 21049 lm  
Fixture Peak: 191707 cd  
Fixture Efficacy: 49 lm/W  
Intensity @ 5m: 7668 lux  
Color Temperature: 3158 K  
CRI: 97.7      CRI R9 Value: 86.8  
CQS: 94.6  
TLCI: 97  
TM-30 Rf: 93.7  
TM-30 Rg: 100.3  
Beam Angle (50%): 21.2°  
Field Angle (10%): 28.1°  
Cutoff Angle (3%): 30.9°

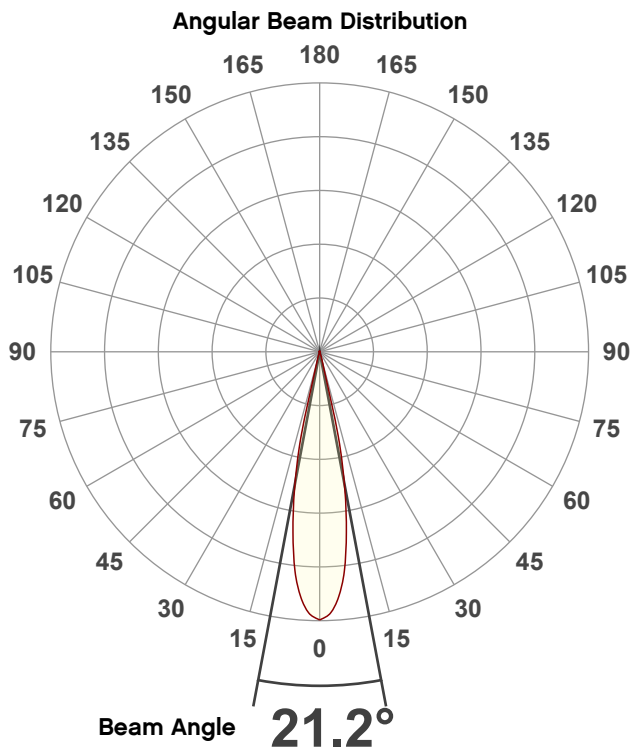


### Conditions

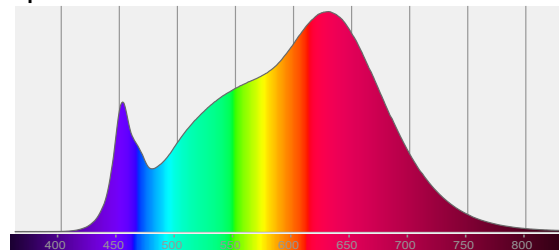
AC Supply: 116 V, 60 Hz  
Power: 432.74 W  
Current: 3.73 A  
Power Factor: 0.99

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 6/1/2023 to LM-63-2002 Standards.

## Overall Measurement



### Spectral Distribution



Tested Color (CIE 1931):

