

PHOTOMETRICS REPORT  
**OVATION**  
P-56WW



# Table of Contents

<b>1. Testing Process</b> .....	<b>1</b>
<b>2. Photometric Reports</b> .....	<b>2</b>
<b>Wide Lens, Full Power</b> .....	<b>2</b>
Report Summary .....	2
Overall Measurement .....	2
Beam Details .....	3
Polar Diagrams .....	4
<b>Medium Lens, Full Power</b> .....	<b>5</b>
Report Summary .....	5
Overall Measurement .....	5
Beam Details .....	6
Polar Diagrams .....	7
<b>Narrow Lens, Full Power</b> .....	<b>8</b>
Report Summary .....	8
Overall Measurement .....	8
Beam Details .....	9
Polar Diagrams .....	10
<b>3. Chromaticity Report</b> .....	<b>11</b>
Report Summary .....	11
Chromaticity .....	12
TM-30-18 Details .....	13
<b>4. Contact Us</b> .....	<b>14</b>

## 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.

# Photometric Report

Ovation P-56WW: Wide Lens, Full Power

## Report Summary

### Output

Total Lumens: 11756 lm  
Peak Intensity: 9092 cd  
Illuminance @ 5m: 363 lux  
Fixture Efficacy: 57 lm/W

### Optical

Horizontal Beam Angle (50%): 70.9°  
Vertical Beam Angle (50%): 70.8°  
Horizontal Field Angle (10%): 106°  
Vertical Field Angle (10%): 104°  
Horizontal Cutoff Angle (3%): 123.4°  
Vertical Cutoff Angle (3%): 120.7°

### Conditions

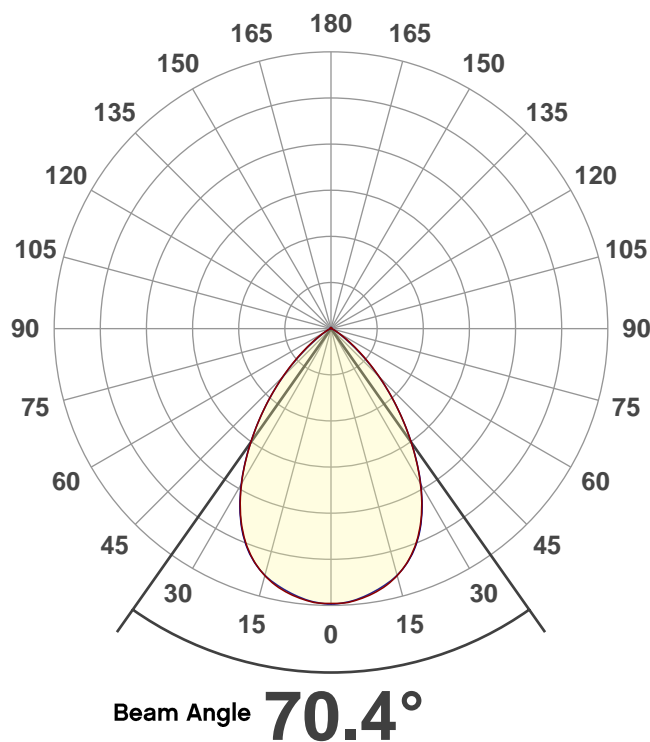
AC Supply: 119 V, 0 Hz  
Power: 210.07 W  
Current: 1.76 A  
Power Factor: 0.99



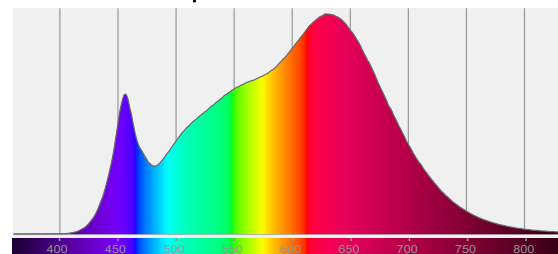
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 7/5/2019 to LM-63-2002 Standards.

