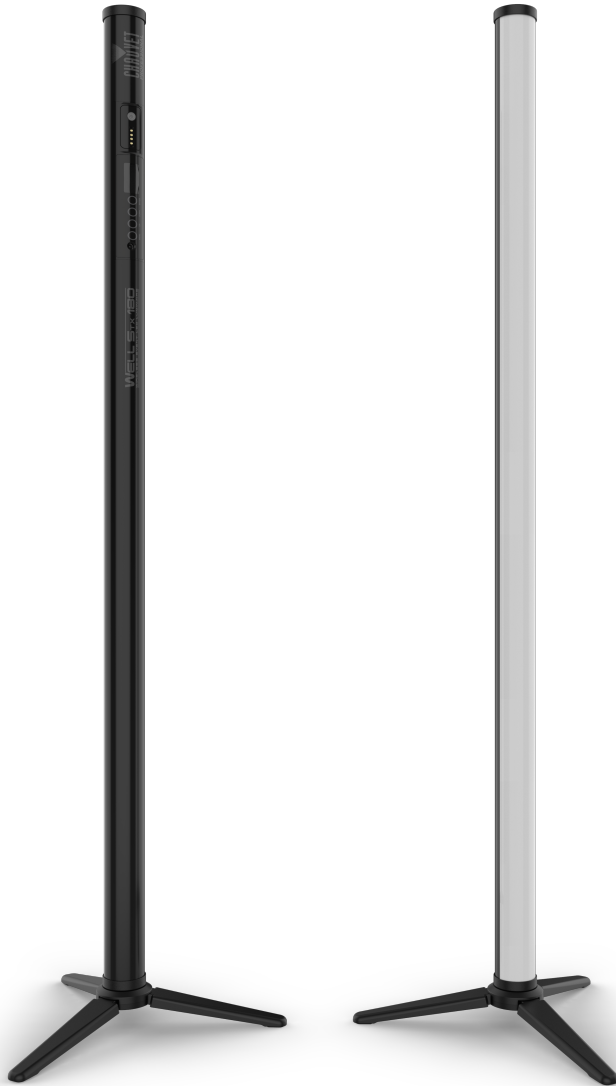


PHOTOMETRICS REPORT

# WELL S<sub>TX</sub> 180

WIRELESS EVENT LED LUMINAIRE



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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.

# Photometric Report

Well STX 180: Standard Optics – Full Power – 3 HR

## Report Summary

### Output

Total Lumens: 1378 lm  
Peak Intensity: 361 cd  
Illuminance @ 5m: 14 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 138.3°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 233.8°  
Horizontal Cutoff Angle (3%): 173.6°  
Vertical Cutoff Angle (3%): 281.5°

### Conditions

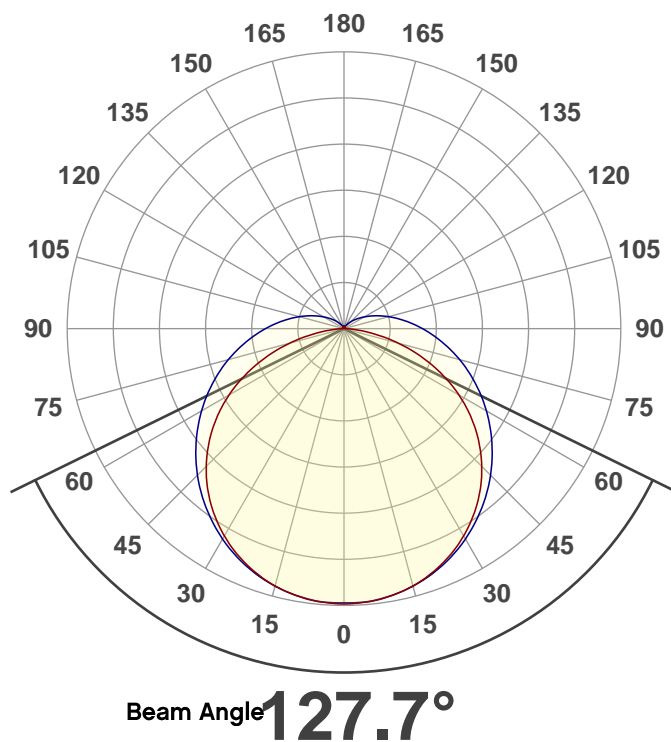
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



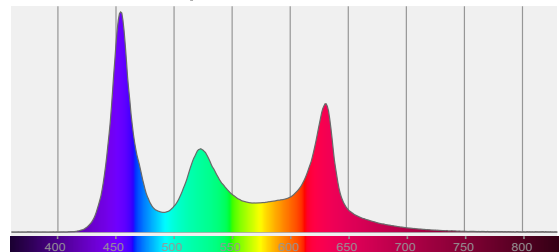
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