X: 0.425

Y: 0.397



Light Quality

CRI: 97.7

Color Temperature

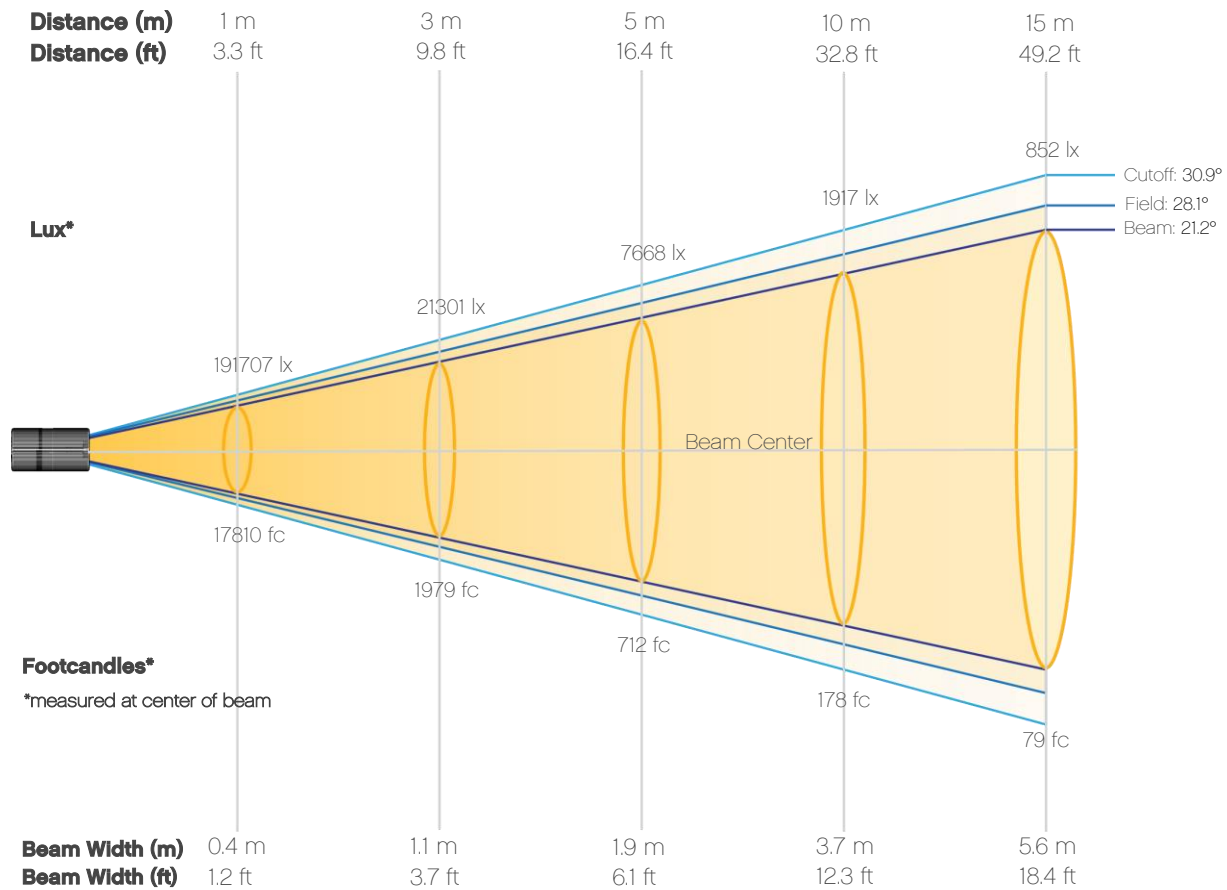
3158 K



# Photometric & Chromaticity Report

Ovation E-4WW IP: 25°-50° Zoom Lens - 25° Lens - Full Power

## Beam Details

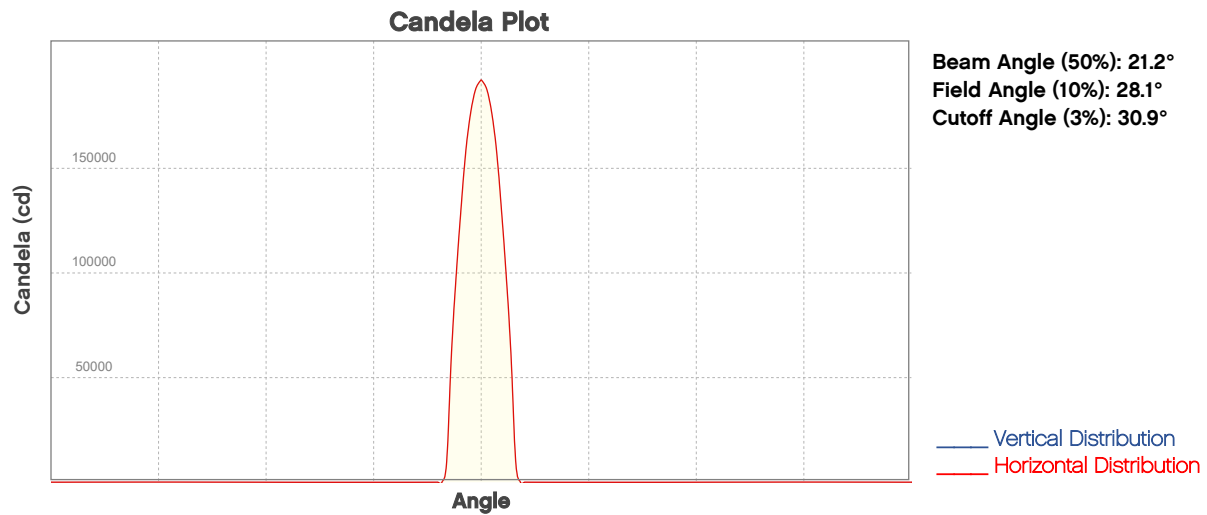


### Beam Intensities from 1-20m (3.3-65.6ft)

<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	191707	47927	21301	11982	7668	5325	3912	2995	2367	1917
<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	1584	1331	1134	978	852	749	663	592	531	479
<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	17810	4453	1979	1113	712	495	363	278	220	178
<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	147	124	105	91	79	70	62	55	49	45

