

PHOTOMETRICS REPORT

# COLORADO 1 SOLO



# Table of Contents

<b>1. Testing Process</b> .....	1
<b>2. Photometric Reports</b> .....	2
<b>Full Flood – Full Power</b> .....	2
Report Summary .....	2
Overall Measurement .....	2
Beam Details .....	3
Polar Diagrams .....	4
<b>Full Spot – Full Power</b> .....	5
Report Summary .....	5
Overall Measurement .....	5
Beam Details .....	6
Polar Diagrams .....	7
<b>50% Zoom – Full Power</b> .....	8
Report Summary .....	8
Overall Measurement .....	8
Beam Details .....	9
Polar Diagrams .....	10
<b>3. Contact Us</b> .....	11

## 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

COLORado 1 Solo: Full Flood, Full Power

## Report Summary

### Output

Total Lumens: 739 lm  
Peak Intensity: 1354 cd  
Illuminance @ 5m: 54 lux  
Fixture Efficacy: 10 lm/W

### Optical

Horizontal Beam Angle (50%): 48.2°  
Vertical Beam Angle (50%): 49.7°  
Horizontal Field Angle (10%): 59.8°  
Vertical Field Angle (10%): 59.4°  
Horizontal Cutoff Angle (3%): 64.3°  
Vertical Cutoff Angle (3%): 63.4°

### Conditions

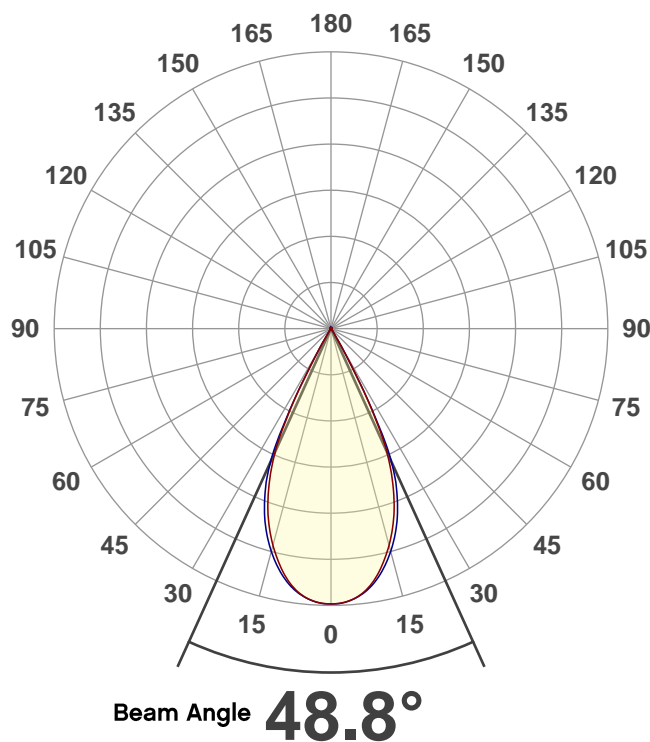
AC Supply: 119 V, 60 Hz  
Power: 78.07 W  
Current: 0.658 A  
Power Factor: 0.99



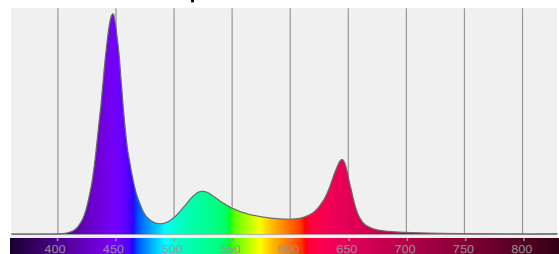
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 2/10/2020 to LM-63-2002 Standards.