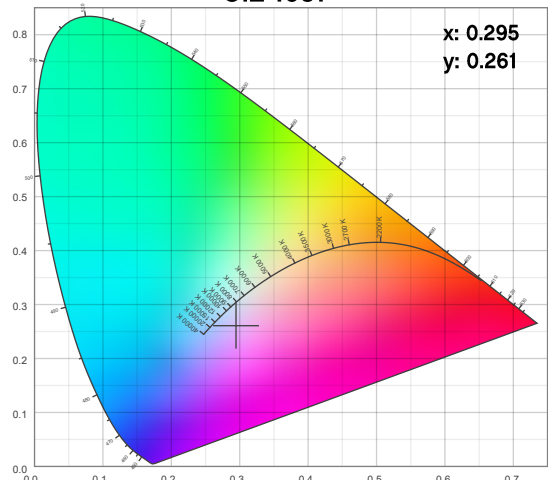
Angular Beam Distribution



Spectral Distribution



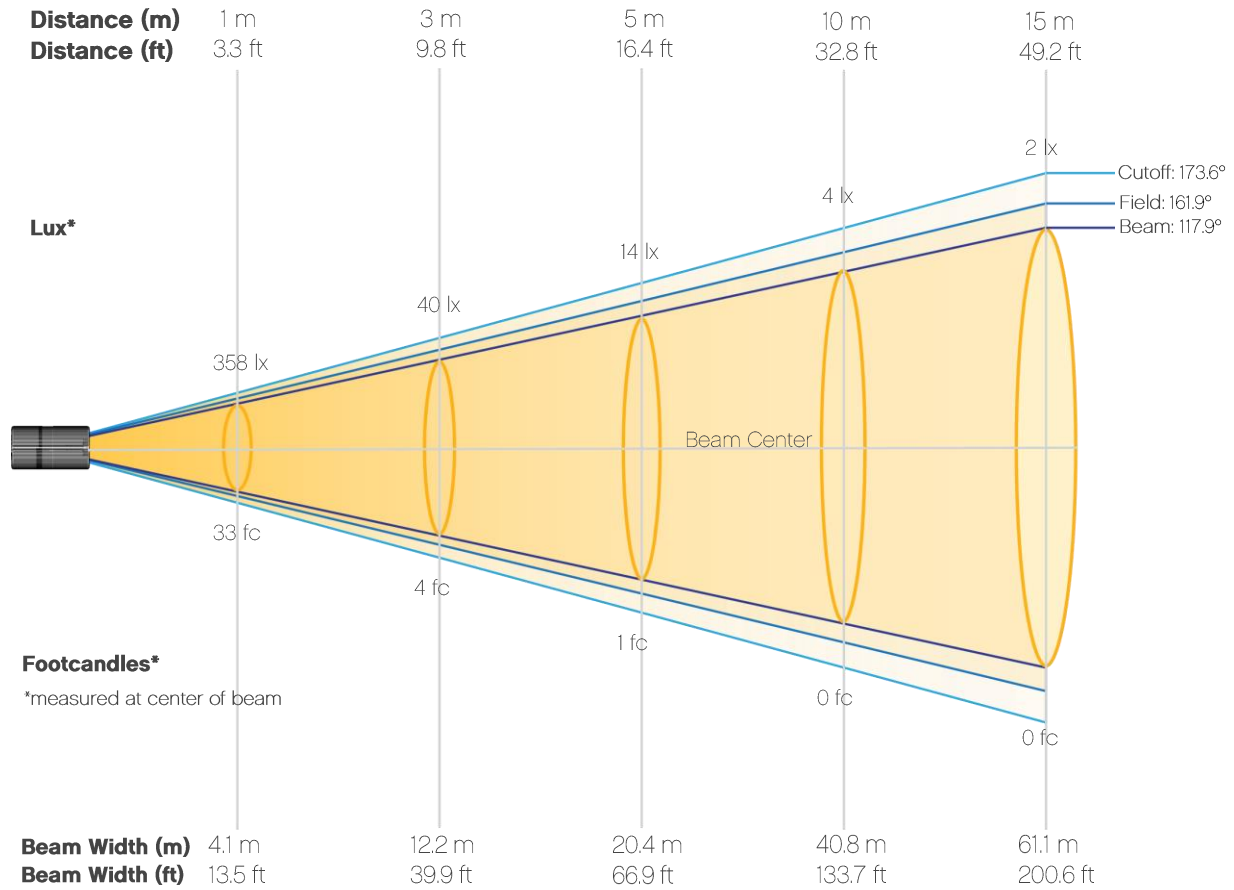
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Full Power – 3 HR

## Beam Details



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

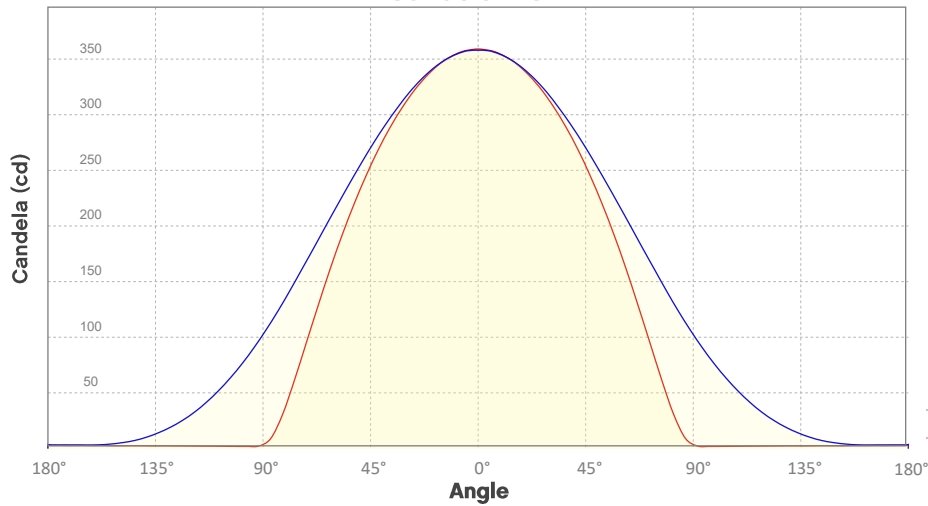
|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 358           | 90            | 40            | 22            | 14            | 10            | 7             | 6             | 4             | 4             |
| <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             | 3             | 2             | 2             | 2             | 2             | 1             | 1             | 1             | 1             | 1             |
| <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              | 33            | 8             | 4             | 2             | 1             | 1             | 1             | 1             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |



# Photometric Report

Well STX 180: Standard Optics – Full Power – 3 HR

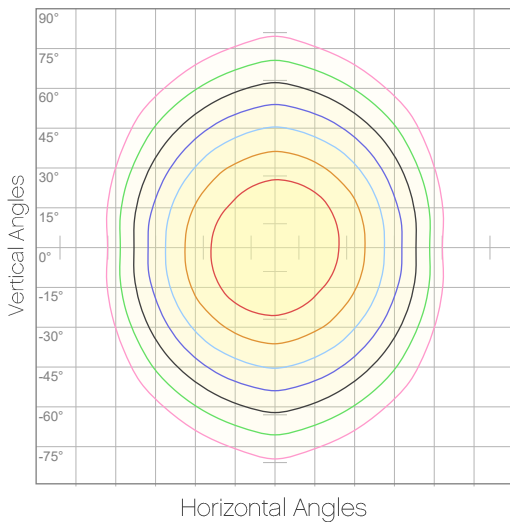
## Candela Plot



Beam Angle (50%): 127.7°  
 Field Angle (10%): 202.3°  
 Cutoff Angle (3%): 240.7°

— Horizontal Distribution  
 — Vertical Distribution

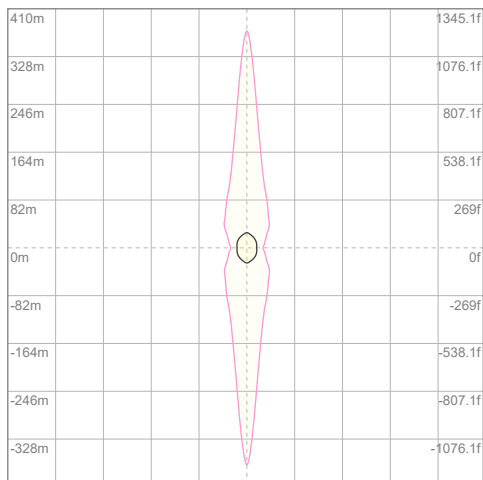
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 36 cd  |
| 20% | 72 cd  |
| 30% | 107 cd |
| 40% | 143 cd |
| 50% | 179 cd |
| 60% | 215 cd |
| 70% | 251 cd |
| 80% | 286 cd |
| 90% | 322 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 358 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 0.107 lx |
| 5%  | 0.179 lx |
| 10% | 0.358 lx |
| 30% | 1.07 lx  |
| 50% | 1.79 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 3.58 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Full Power – 5 HR

## Report Summary

### Output

Total Lumens: 727 lm  
Peak Intensity: 191 cd  
Illuminance @ 5m: 8 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 138.3°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 233.9°  
Horizontal Cutoff Angle (3%): 174.9°  
Vertical Cutoff Angle (3%): 281.7°