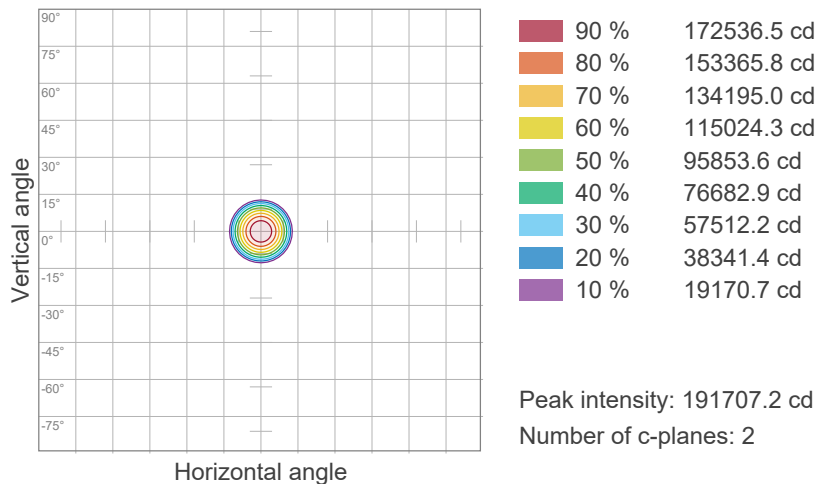
# Photometric & Chromaticity Report

Ovation E-4WW IP: 25°-50° Zoom Lens - 25° Lens - Full Power

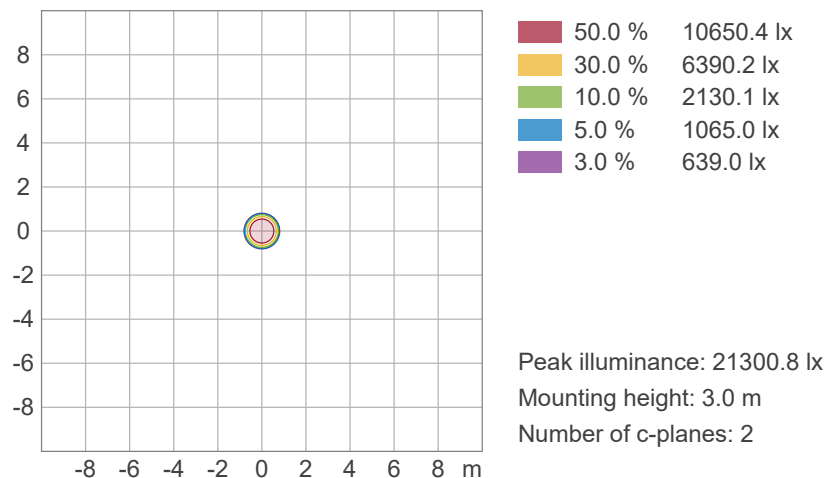


## ISO Diagrams

### ISO Candela Diagram



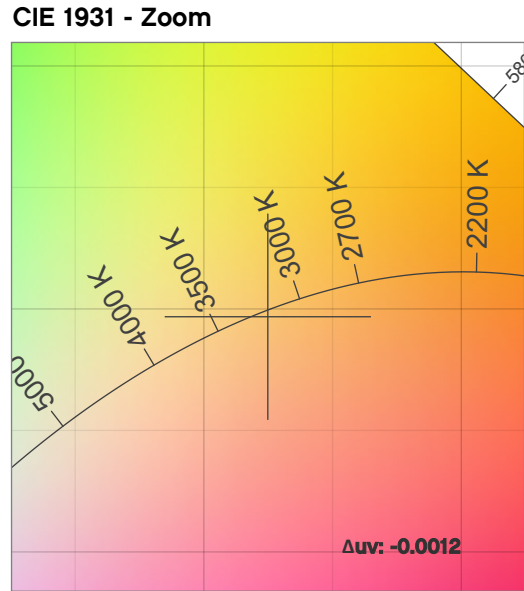
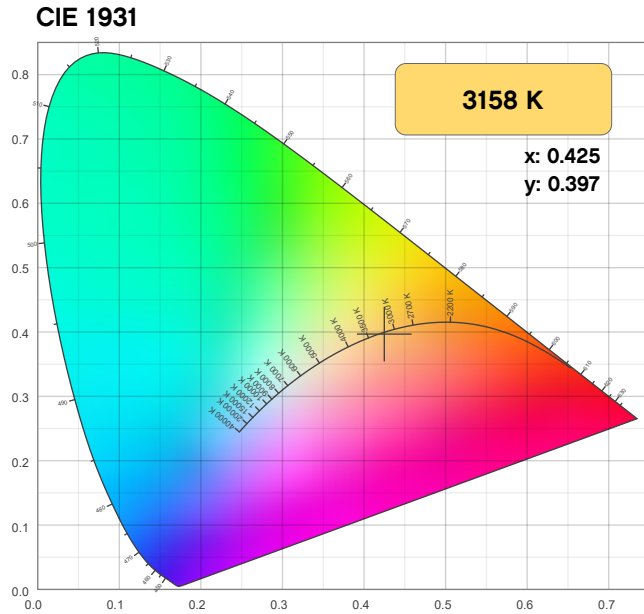
### ISO Lux Diagram



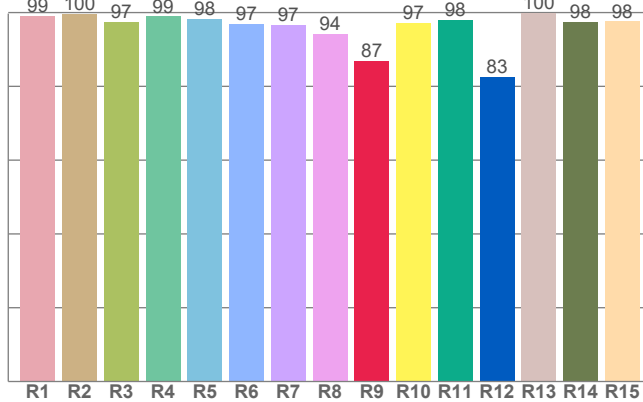
# Photometric & Chromaticity Report

Ovation E-4WW IP: 25°-50° Zoom Lens - 25° Lens - Full Power

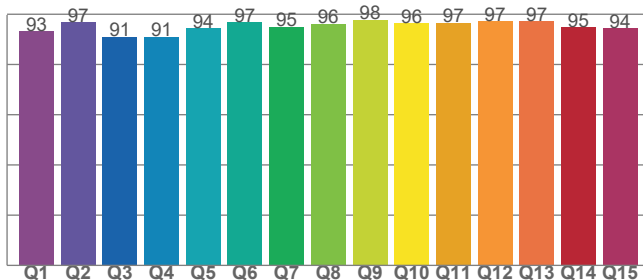
## Chromaticity



**CRI: 97.7 (R1-R8)**



**CQS: 94.6**



**Color Parameters**

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3158 K	0.425	0.397

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
$\Delta uv$	y	u
-0.0012	0.397	0.246