## Overall Measurement

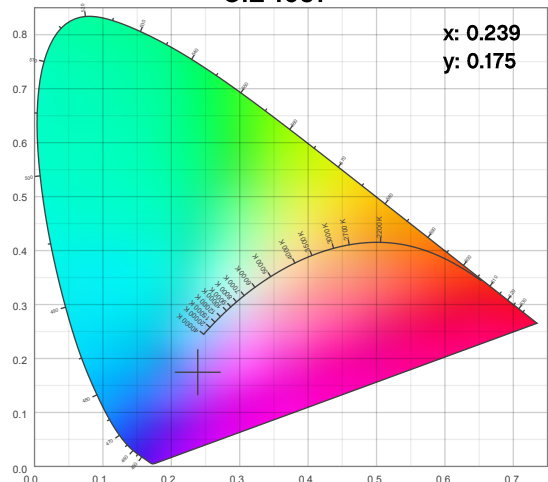
Angular Beam Distribution



Spectral Distribution



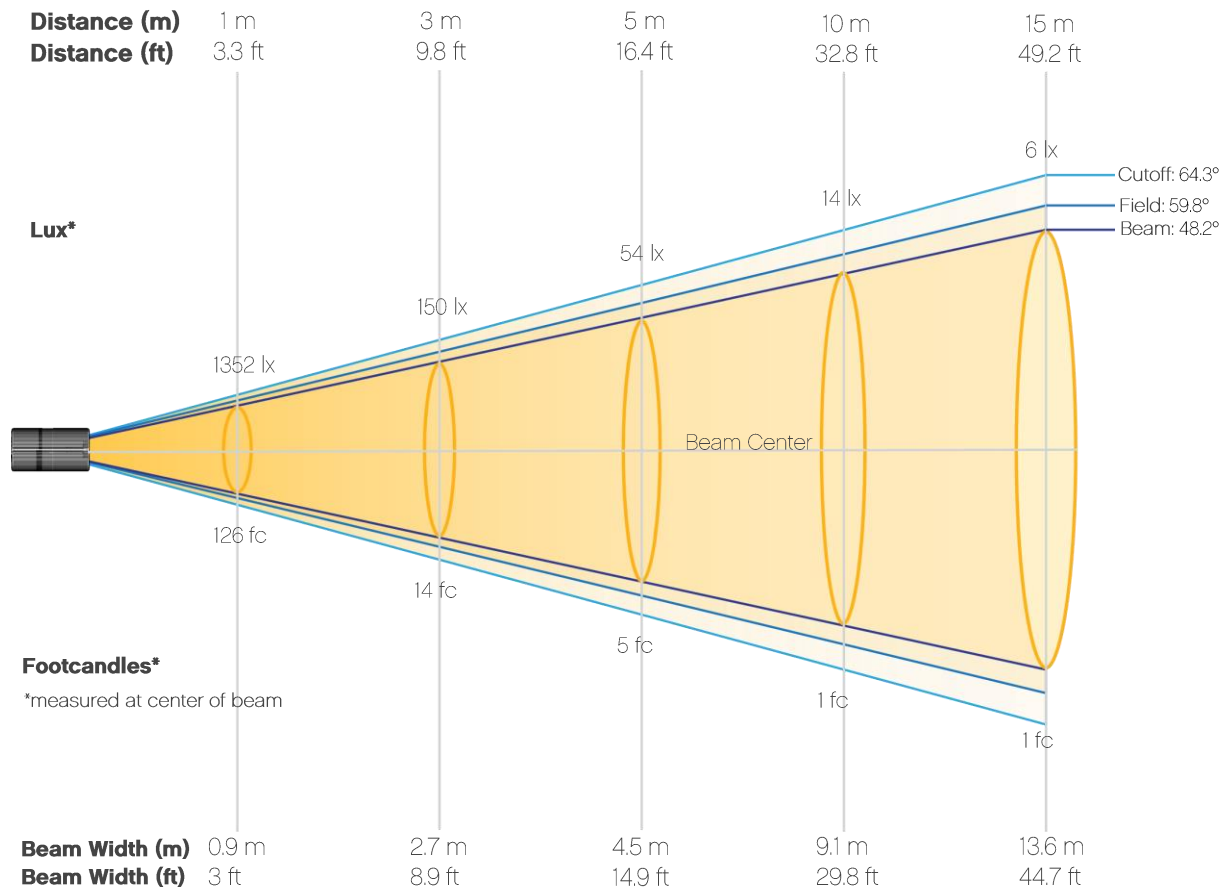
CIE 1931



# Photometric Report

COLORado 1 Solo: Full Flood, Full Power

## Beam Details



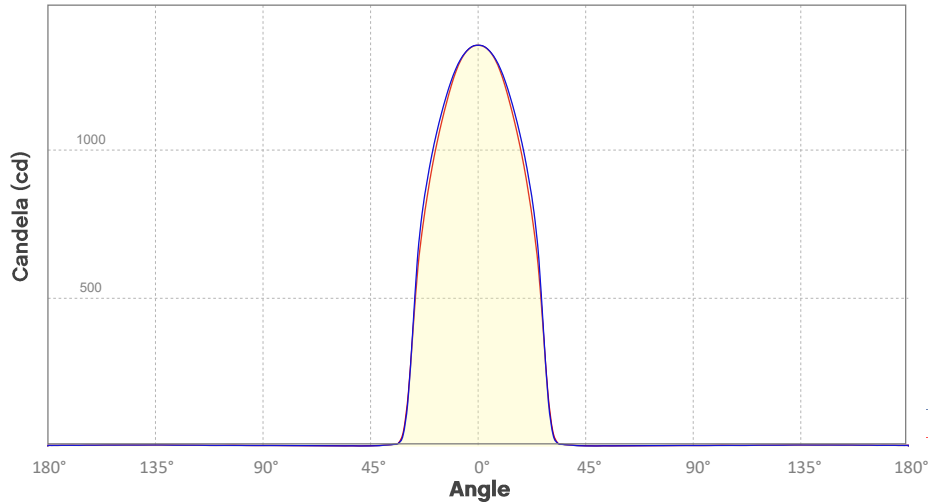
### Beam Illuminances from 1-20m (3.3-65.6ft)