## Overall Measurement

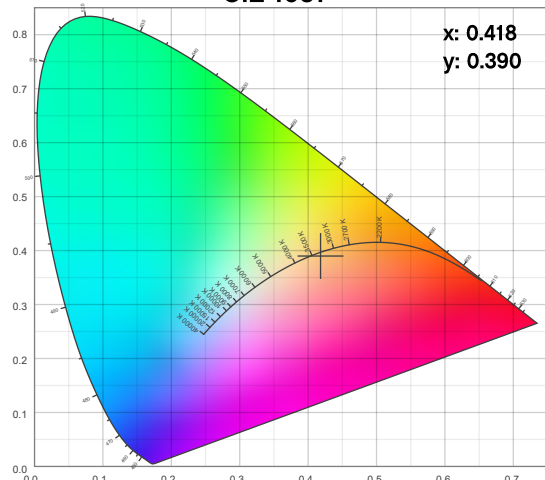
Angular Beam Distribution



Spectral Distribution



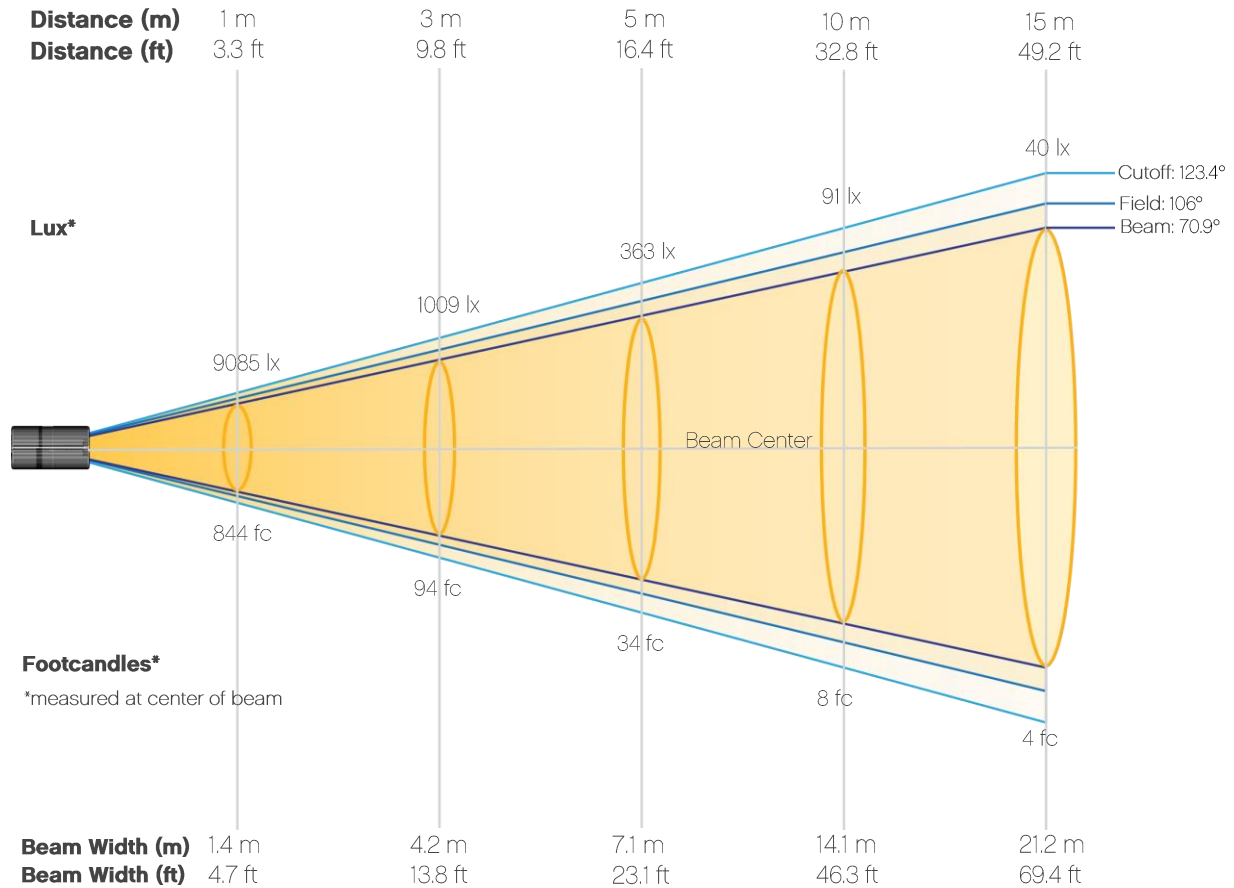
CIE 1931



# Photometric Report

Ovation P-56WW: Wide Lens, Full Power

## Beam Details



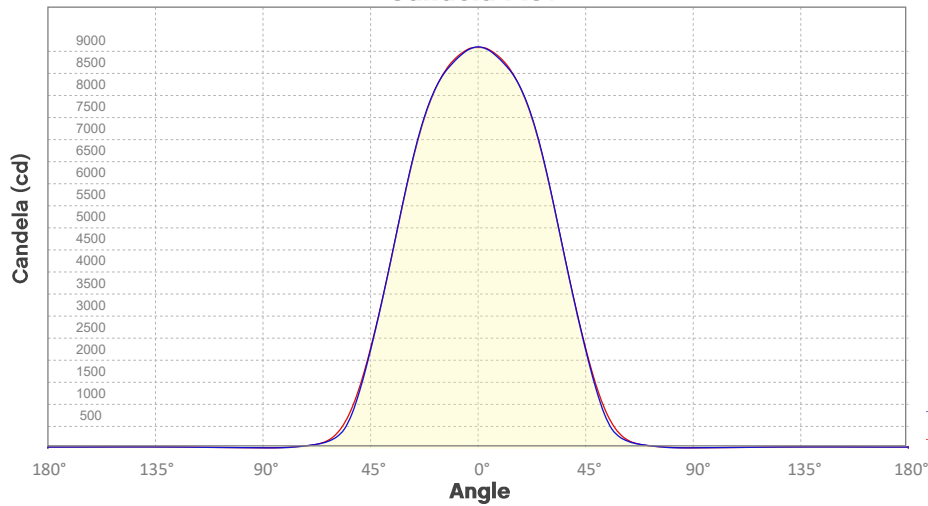
### Beam Luminances from 1-20m (3.3-65.6ft)

<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	9085	2271	1009	568	363	252	185	142	112	91
<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	75	63	54	46	40	35	31	28	25	23
<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	844	211	94	53	34	23	17	13	10	8
<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	7	6	5	4	4	3	3	3	2	2

# Photometric Report

Ovation P-56WW: Wide Lens, Full Power

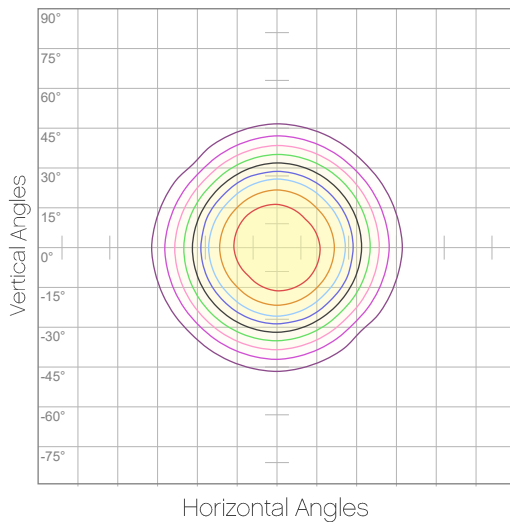
## Candela Plot



Beam Angle (50%): 70.4°  
Field Angle (10%): 103.1°  
Cutoff Angle (3%): 119.7°

— Horizontal Distribution  
— Vertical Distribution

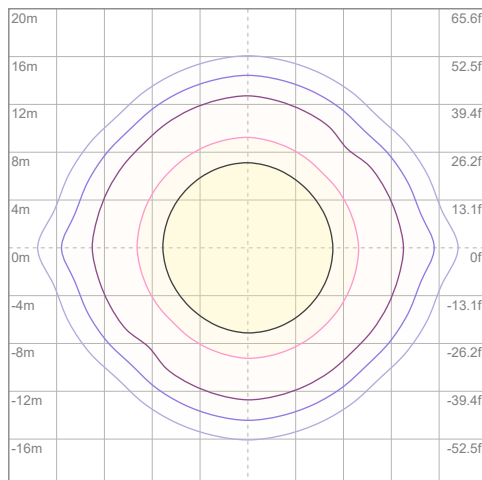
## Polar Diagrams



### iso-candela Diagram

10%	908 cd
20%	1817 cd
30%	2725 cd
40%	3634 cd
50%	4542 cd
60%	5451 cd
70%	6359 cd
80%	7268 cd
90%	8176 cd