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.7	86.8	94.6

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
97	93.7	100.3

# Photometric & Chromaticity Report

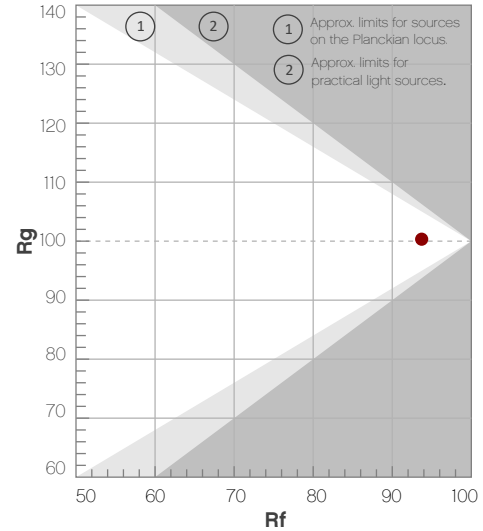
Ovation E-4WW IP: 25°-50° Zoom Lens - 25° Lens - Full Power

## TM-30 Details

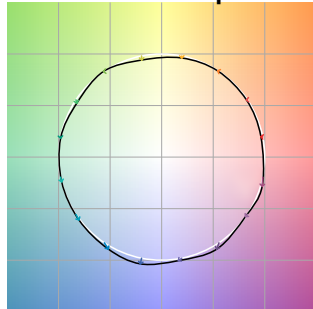
**Rf 93.7**  
Fidelity Index  
(Rg)

**Rg 100.3**  
Gammut Index  
(Rg)

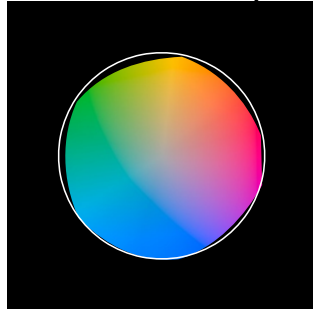
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	1%
2	97	-1%	0%
3	96	0%	1%
4	95	-2%	0%
5	94	-4%	1%
6	97	0%	1%
7	94	-3%	2%
8	98	0%	1%
9	94	0%	5%
10	90	1%	6%
11	90	3%	6%
12	92	6%	0%
13	94	2%	-4%
14	92	4%	-5%
15	92	0%	-3%
16	89	1%	-9%



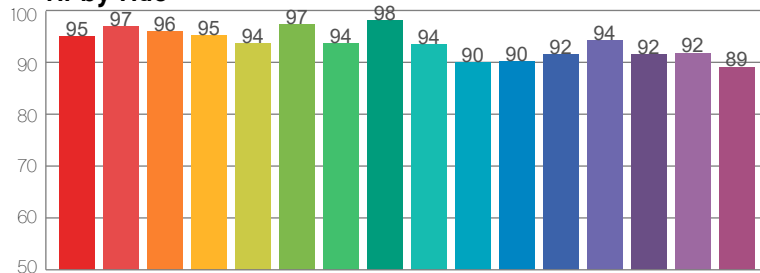
Color Vector Graphic



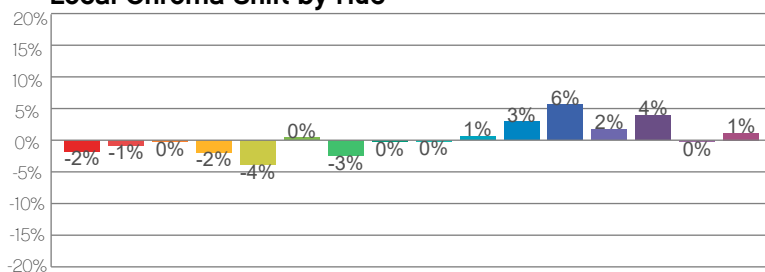
Color Distortion Graphic



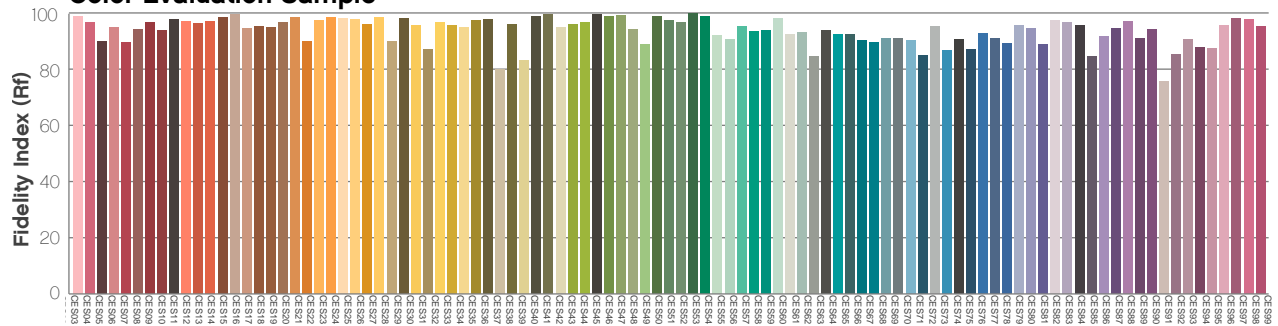
R<sub>f</sub> by Hue



Local Chroma Shift by Hue



Color Evaluation Sample



# Photometric & Chromaticity Report

Ovation E-4WW IP: 25°-50° Zoom Lens - 50° Lens - Full Power

## Report Summary

### Measurements

Fixture Output: 20936 lm  
Fixture Peak: 93324 cd  
Fixture Efficacy: 49 lm/W  
Intensity @ 5m: 3733 lux  
Color Temperature: 3155 K  
CRI: 97.7      CRI R9 Value: 87.4  
CQS: 94.7  
TLCI: 97  
TM-30 Rf: 93.8  
TM-30 Rg: 100.4  
Beam Angle (50%): 29.2°  
Field Angle (10%): 41.4°  
Cutoff Angle (3%): 44.5°