<b>Distance</b>	<b>1m</b>	<b>2m</b>	<b>3m</b>	<b>4m</b>	<b>5m</b>	<b>6m</b>	<b>7m</b>	<b>8m</b>	<b>9m</b>	<b>10m</b>
Lux	1352	338	150	85	54	38	28	21	17	14
<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	11	9	8	7	6	5	5	4	4	3
<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	126	31	14	8	5	3	3	2	2	1
<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	1	1	1	1	1	0	0	0	0	0

# Photometric Report

COLORado 1 Solo: Full Flood, Full Power

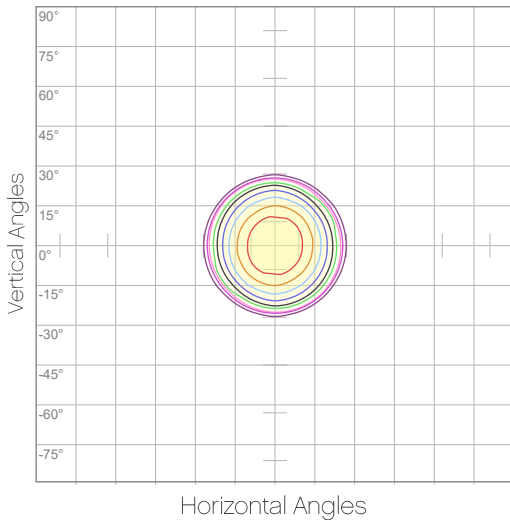
## Candela Plot



Beam Angle (50%): 48.8°  
 Field Angle (10%): 59.4°  
 Cutoff Angle (3%): 63.5°

— Horizontal Distribution  
 — Vertical Distribution

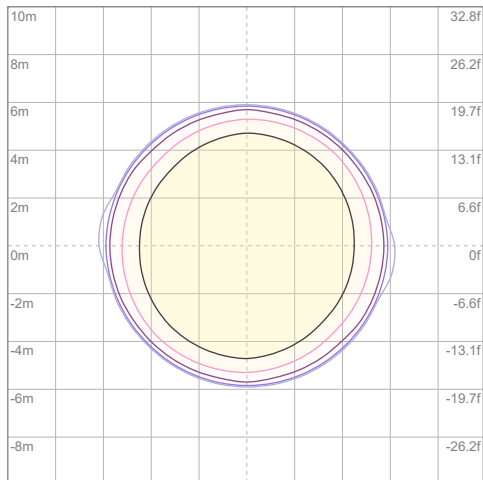
## Polar Diagrams



### iso-candela Diagram

10%	135 cd
20%	270 cd
30%	406 cd
40%	541 cd
50%	676 cd
60%	811 cd
70%	947 cd
80%	1082 cd
90%	1217 cd

Conditions:  
 Number of c-planes: 8  
 Candela at center: 1352 cd



### iso-illuminance Diagram

3%	0.406 lx
5%	0.676 lx
10%	1.35 lx
30%	4.06 lx
50%	6.76 lx

Conditions:  
 Number of c-planes: 8  
 Lux at center: 13.5 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

COLOrado 1 Solo: Full Spot, Full Power

## Report Summary

### Output

Total Lumens: 734 lm  
Peak Intensity: 65520 cd  
Illuminance @ 5m: 2618 lux  
Fixture Efficacy: 9 lm/W

### Optical

Horizontal Beam Angle (50%): 5.1°  
Vertical Beam Angle (50%): 5.3°  
Horizontal Field Angle (10%): 8.8°  
Vertical Field Angle (10%): 9.1°  
Horizontal Cutoff Angle (3%): 11.2°  
Vertical Cutoff Angle (3%): 11.4°