Conditions:  
Number of c-planes: 8  
Candela at center: 9085 cd



### iso-illuminance Diagram

3%	2.73 lx
5%	4.54 lx
10%	9.08 lx
30%	27.3 lx
50%	45.4 lx

Conditions:  
Number of c-planes: 8  
Lux at center: 90.8 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Ovation P-56WW: Medium Lens, Full Power

## Report Summary

### Output

Total Lumens: 11847 lm  
Peak Intensity: 56721 cd  
Illuminance @ 5m: 2264 lux  
Fixture Efficacy: 57 lm/W

### Optical

Horizontal Beam Angle (50%): 23.9°  
Vertical Beam Angle (50%): 23.7°  
Horizontal Field Angle (10%): 40°  
Vertical Field Angle (10%): 39.7°  
Horizontal Cutoff Angle (3%): 55.2°  
Vertical Cutoff Angle (3%): 54.1°

### Conditions

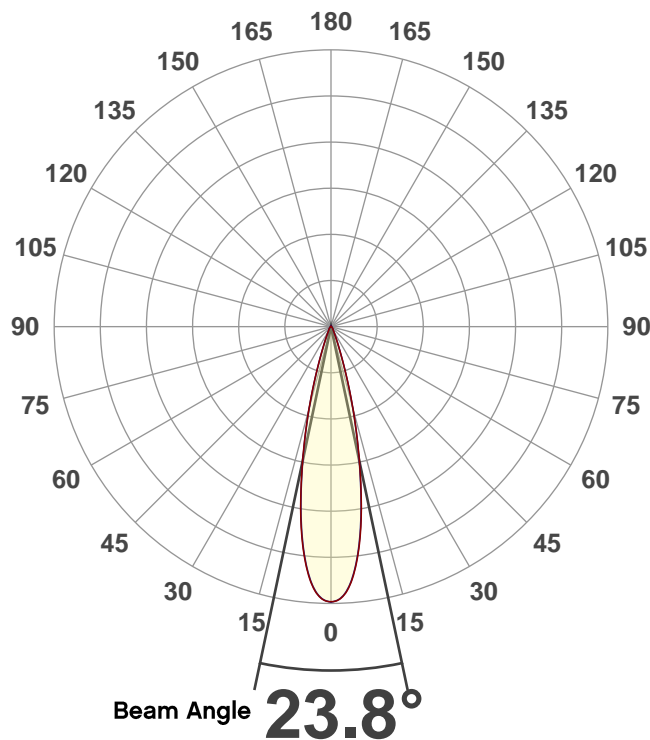
AC Supply: 120 V, 0 Hz  
Power: 210.06 W  
Current: 1.73 A  
Power Factor: 0.99



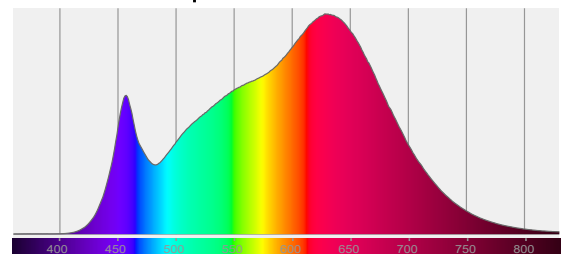
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 7/5/2019 to LM-63-2002 Standards.