### Conditions

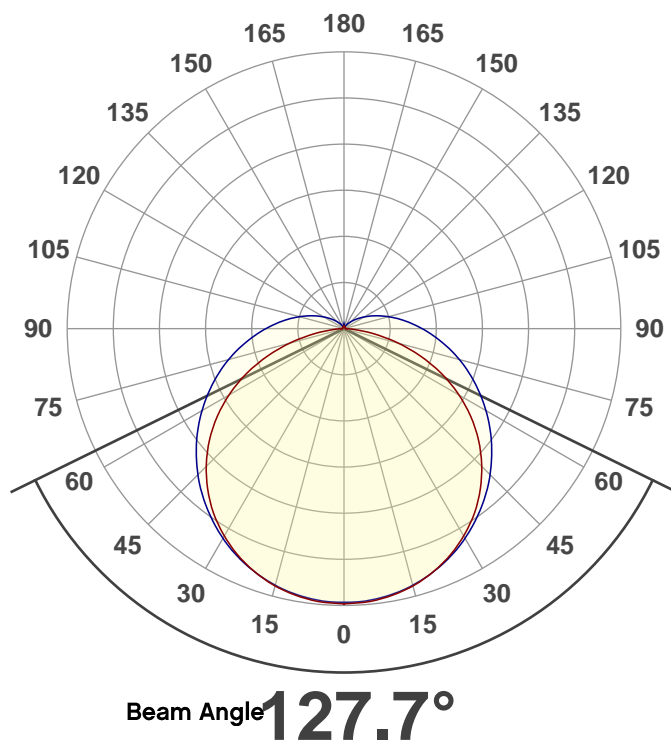
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



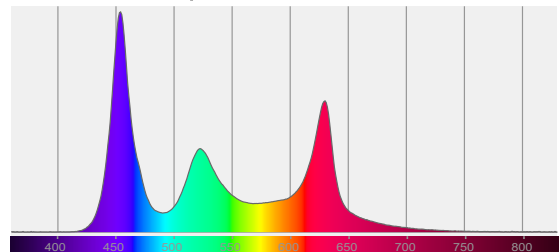
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

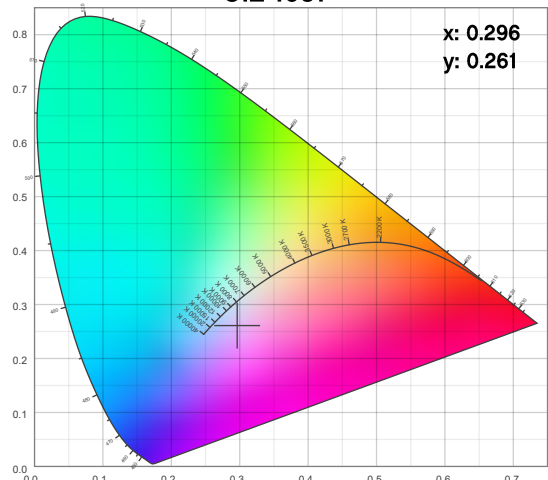
Angular Beam Distribution



Spectral Distribution



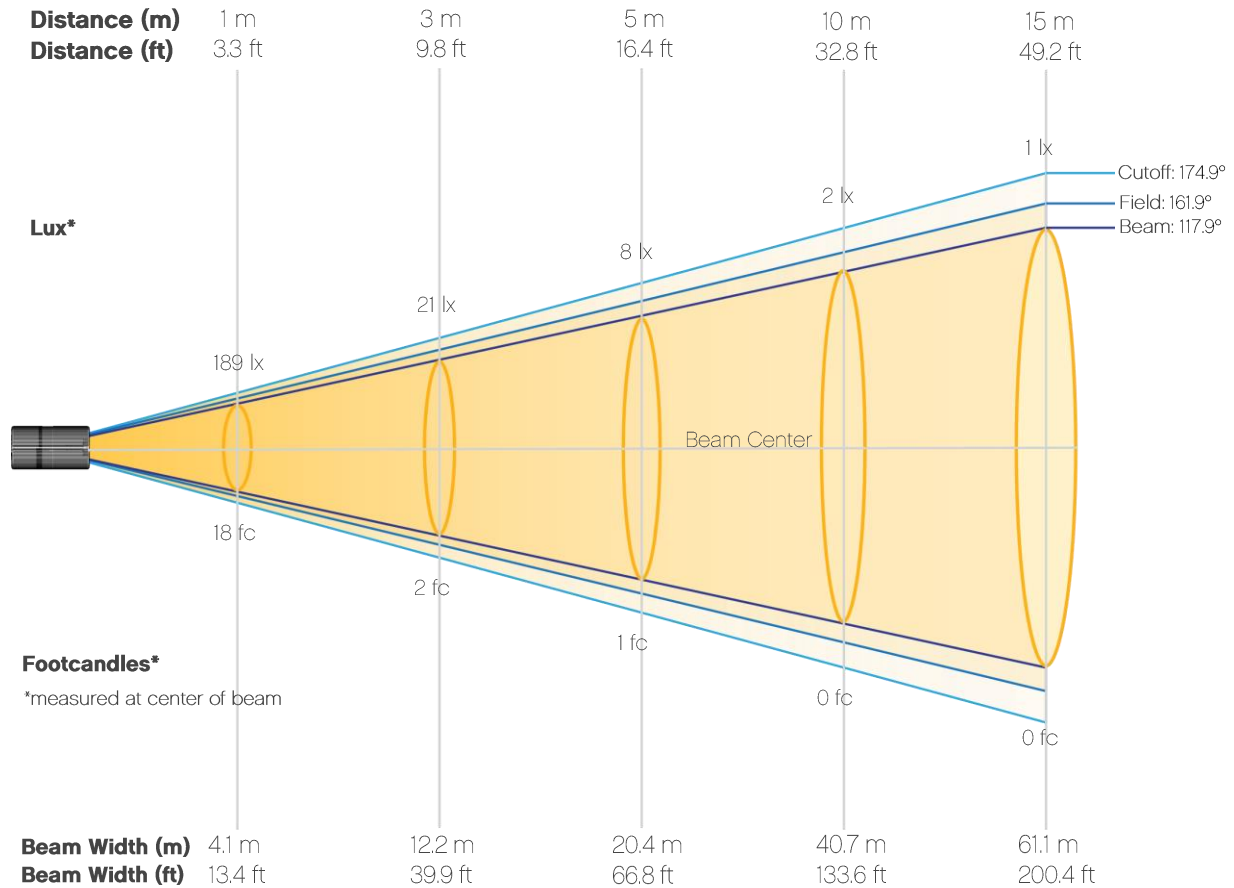
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Full Power – 5 HR