### Conditions

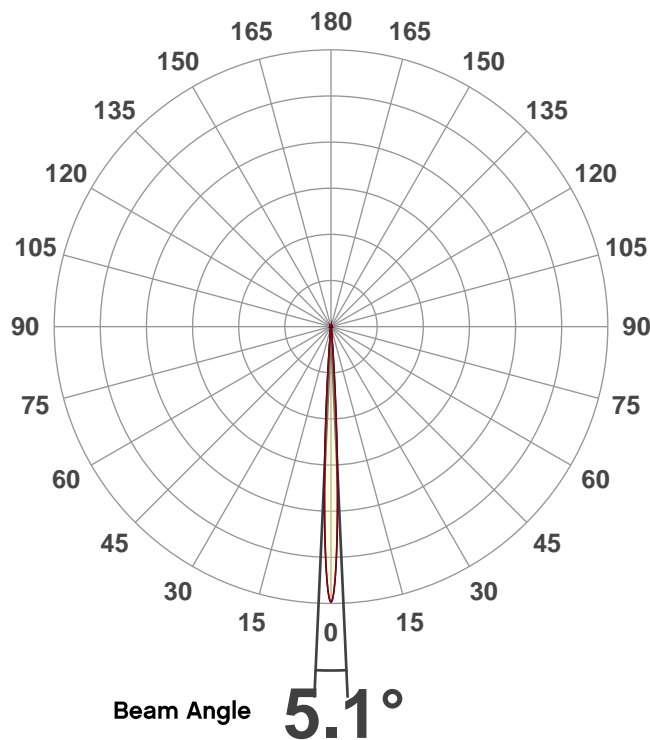
AC Supply: 119 V, 60 Hz  
Power: 80.08 W  
Current: 0.675 A  
Power Factor: 0.99



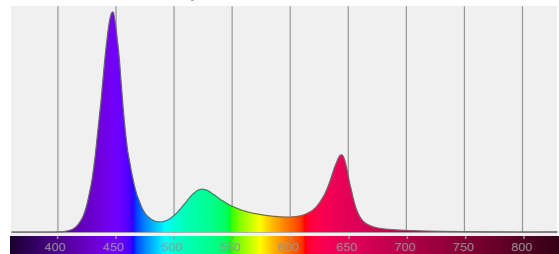
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 2/10/2020 to LM-63-2002 Standards.