## Overall Measurement

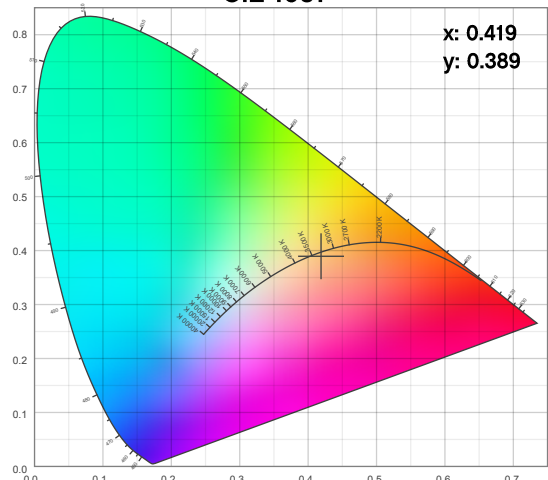
Angular Beam Distribution



Spectral Distribution



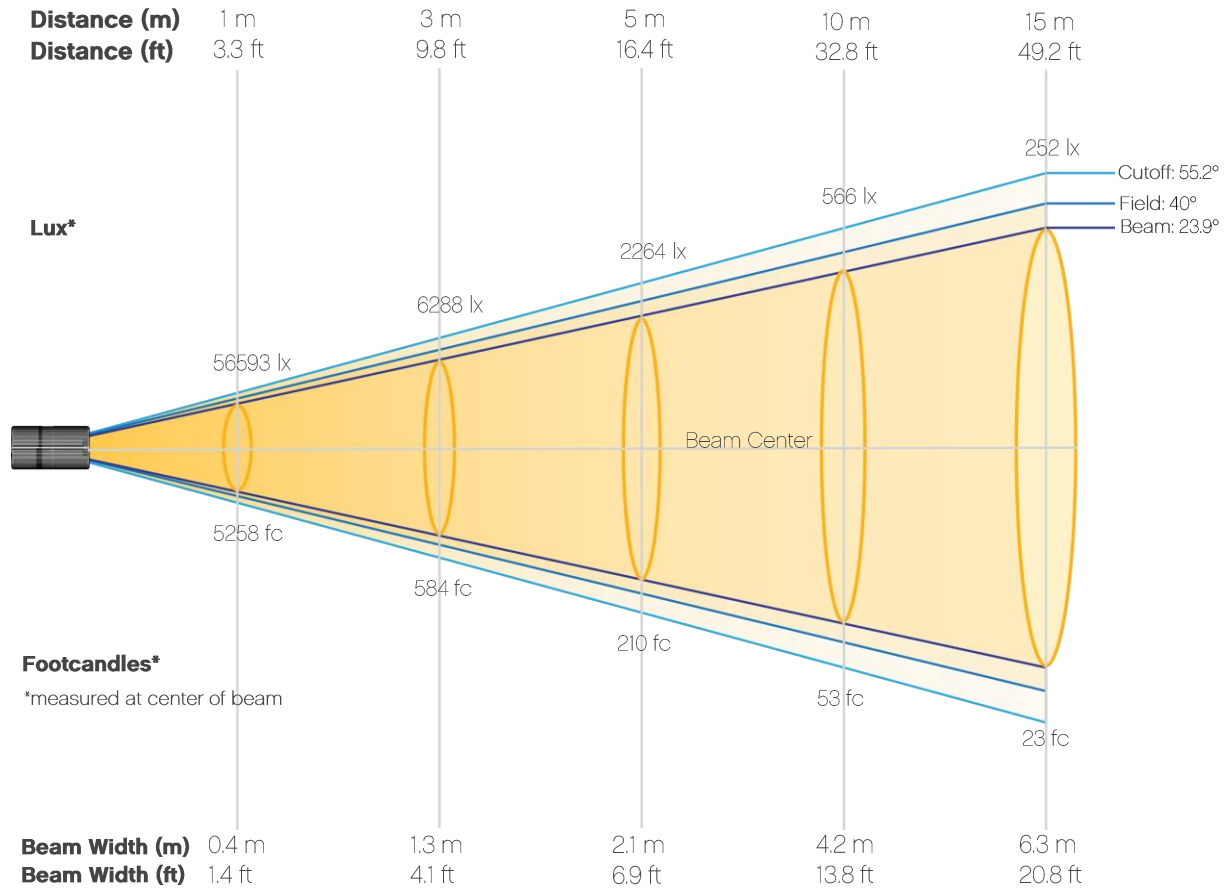
CIE 1931



# Photometric Report

Ovation P-56WW: Medium Lens, Full Power

## Beam Details



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

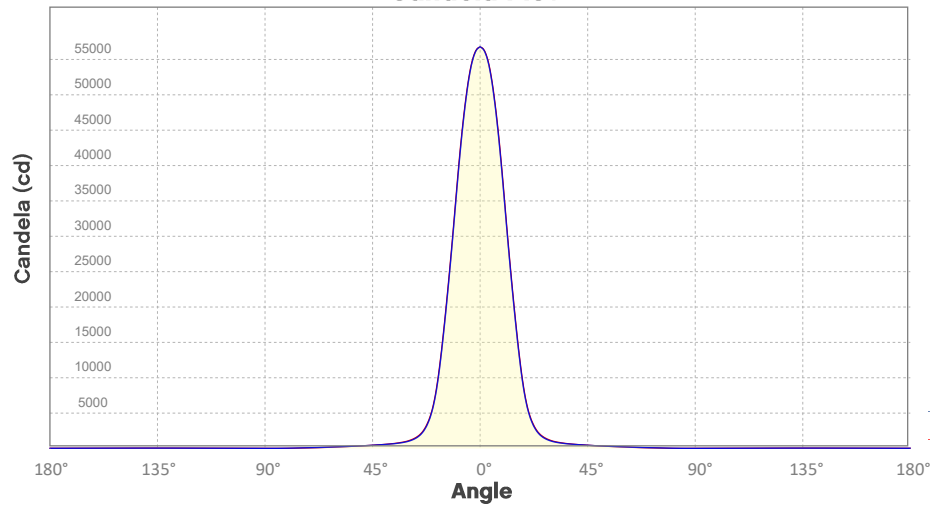
<b>Distance</b>	<b>1m</b>	<b>2m</b>	<b>3m</b>	<b>4m</b>	<b>5m</b>	<b>6m</b>	<b>7m</b>	<b>8m</b>	<b>9m</b>	<b>10m</b>
Lux	56593	14148	6288	3537	2264	1572	1155	884	699	566
<b>Distance</b>	<b>11m</b>	<b>12m</b>	<b>13m</b>	<b>14m</b>	<b>15m</b>	<b>16m</b>	<b>17m</b>	<b>18m</b>	<b>19m</b>	<b>20m</b>
Lux	468	393	335	289	252	221	196	175	157	141
<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	5258	1314	584	329	210	146	107	82	65	53
<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	43	37	31	27	23	21	18	16	15	13



# Photometric Report

Ovation P-56WW: Medium Lens, Full Power

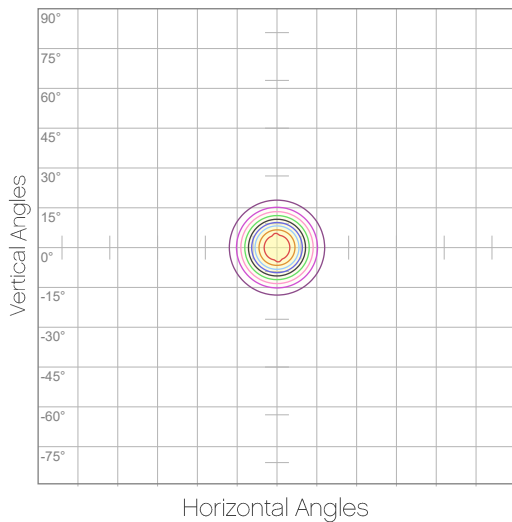
## Candela Plot



Beam Angle (50%): 23.8°  
Field Angle (10%): 39.8°  
Cutoff Angle (3%): 54.7°

— Horizontal Distribution  
— Vertical Distribution

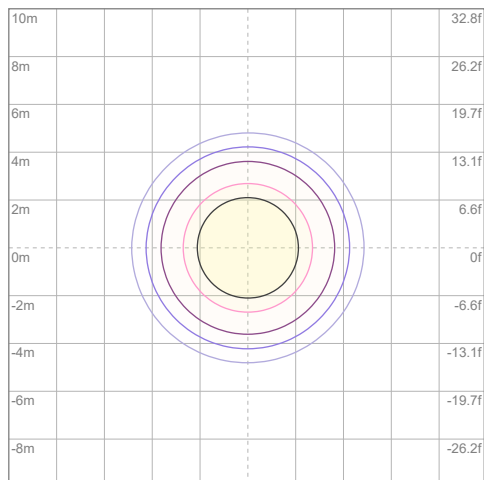
## Polar Diagrams



### iso-candela Diagram

10%	5659 cd
20%	11319 cd
30%	16978 cd
40%	22637 cd
50%	28296 cd
60%	33956 cd
70%	39615 cd
80%	45274 cd
90%	50934 cd