## Beam Details



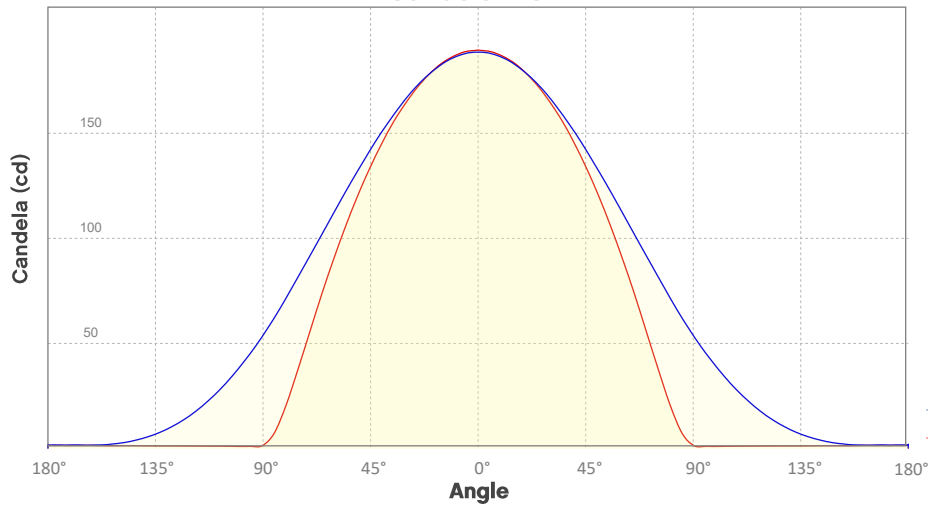
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 189           | 47            | 21            | 12            | 8             | 5             | 4             | 3             | 2             | 2             |
| <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             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 0             |
| <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              | 18            | 4             | 2             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Full Power – 5 HR

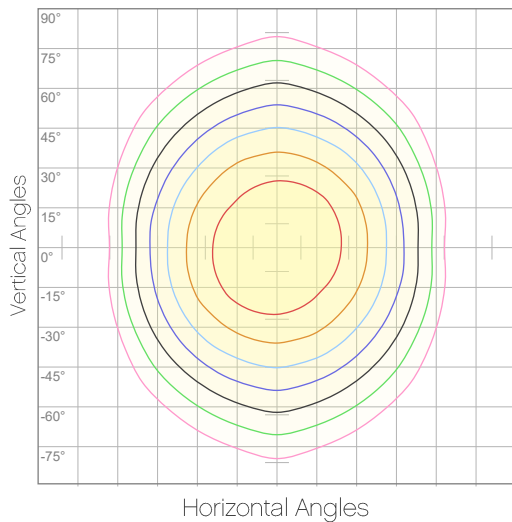
## Candela Plot



Beam Angle (50%): 127.7°  
 Field Angle (10%): 202.2°  
 Cutoff Angle (3%): 241°

— Horizontal Distribution  
 — Vertical Distribution

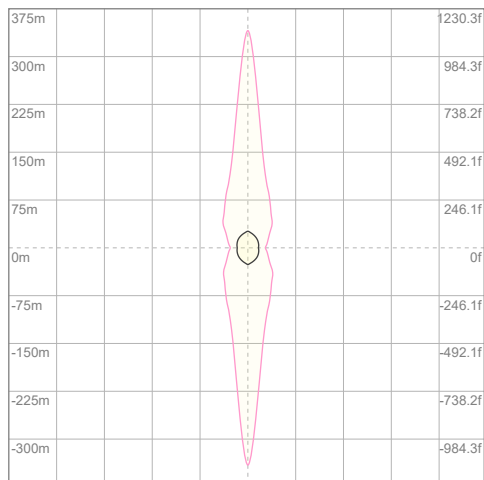
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 19 cd  |
| 20% | 38 cd  |
| 30% | 57 cd  |
| 40% | 76 cd  |
| 50% | 95 cd  |
| 60% | 113 cd |
| 70% | 132 cd |
| 80% | 151 cd |
| 90% | 170 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 189 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 56.7m lx |
| 5%  | 94.5m lx |
| 10% | 189 lx   |
| 30% | 0.567 lx |
| 50% | 0.945 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.89 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Full Power – 8 HR

## Report Summary

### Output

Total Lumens: 467 lm  
Peak Intensity: 123 cd  
Illuminance @ 5m: 5 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.8°  
Vertical Beam Angle (50%): 138.1°  
Horizontal Field Angle (10%): 161.8°  
Vertical Field Angle (10%): 233.7°  
Horizontal Cutoff Angle (3%): 175.1°  
Vertical Cutoff Angle (3%): 281.7°

### Conditions

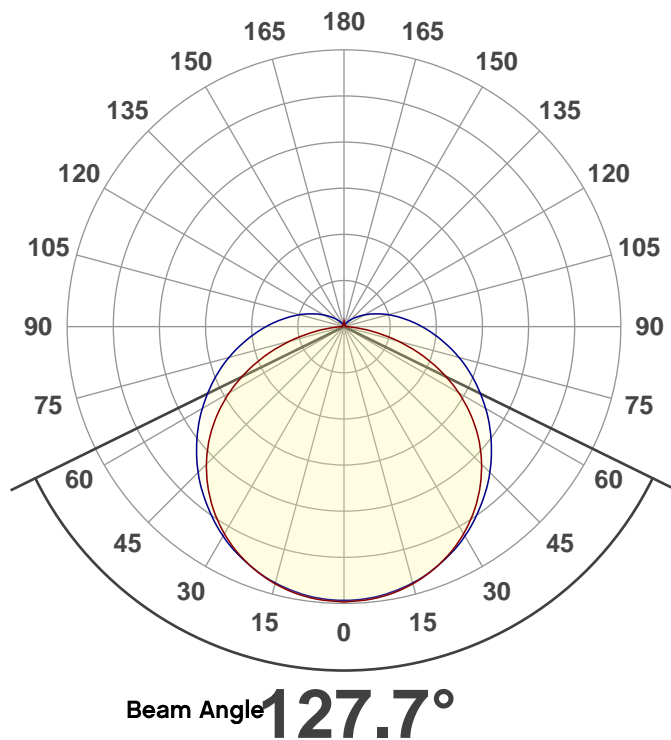
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



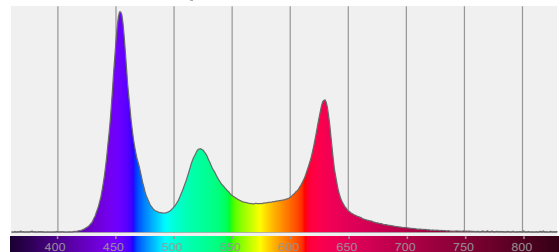
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