## Overall Measurement

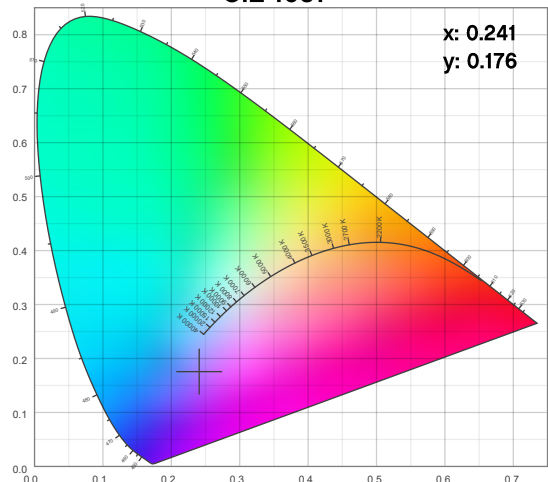
Angular Beam Distribution



Spectral Distribution



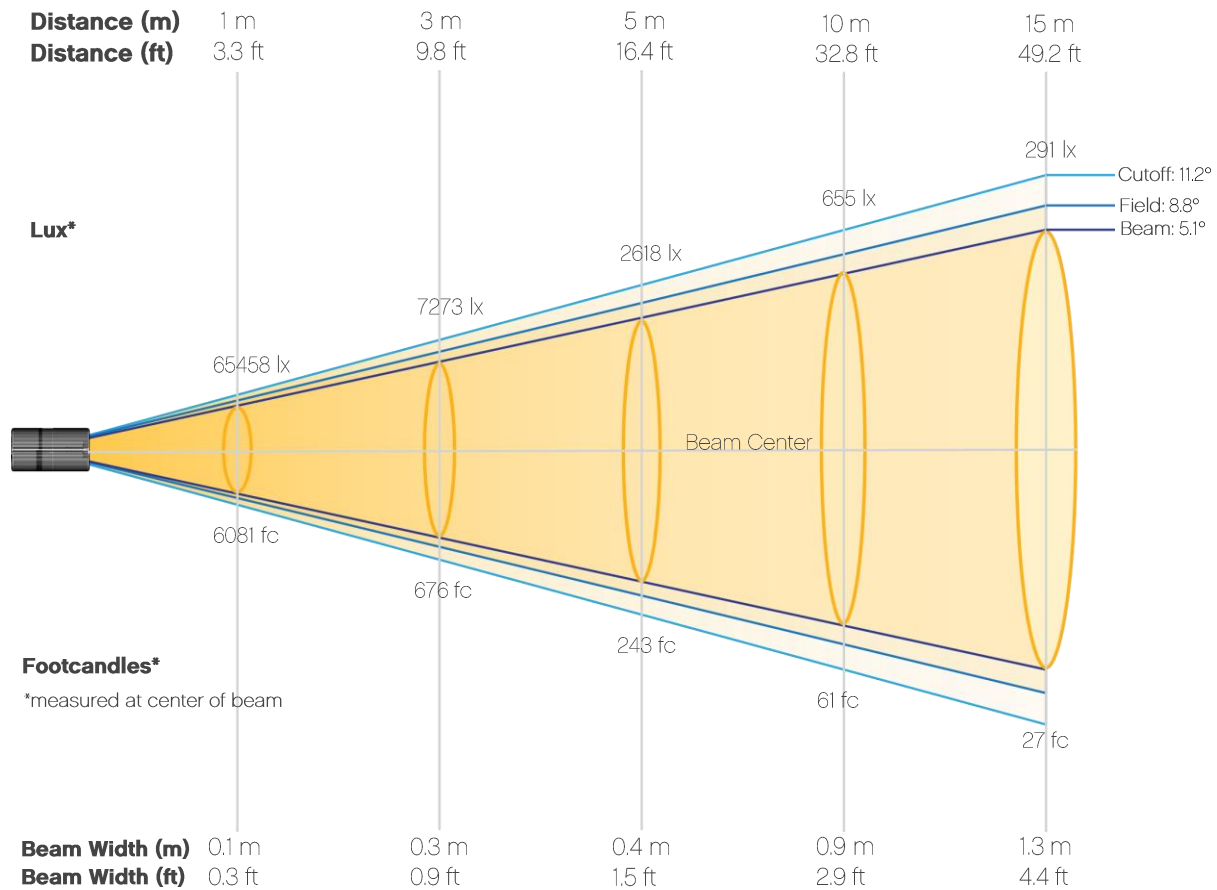
CIE 1931



# Photometric Report

COLORado 1 Solo: Full Spot, Full Power

## Beam Details



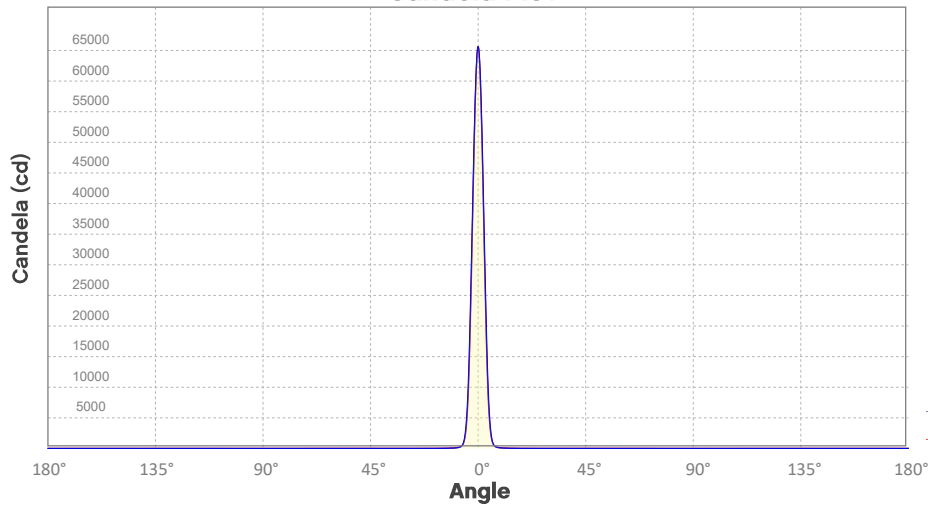
### Beam Illuminances from 1-20m (3.3-65.6ft)

<b>Distance</b>	<b>1m</b>	<b>2m</b>	<b>3m</b>	<b>4m</b>	<b>5m</b>	<b>6m</b>	<b>7m</b>	<b>8m</b>	<b>9m</b>	<b>10m</b>
Lux	65458	16365	7273	4091	2618	1818	1336	1023	808	655
<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	541	455	387	334	291	256	226	202	181	164
<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	6081	1520	676	380	243	169	124	95	75	61
<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	50	42	36	31	27	24	21	19	17	15



# Photometric Report

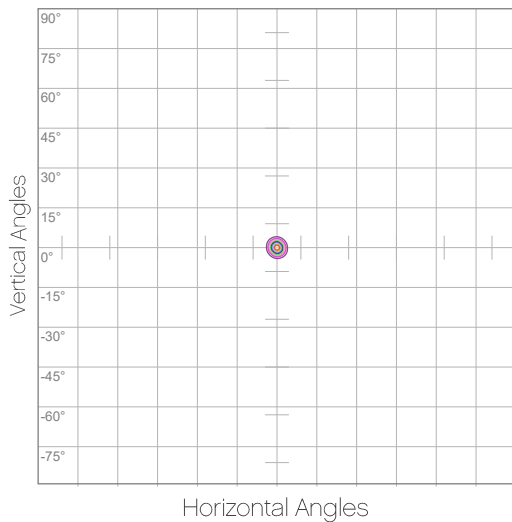
COLORado 1 Solo: Full Spot, Full Power  
Candela Plot