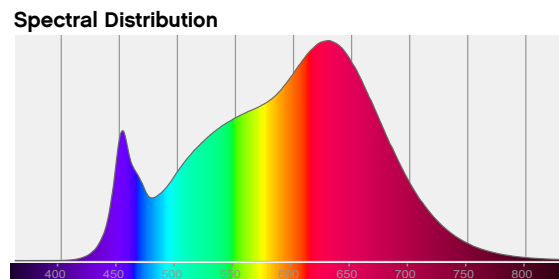
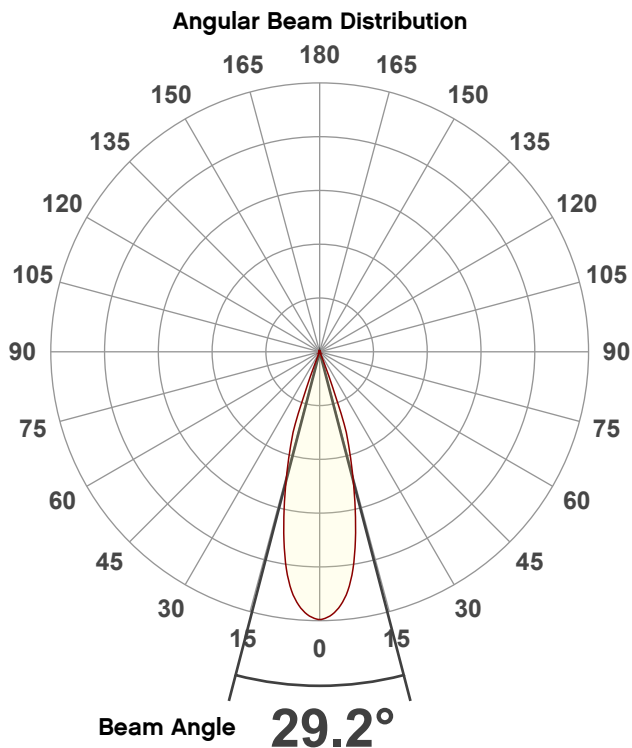


### Conditions

AC Supply: 116 V, 60 Hz  
Power: 433.98 W  
Current: 3.74 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 6/1/2023 to LM-63-2002 Standards.