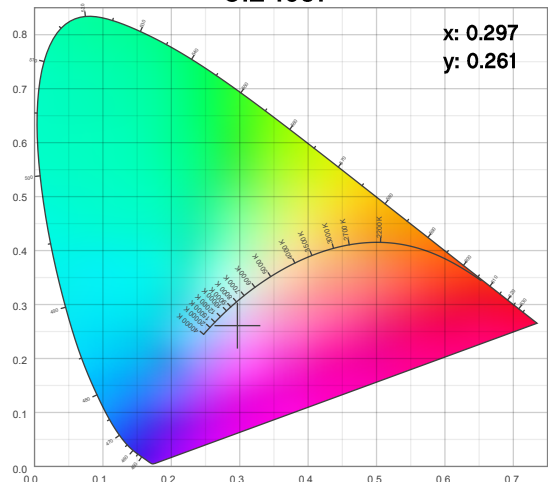
### Angular Beam Distribution



### Spectral Distribution



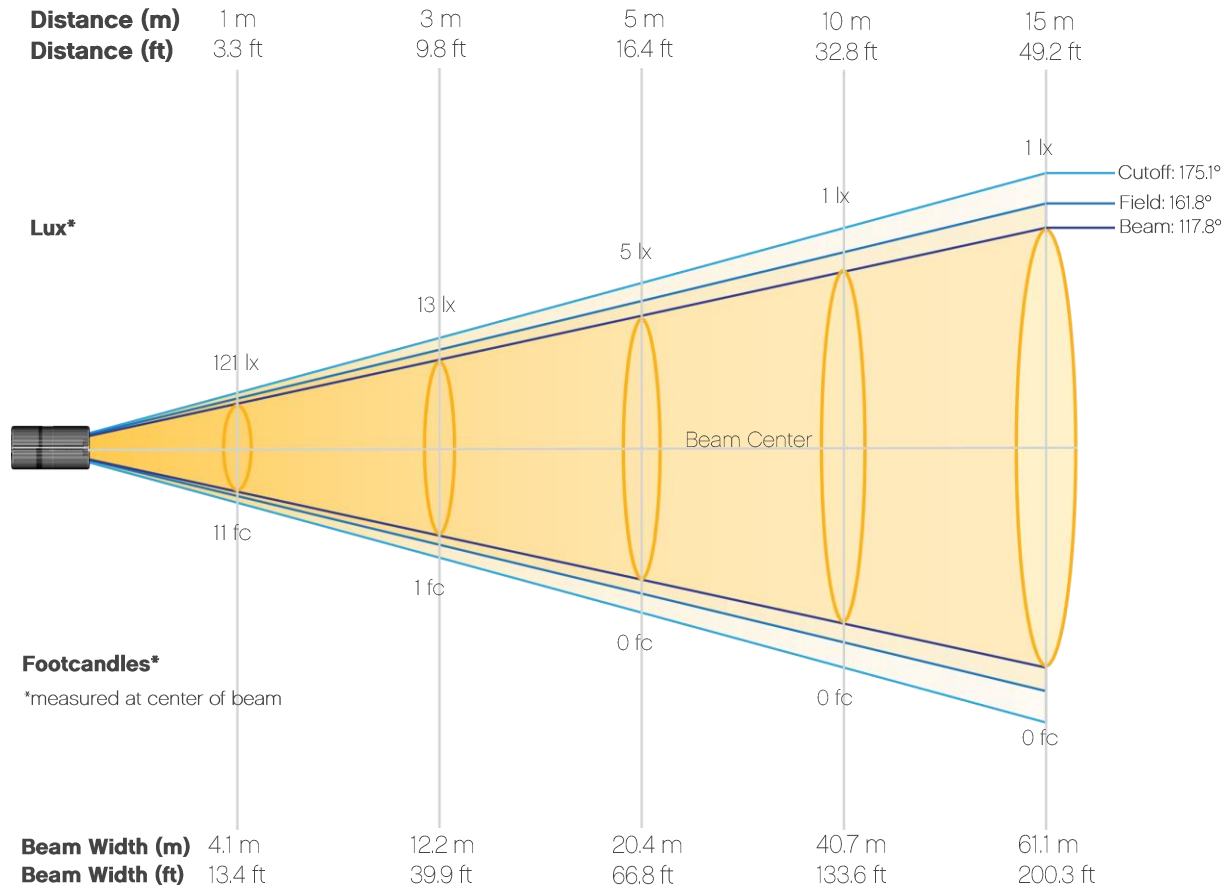
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Full Power – 8 HR

## Beam Details



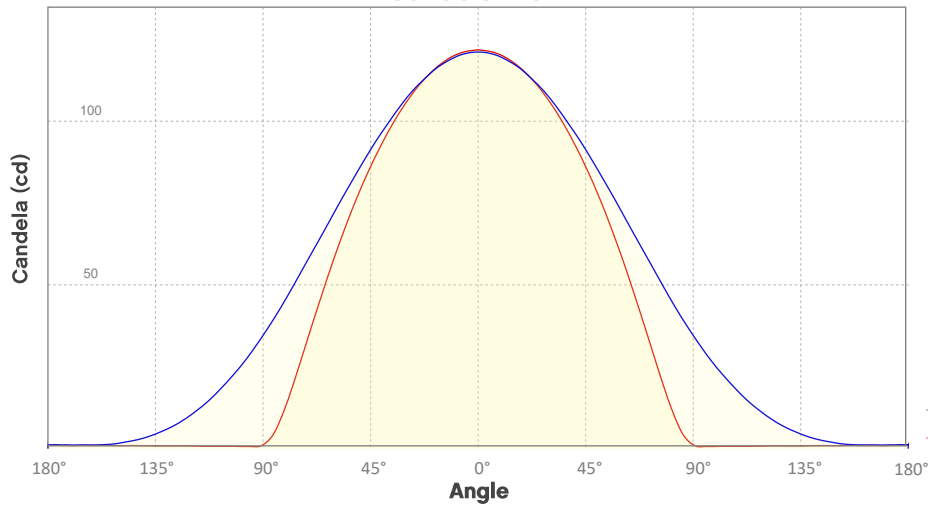
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 121           | 30            | 13            | 8             | 5             | 3             | 2             | 2             | 1             | 1             |
| <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             | 1             | 1             | 1             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 11            | 3             | 1             | 1             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Full Power – 8 HR

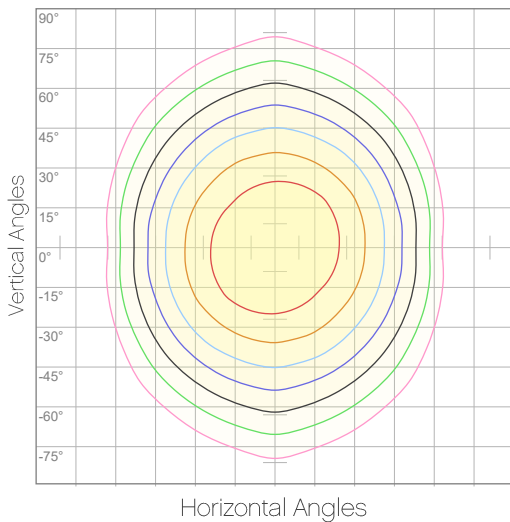
## Candela Plot



Beam Angle (50%): 127.7°  
 Field Angle (10%): 202.2°  
 Cutoff Angle (3%): 241.3°

— Horizontal Distribution  
 — Vertical Distribution

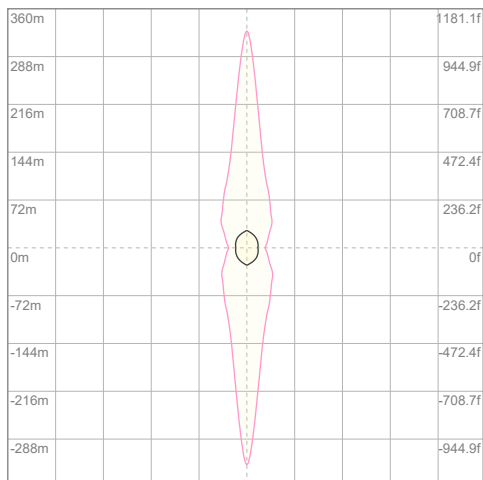
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 12 cd  |
| 20% | 24 cd  |
| 30% | 36 cd  |
| 40% | 49 cd  |
| 50% | 61 cd  |
| 60% | 73 cd  |
| 70% | 85 cd  |
| 80% | 97 cd  |
| 90% | 109 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 121 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 36.4m lx |
| 5%  | 60.7m lx |
| 10% | 0.121 lx |
| 30% | 0.364 lx |
| 50% | 0.607 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.21 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Full Power – 12 HR