Beam Angle (50%): 5.1°  
Field Angle (10%): 9°  
Cutoff Angle (3%): 11.3°

— Horizontal Distribution  
— Vertical Distribution

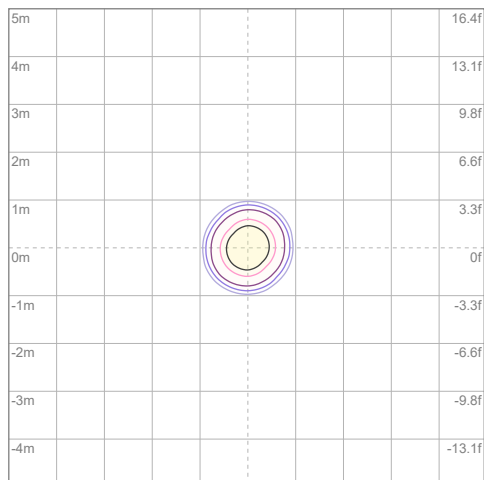
## Polar Diagrams



### iso-candela Diagram

10%	6546 cd
20%	13092 cd
30%	19637 cd
40%	26183 cd
50%	32729 cd
60%	39275 cd
70%	45821 cd
80%	52367 cd
90%	58912 cd

Conditions:  
Number of c-planes: 8  
Candela at center: 65458 cd



### iso-illuminance Diagram

3%	19.6 lx
5%	32.7 lx
10%	65.5 lx
30%	196 lx
50%	327 lx

Conditions:  
Number of c-planes: 8  
Lux at center: 655 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

COLORado 1 Solo: 50% Zoom, Full Power

## Report Summary

### Output

Total Lumens: 811 lm  
Peak Intensity: 5193 cd  
Illuminance @ 5m: 207 lux  
Fixture Efficacy: 10 lm/W

### Optical

Horizontal Beam Angle (50%): 24.5°  
Vertical Beam Angle (50%): 25.4°  
Horizontal Field Angle (10%): 33.5°  
Vertical Field Angle (10%): 33.9°  
Horizontal Cutoff Angle (3%): 36.6°  
Vertical Cutoff Angle (3%): 36.9°

### Conditions

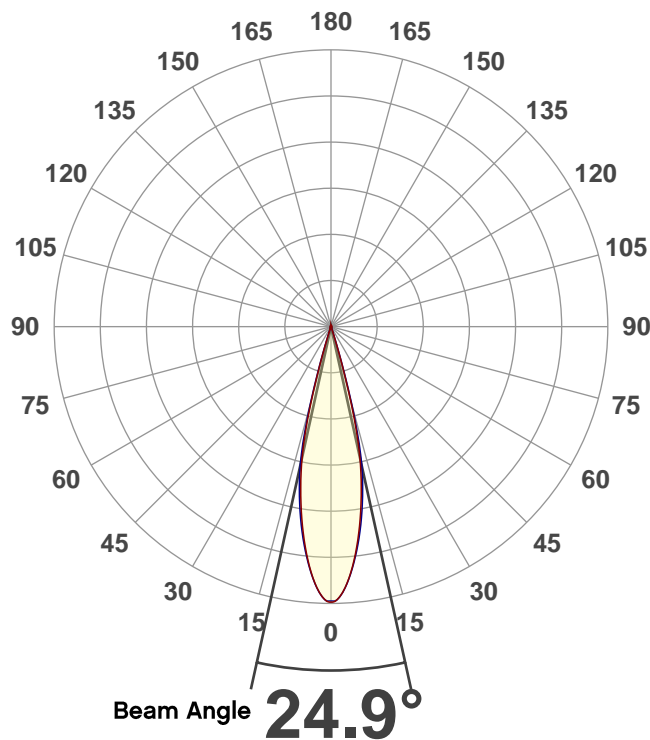
AC Supply: 118 V, 60 Hz  
Power: 78.83 W  
Current: 0.667 A  
Power Factor: 0.99



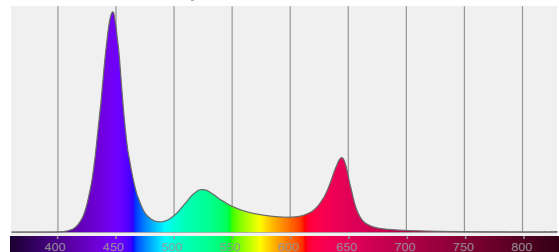
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## Overall Measurement