## Overall Measurement



**Tested Color** (CIE 1931):

X: 0.425

Y: 0.396



**Light Quality**

**CRI: 97.7**

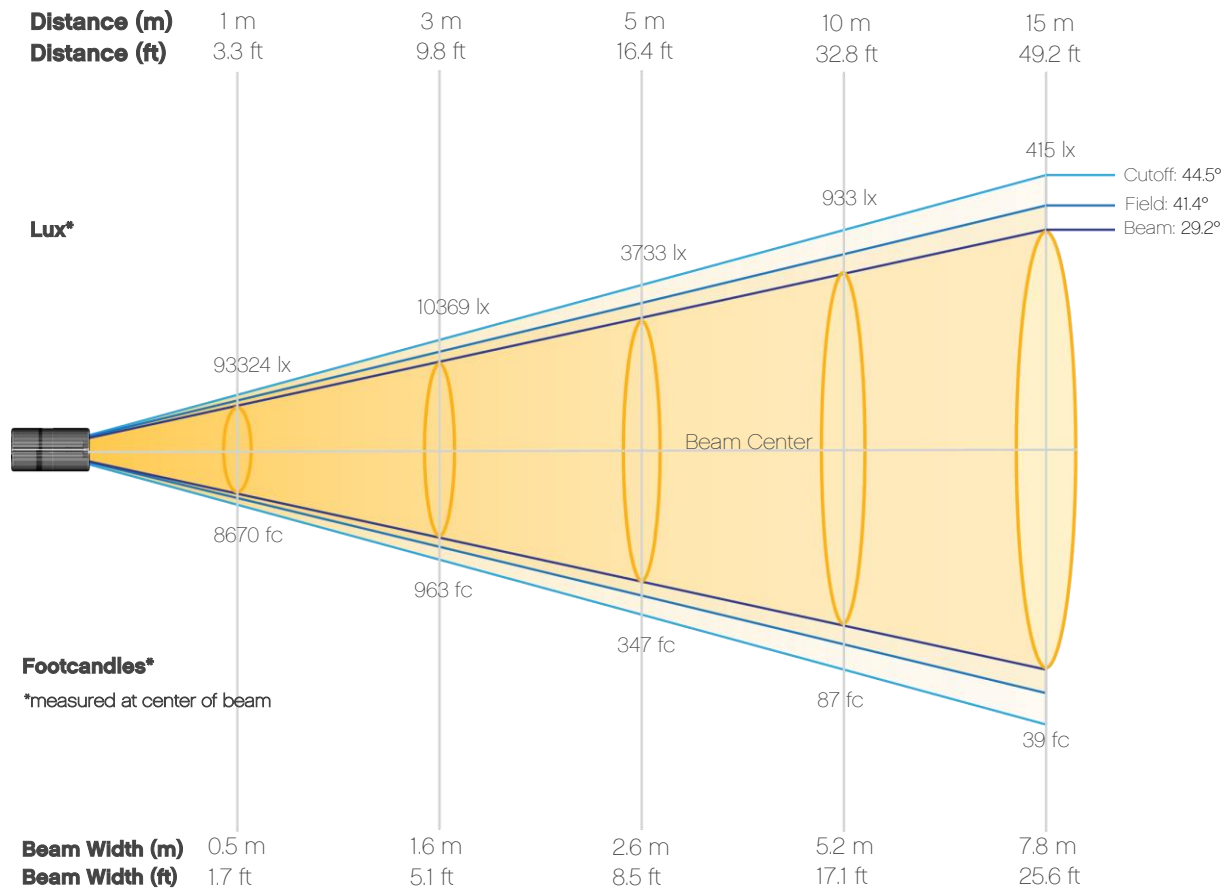
**Color Temperature**

**3155 K**

# Photometric & Chromaticity Report

Ovation E-4WW IP: 25°-50° Zoom Lens - 50° Lens - Full Power

## Beam Details

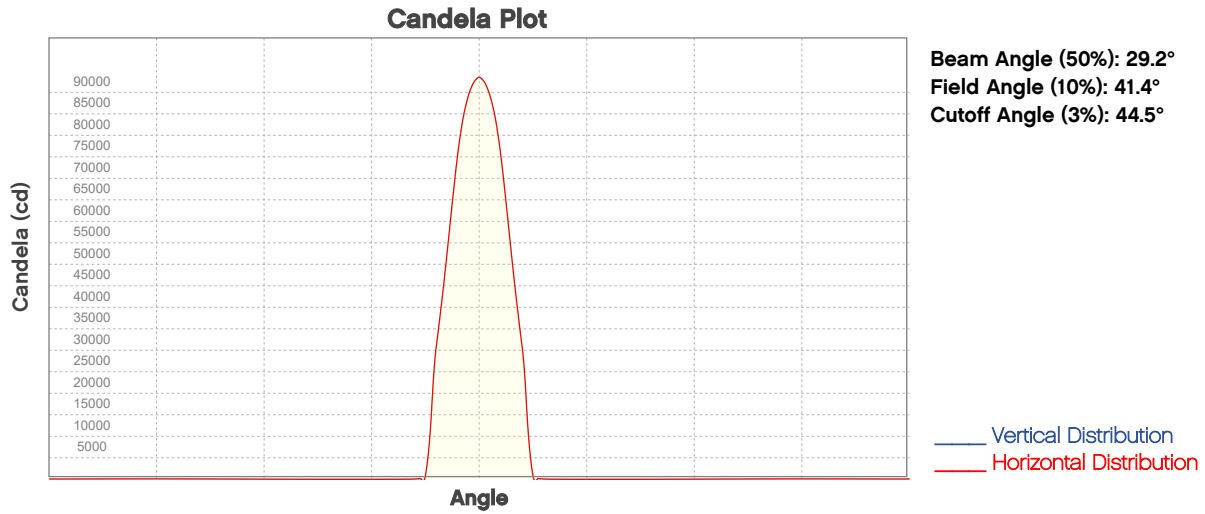


### Beam Intensities from 1-20m (3.3-65.6ft)

<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	93324	23331	10369	5833	3733	2592	1905	1458	1152	933
<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	771	648	552	476	415	365	323	288	259	233
<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	8670	2168	963	542	347	241	177	135	107	87
<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	72	60	51	44	39	34	30	27	24	22