Conditions:  
Number of c-planes: 8  
Candela at center: 56593 cd



### iso-illuminance Diagram

3%	17.0 lx
5%	28.3 lx
10%	56.6 lx
30%	170 lx
50%	283 lx

Conditions:  
Number of c-planes: 8  
Lux at center: 566 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Ovation P-56WW: Narrow Lens, Full Power

## Report Summary

### Output

Total Lumens: 11415 lm  
Peak Intensity: 136886 cd  
Illuminance @ 5m: 5468 lux  
Fixture Efficacy: 55 lm/W

### Optical

Horizontal Beam Angle (50%): 11.8°  
Vertical Beam Angle (50%): 11.7°  
Horizontal Field Angle (10%): 26.6°  
Vertical Field Angle (10%): 26.4°  
Horizontal Cutoff Angle (3%): 40.5°  
Vertical Cutoff Angle (3%): 40.1°

### Conditions

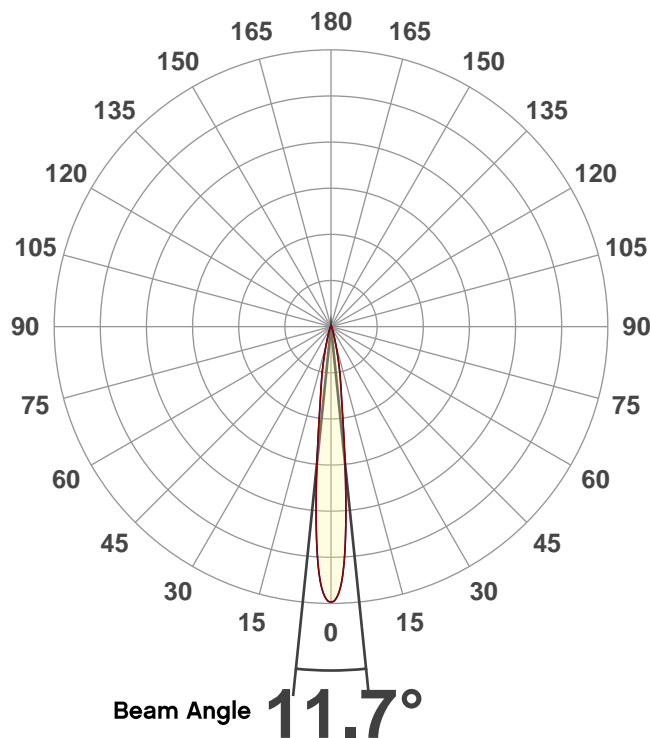
AC Supply: 119 V, 0 Hz  
Power: 210.08 W  
Current: 1.75 A  
Power Factor: 0.99



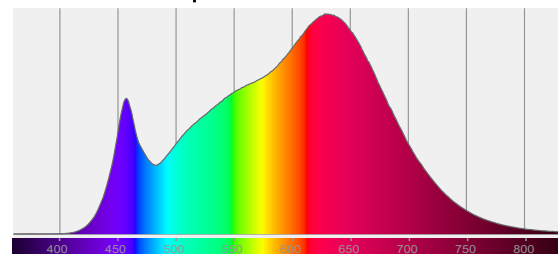
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## Overall Measurement