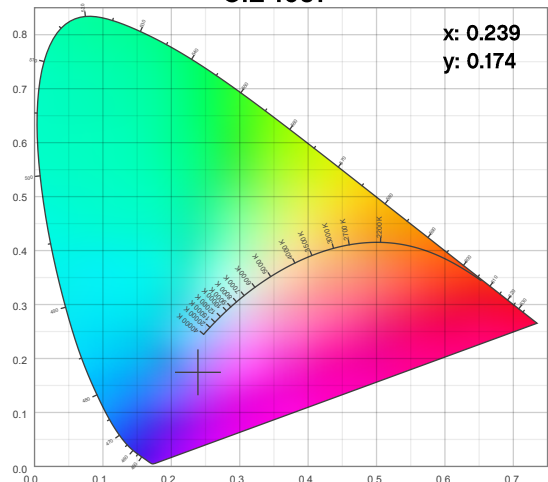
Angular Beam Distribution



Spectral Distribution



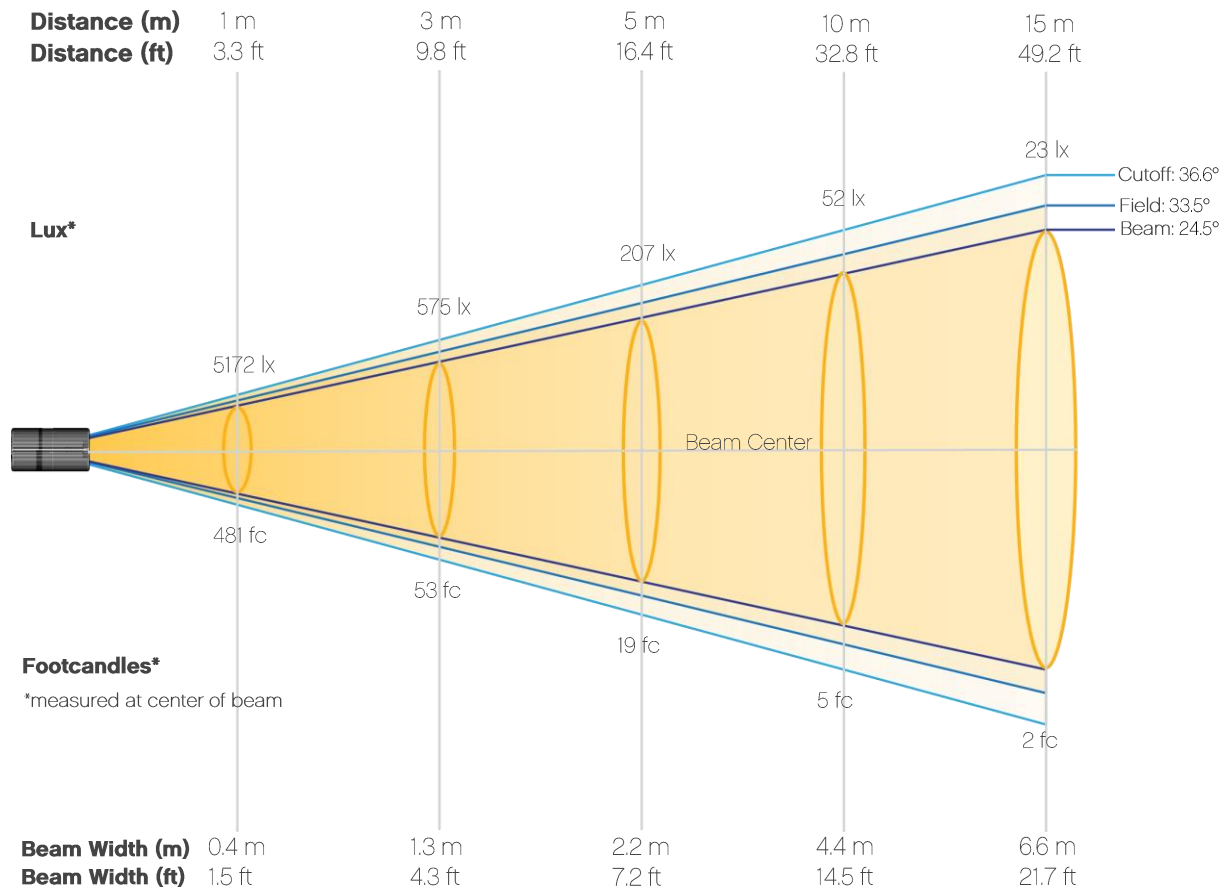
CIE 1931



# Photometric Report

COLORado 1 Solo: 50% Zoom, Full Power

## Beam Details



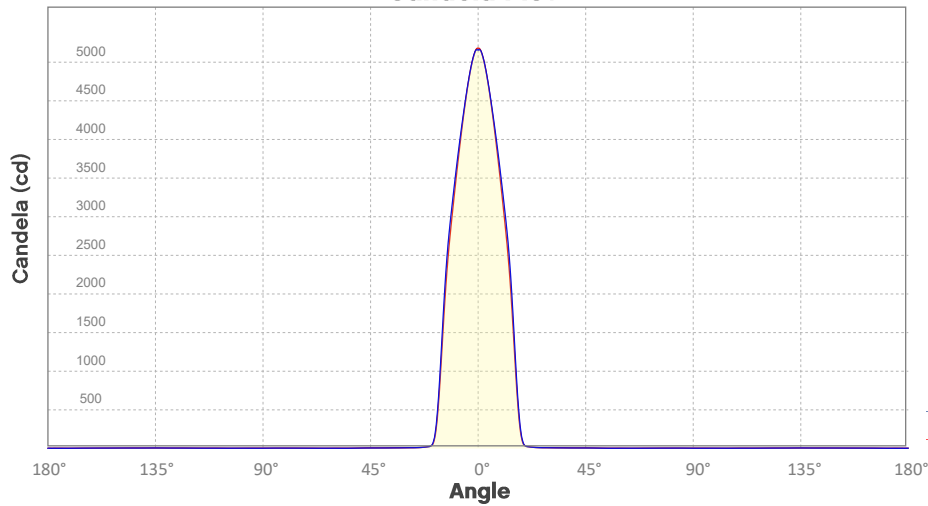
### Beam Illuminances from 1-20m (3.3-65.6ft)

<b>Distance</b>	<b>1m</b>	<b>2m</b>	<b>3m</b>	<b>4m</b>	<b>5m</b>	<b>6m</b>	<b>7m</b>	<b>8m</b>	<b>9m</b>	<b>10m</b>
Lux	5172	1293	575	323	207	144	106	81	64	52
<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	43	36	31	26	23	20	18	16	14	13
<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	481	120	53	30	19	13	10	8	6	5
<b>Distance</b>	<b>36.1ft</b>	<b>39.4ft</b>	<b>42.7ft</b>	<b>45.9ft</b>	<b>49.2ft</b>	<b>52.5ft</b>	<b>55.8ft</b>	<b>59.1ft</b>	<b>62.3ft</b>	<b>65.6ft</b>
FC	4	3	3	2	2	2	2	1	1	1

# Photometric Report

COLORado 1 Solo: 50% Zoom, Full Power

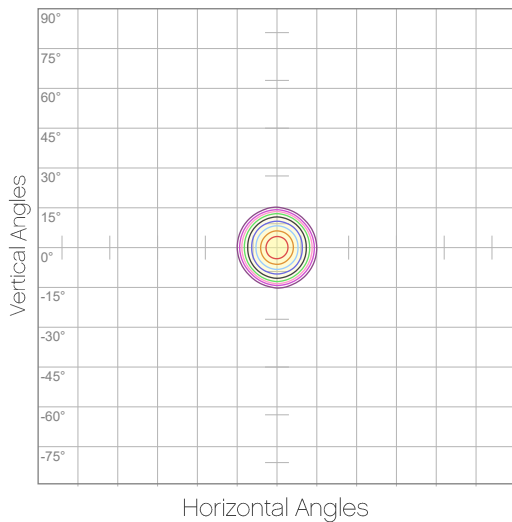
## Candela Plot



Beam Angle (50%): 24.9°  