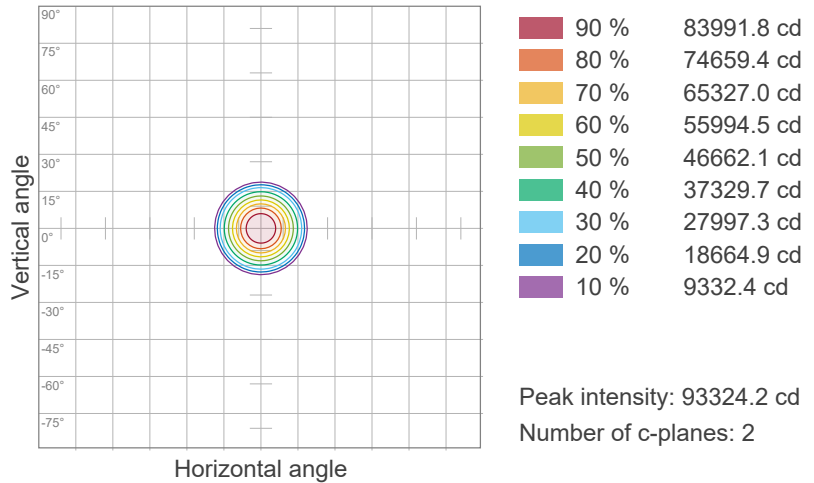
# Photometric & Chromaticity Report

Ovation E-4WW IP: 25°-50° Zoom Lens - 50° Lens - Full Power

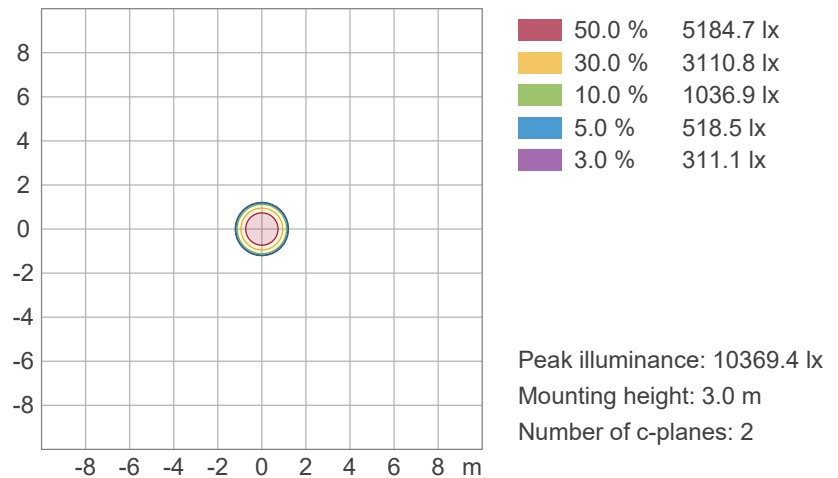


## ISO Diagrams

### ISO Candela Diagram



### ISO Lux Diagram

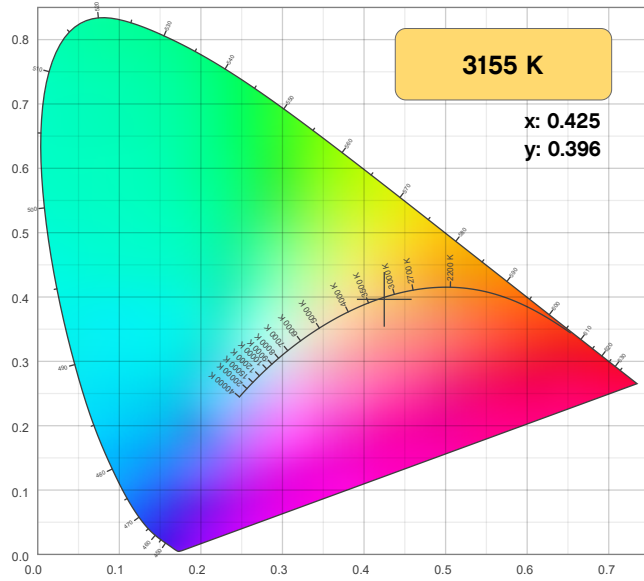


# Photometric & Chromaticity Report

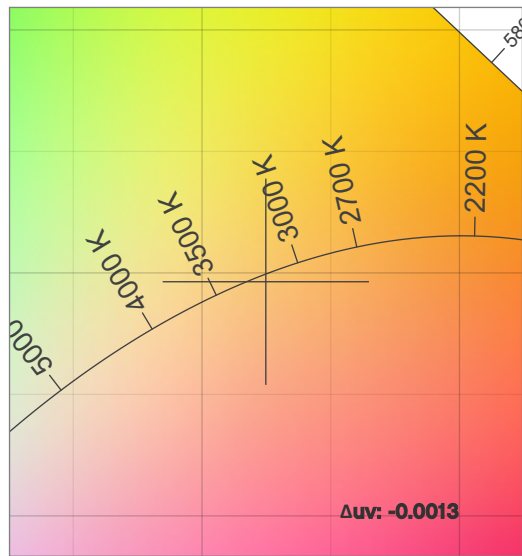
Ovation E-4WW IP: 25°-50° Zoom Lens - 50° Lens - Full Power

## Chromaticity

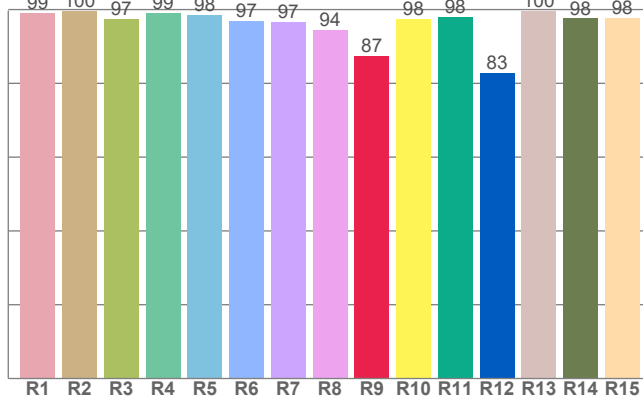
CIE 1931



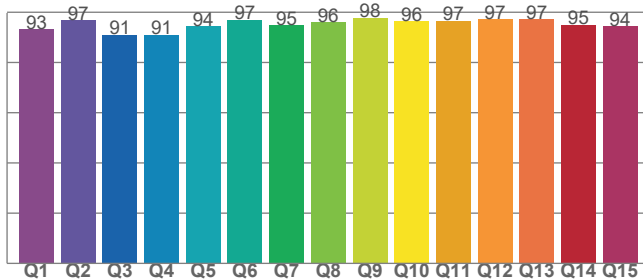
CIE 1931 - Zoom



CRI: 97.7 (R1-R8)



CQS: 94.7



### Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3155 K	0.425	0.396

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
Δuv	y	u
-0.0013	0.396	0.246