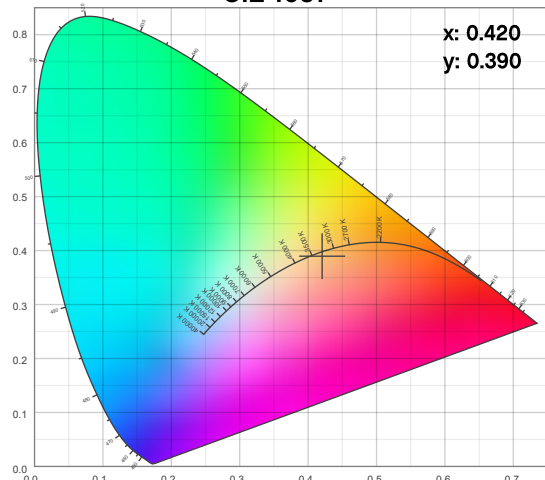
Angular Beam Distribution



Spectral Distribution



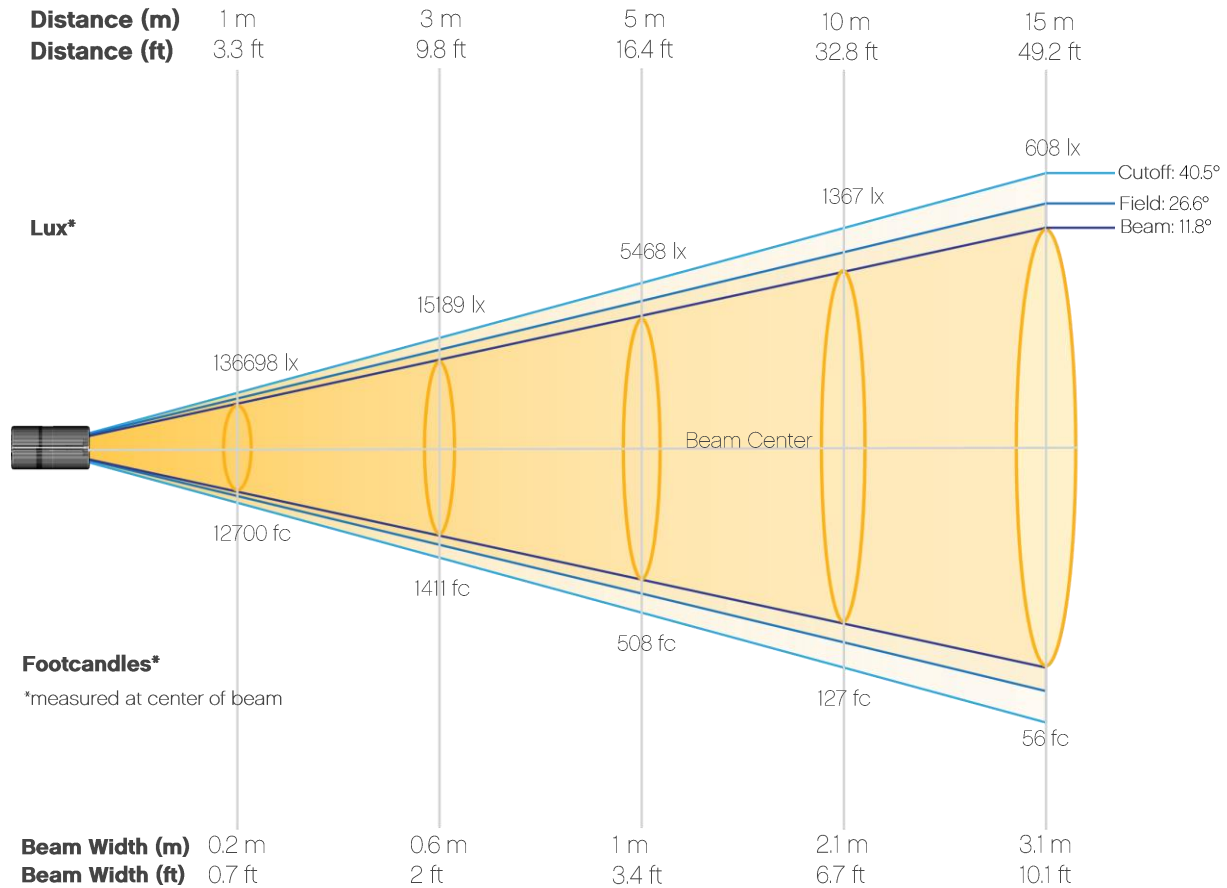
CIE 1931



# Photometric Report

Ovation P-56WW: Narrow Lens, Full Power

## Beam Details

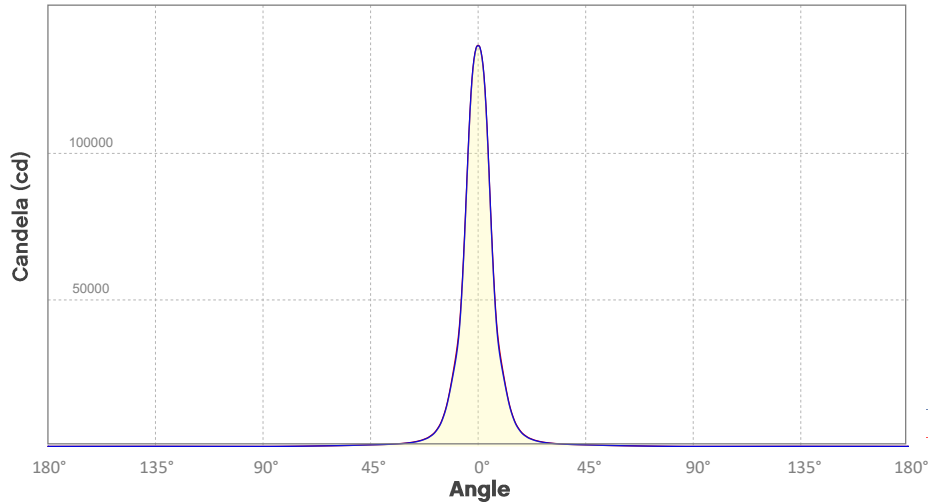


### Beam luminances from 1-20m (3.3-65.6ft)

<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	136698	34175	15189	8544	5468	3797	2790	2136	1688	1367
<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	1130	949	809	697	608	534	473	422	379	342
<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	12700	3175	1411	794	508	353	259	198	157	127
<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	105	88	75	65	56	50	44	39	35	32

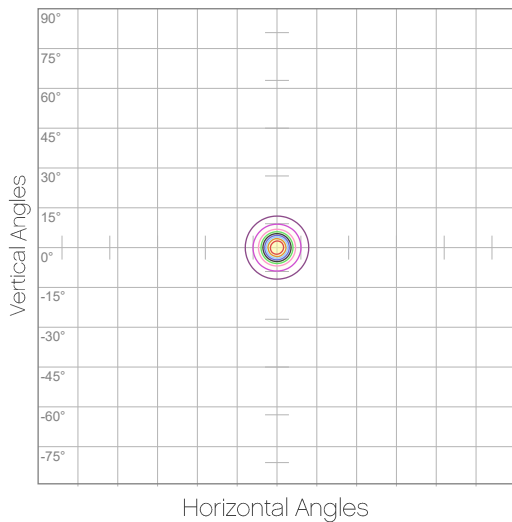
# Photometric Report

Ovation P-56WW: Narrow Lens, Full Power  
Candela Plot



Beam Angle (50%): 11.7°  
Field Angle (10%): 26.5°  
Cutoff Angle (3%): 40.3°

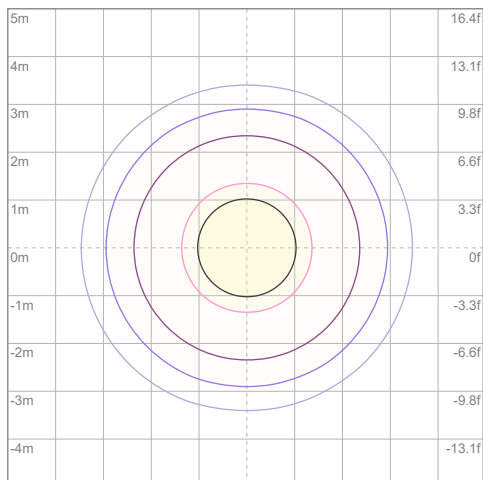
## Polar Diagrams



### iso-candela Diagram

10%	13670 cd
20%	27340 cd
30%	41009 cd
40%	54679 cd
50%	68349 cd
60%	82019 cd
70%	95689 cd
80%	109358 cd
90%	123028 cd