 Field Angle (10%): 33.5°  
 Cutoff Angle (3%): 36.7°

— Horizontal Distribution  
 — Vertical Distribution

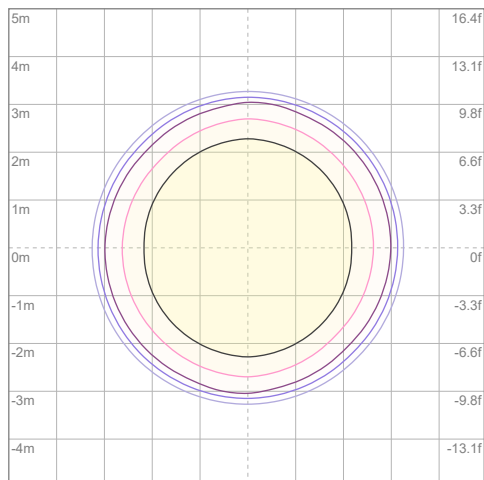
## Polar Diagrams



### iso-candela Diagram

10%	517 cd
20%	1034 cd
30%	1552 cd
40%	2069 cd
50%	2586 cd
60%	3103 cd
70%	3621 cd
80%	4138 cd
90%	4655 cd

Conditions:  
 Number of c-planes: 8  
 Candela at center: 5172 cd



### iso-illuminance Diagram

3%	1.55 lx
5%	2.59 lx
10%	5.17 lx
30%	15.5 lx
50%	25.9 lx

Conditions:  
 Number of c-planes: 8  
 Lux at center: 51.7 lx

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

Mounting height: 10 meters / 33 feet

## 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>
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Visit the applicable website above to verify our contact information and instructions to request support. Outside the U.S., U.K., Ireland, Benelux, France, Germany, or Mexico, contact the dealer of the record.