## Report Summary

### Output

Total Lumens: 277 lm  
Peak Intensity: 72.9 cd  
Illuminance @ 5m: 3 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 138.1°  
Horizontal Field Angle (10%): 161.8°  
Vertical Field Angle (10%): 233.7°  
Horizontal Cutoff Angle (3%): 174.8°  
Vertical Cutoff Angle (3%): 281.8°

### Conditions

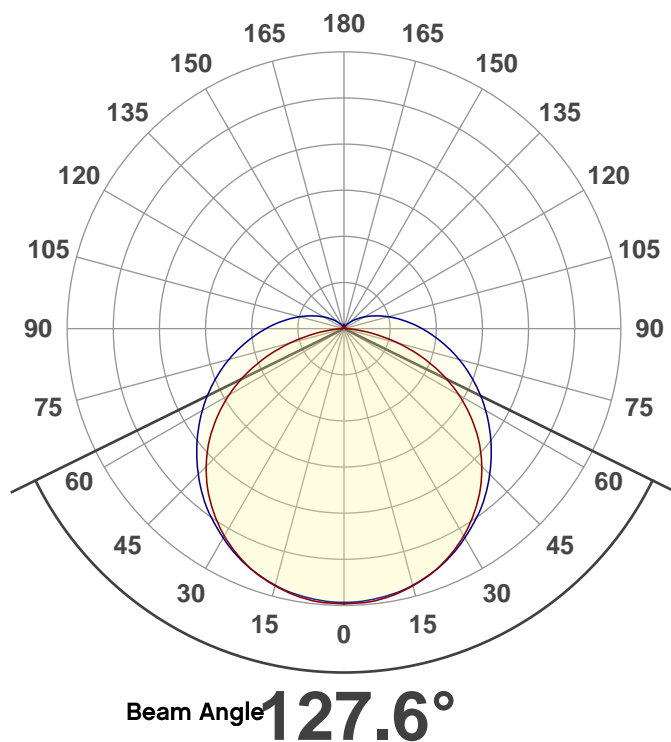
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



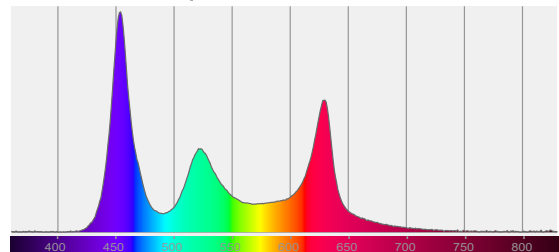
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