Conditions:  
Number of c-planes: 8  
Candela at center: 136698 cd



### iso-illuminance Diagram

3%	41.0 lx
5%	68.3 lx
10%	137 lx
30%	410 lx
50%	683 lx

Conditions:  
Number of c-planes: 8  
Lux at center: 1367 lx

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

Mounting height: 10 meters / 33 feet

# Chromaticity Report

Ovation P-56WW: Full Power

## Report Summary

### Measurements

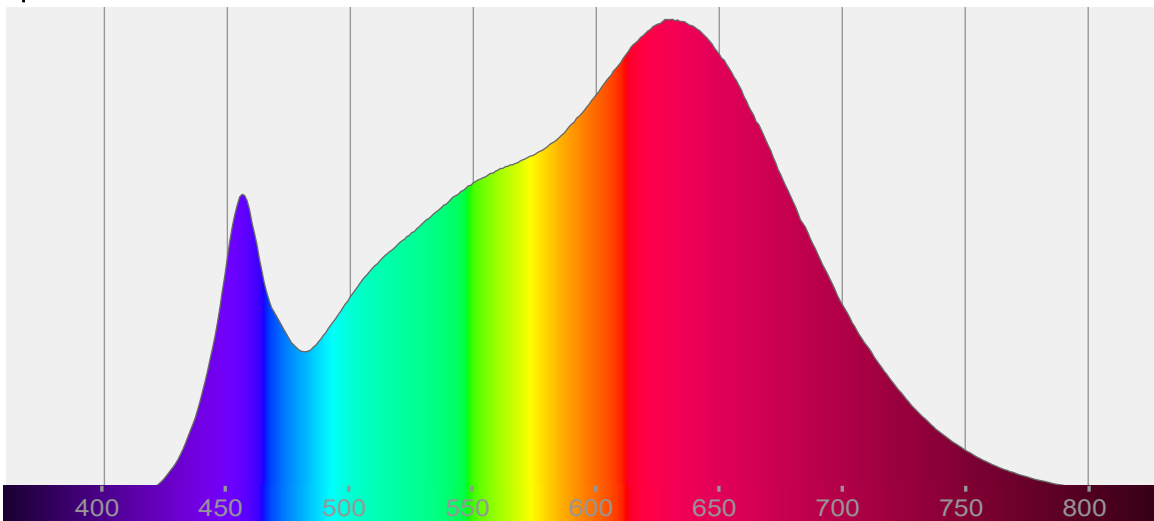
Total Lumens: 11756 lm  
Peak Intensity: 9092 cd  
Fixture Efficacy: 57 lm/W

Correlated Color Temperature: 3228K  
 $\Delta uv$ : -0.0029

CRI: 97.9      CRI R9 Value: 93.9  
CQS: 94.9  
TLCI: 98  
TM-30-18 Rf: 94.0  
TM-30-18 Rg: 100.9  
1<sup>st</sup> Dominant Wavelength: 631 nm  
2<sup>nd</sup> Dominant Wavelength: 456 nm



### Spectral Distribution



#### Tested Color

**3228 K**

CIE 1931 Coordinates:  
X: 0.418    Y: 0.390

#### Color Temperature

3228 K

#### Light Quality

CRI: 97.9

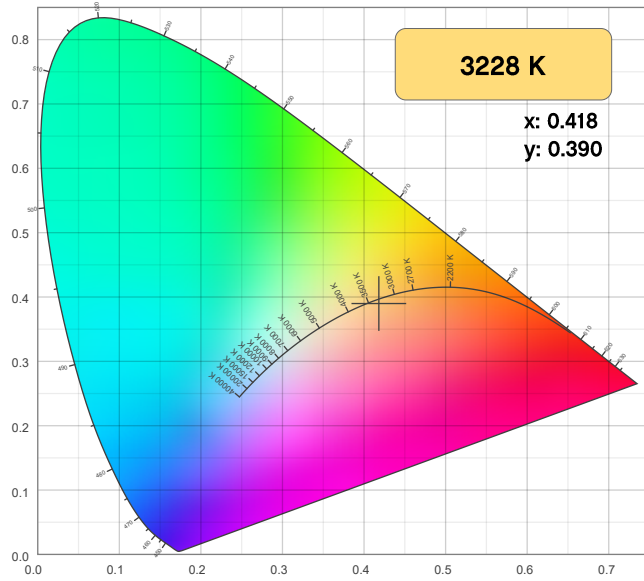
#### Notes:

# Chromaticity Report

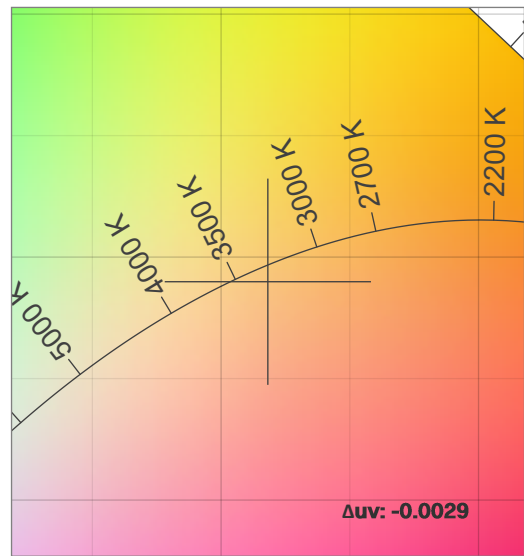
Ovation P-56WW: Full Power

## Chromaticity

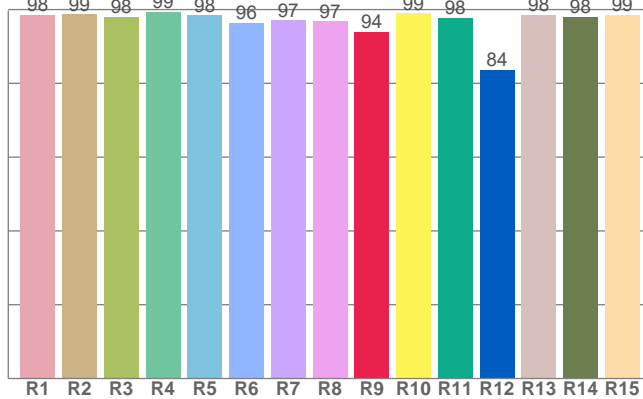
CIE 1931



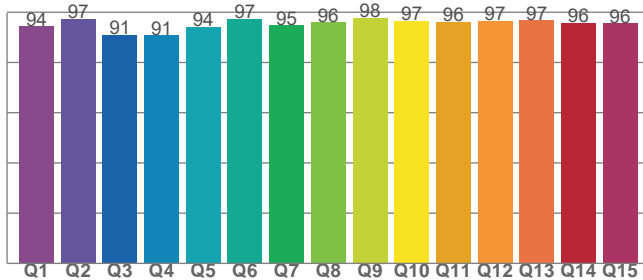
CIE 1931 - Zoom



CRI: 97.9 (R1-R8)