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.7	87.4	94.7

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM30 - Rf	TM30 Rg
97	93.8	100.4



# Photometric & Chromaticity Report

Ovation E-4WW IP: 25°-50° Zoom Lens - 50° Lens - Full Power

## TM-30 Details

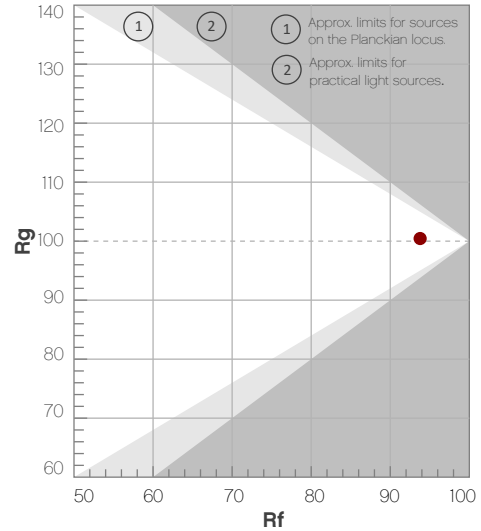
**Rf 93.8**

Fidelity Index  
(Rg)

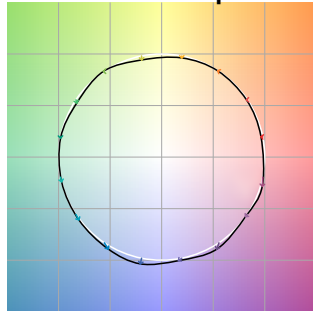
**Rg 100.4**

Gammut Index  
(Rg)

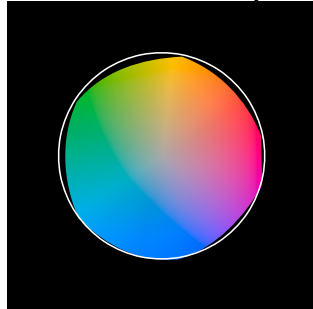
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	95	-2%	1%
2	97	-1%	0%
3	96	0%	1%
4	95	-2%	0%
5	94	-4%	1%
6	97	0%	1%
7	94	-2%	2%
8	98	0%	1%
9	94	0%	4%
10	90	1%	6%
11	90	3%	6%
12	92	6%	0%
13	94	2%	-4%
14	92	4%	-5%
15	92	0%	-3%
16	89	1%	-9%



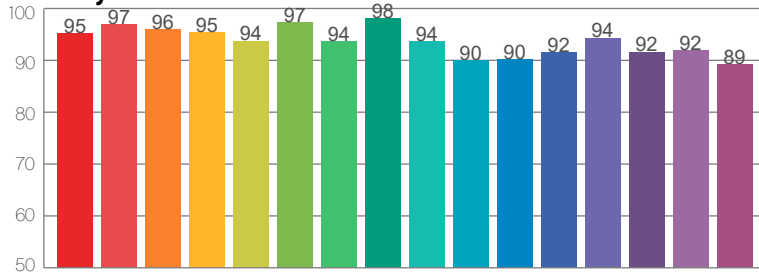
Color Vector Graphic



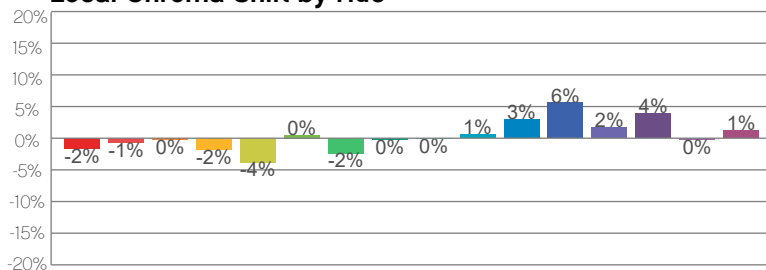
Color Distortion Graphic



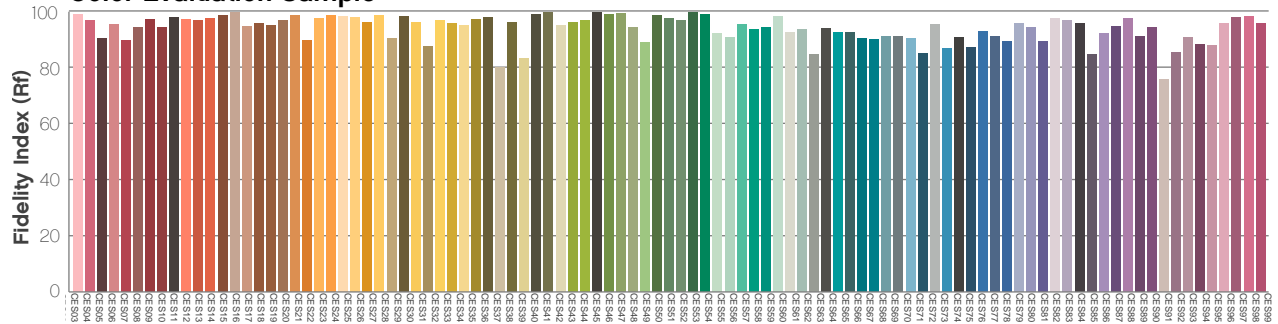
Rf by Hue



Local Chroma Shift by Hue



Color Evaluation Sample



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