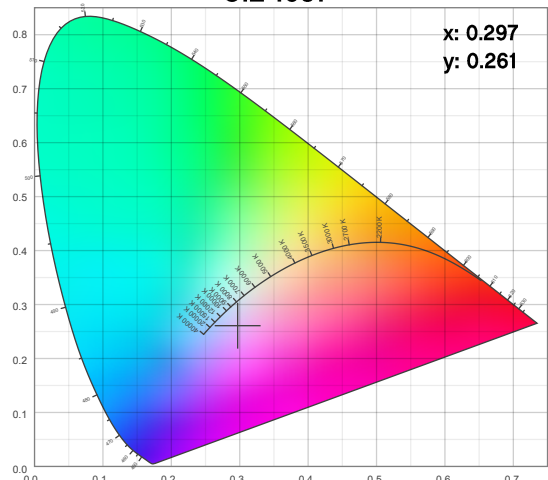
### Angular Beam Distribution



### Spectral Distribution



### CIE 1931

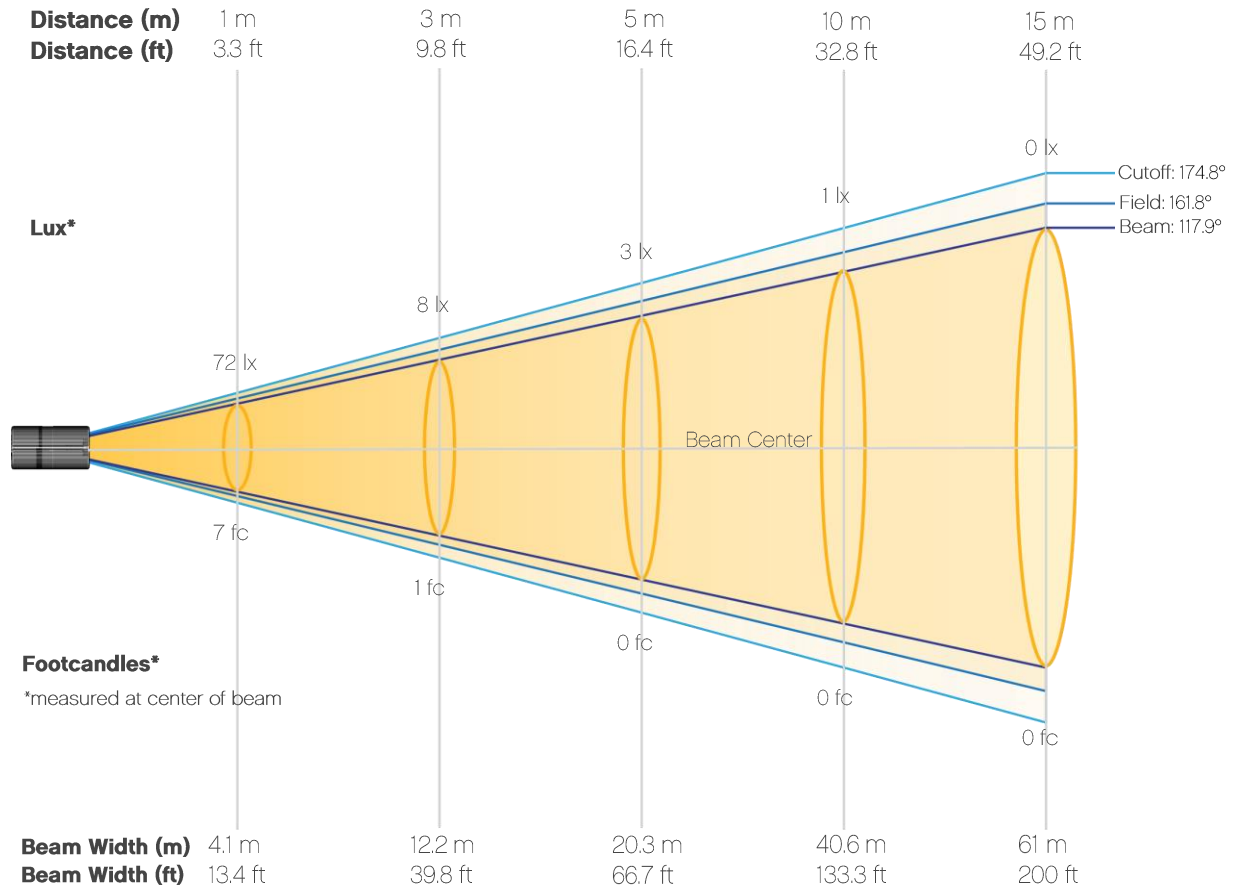




# Photometric Report

Well STX 180: Standard Optics – Full Power – 12 HR

## Beam Details



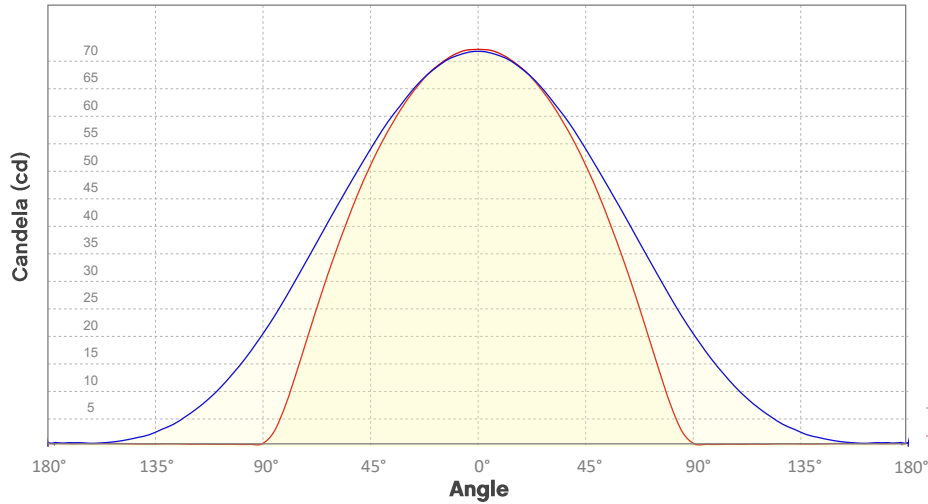
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 72            | 18            | 8             | 5             | 3             | 2             | 1             | 1             | 1             | 1             |
| <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             | 1             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 7             | 2             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Full Power – 12 HR

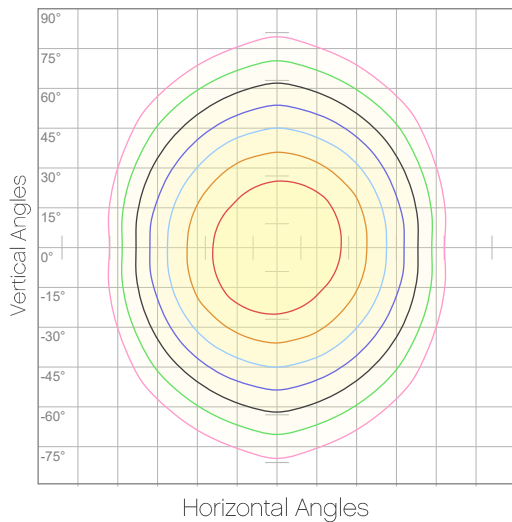
## Candela Plot



Beam Angle (50%): 127.6°  
Field Angle (10%): 202.2°  
Cutoff Angle (3%): 241.3°

— Horizontal Distribution  
— Vertical Distribution

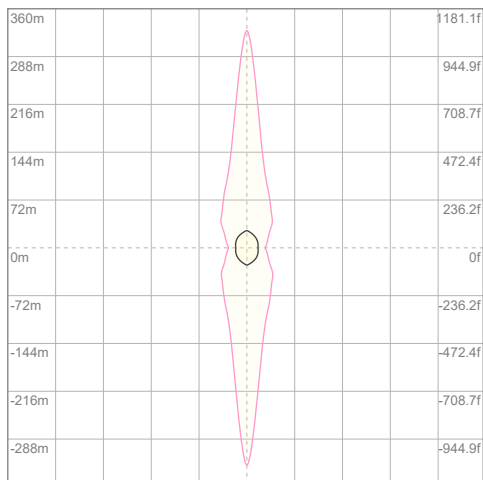
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 7 cd  |
| 20% | 14 cd |
| 30% | 22 cd |
| 40% | 29 cd |
| 50% | 36 cd |
| 60% | 43 cd |
| 70% | 50 cd |
| 80% | 58 cd |
| 90% | 65 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 72 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 21.6m lx |
| 5%  | 36.0m lx |
| 10% | 72.0m lx |
| 30% | 0.216 lx |
| 50% | 0.360 lx |

Conditions:  
Number of c-planes: 8  
Lux at center: 0.720 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Red – 3 HR

## Report Summary

### Output

Total Lumens: 192 lm  
Peak Intensity: 49.8 cd  
Illuminance @ 5m: 2 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 138.8°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 234.4°  
Horizontal Cutoff Angle (3%): 175.1°  
Vertical Cutoff Angle (3%): 282.4°

### Conditions

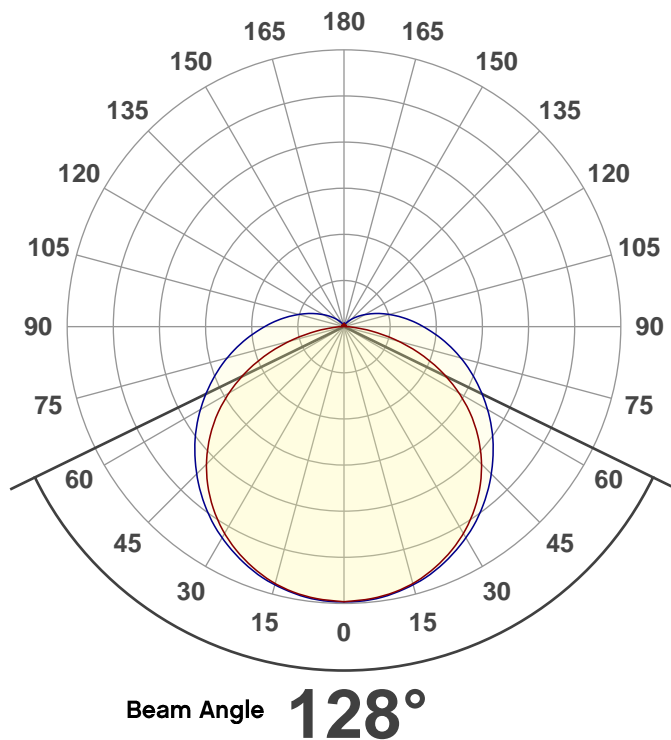
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



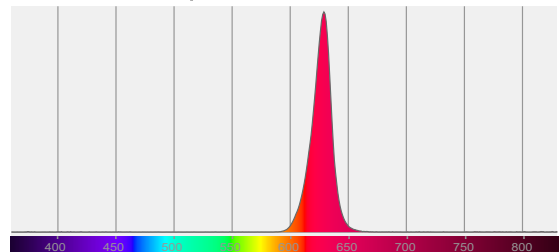
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## Overall Measurement