CQS: 94.9



Color Parameters

Color Temperature	Color Coordinate CIE 1931	Color Coordinate CIE 1931
CCT	x	y
3228 K	0.418	0.390

Color Deviation from Black Body Curve	Color Coordinate CIE 1964	Color Coordinate CIE 1964
$\Delta_{uv}$	y	u
-0.0029	0.390	0.244

Color Rendering Index	Red Component	Color Quality Scale
CRI	CRI - R9	CQS
97.9	93.9	94.9

Television Lighting Consistency Index	Color Fidelity	Color Gamut
TLCI	TM-30-18 - Rf	TM-30-18 Rg
98	94.0	100.9

# Chromaticity Report

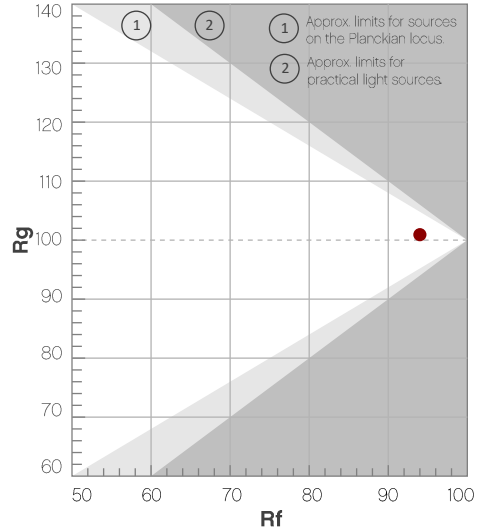
Ovation P-56WW: Full Power

## TM-30-18 Details

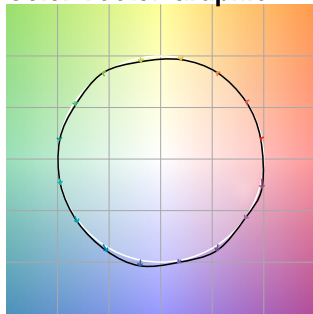
**Rf 94.0**  
Fidelity Index (R<sub>f</sub>)

**Rg 100.9**  
Gamut Index (R<sub>g</sub>)

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



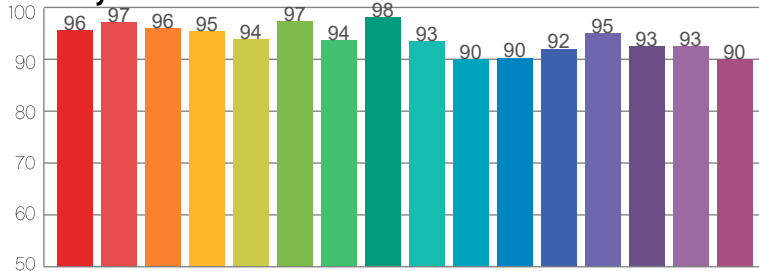
Color Vector Graphic



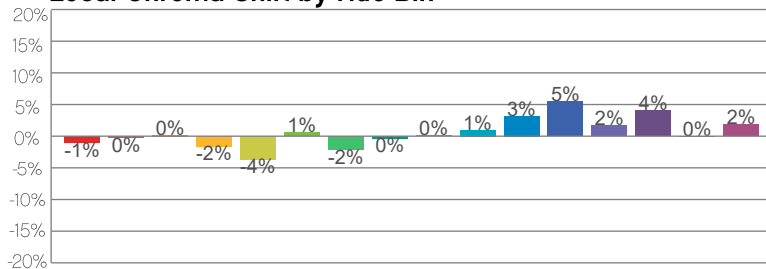
Color Distortion Graphic



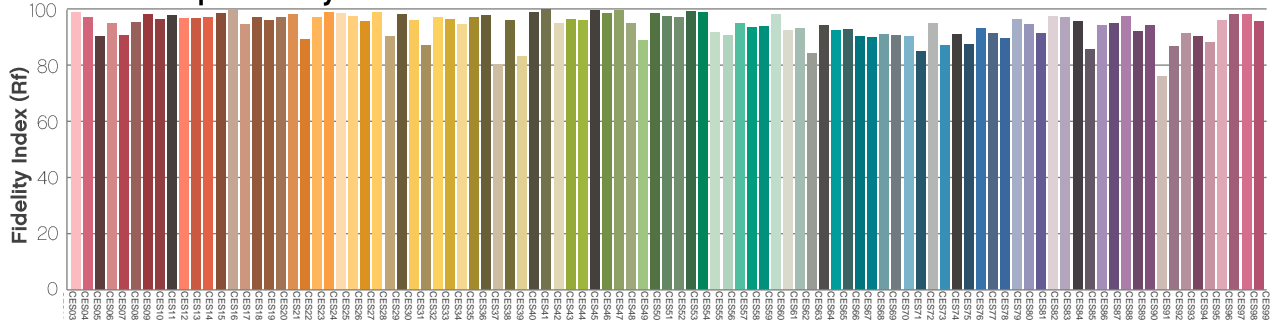
R<sub>f</sub> by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



## Contact Us

General Information	Technical Support
<b>Chauvet World Headquarters</b>	
5200 NW 108 <sup>th</sup> Ave. Sunrise, FL 33351 Voice: (954) 577-4455 Fax: (954) 929-5560 Toll Free: (800) 762-1084	Voice: (844) 393-7575 Fax: (954) 756-8015 Email: <a href="mailto:chauvetcs@chauvetlighting.com">chauvetcs@chauvetlighting.com</a> Website: <a href="http://www.chauvetprofessional.com">www.chauvetprofessional.com</a>
<b>Chauvet Europe Ltd</b>	
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