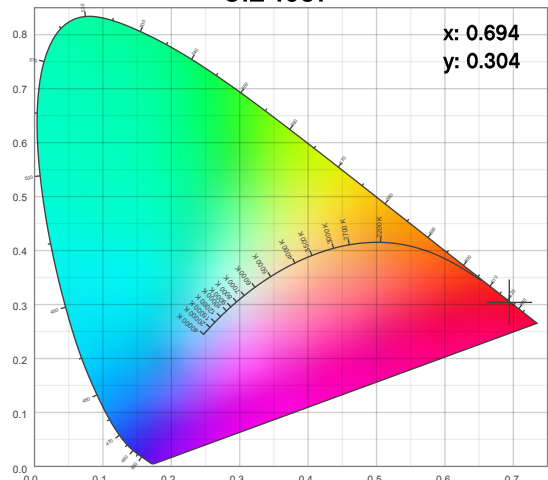
Angular Beam Distribution



Spectral Distribution



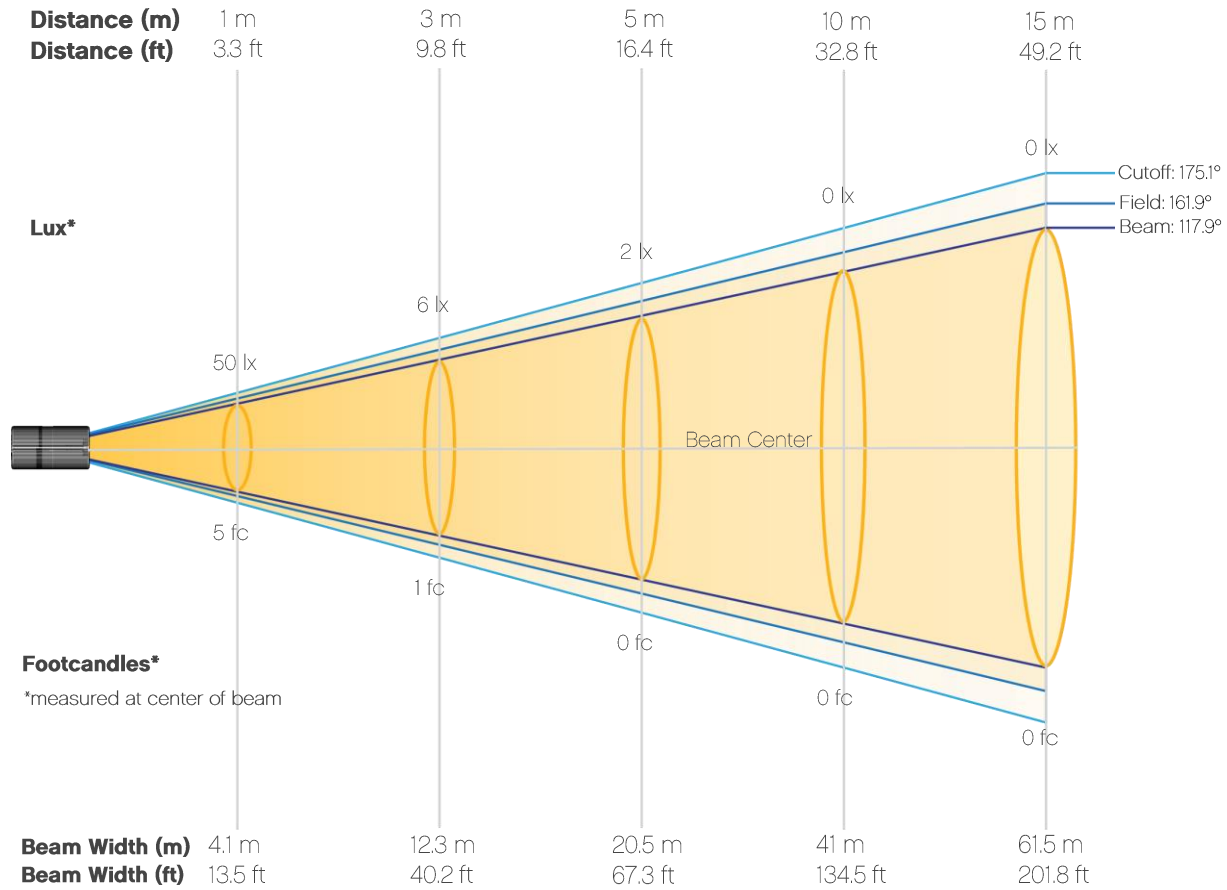
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Red – 3 HR

## Beam Details



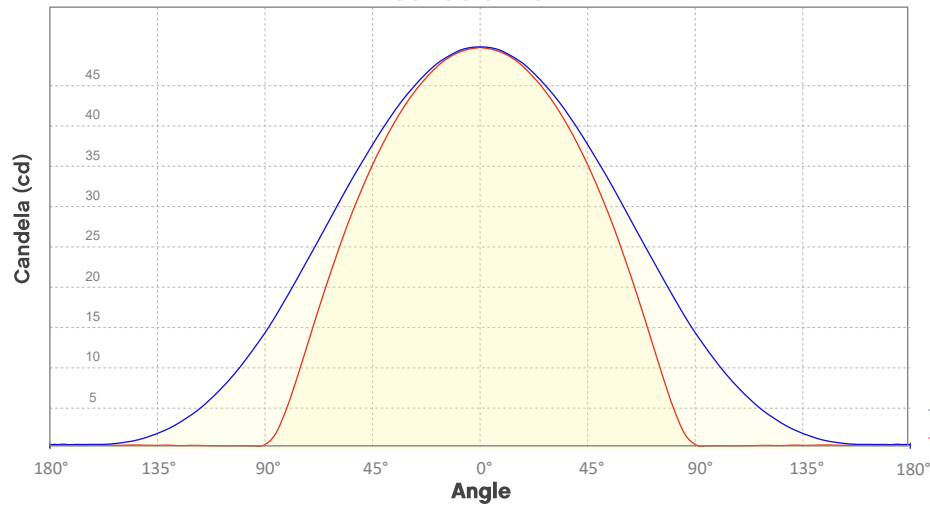
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 50            | 12            | 6             | 3             | 2             | 1             | 1             | 1             | 1             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 5             | 1             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Red – 3 HR

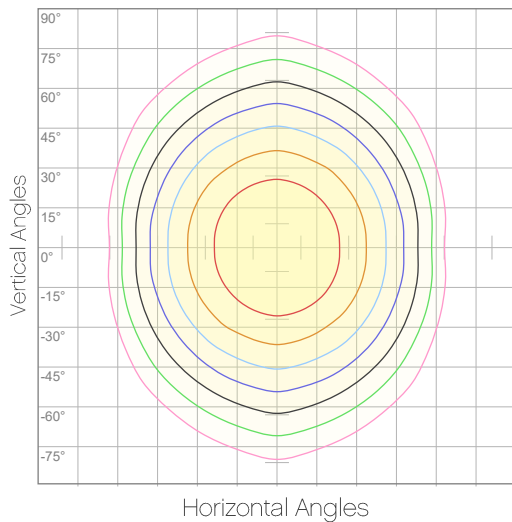
## Candela Plot



Beam Angle (50%): 128°  
Field Angle (10%): 202.7°  
Cutoff Angle (3%): 242°

— Horizontal Distribution  
— Vertical Distribution

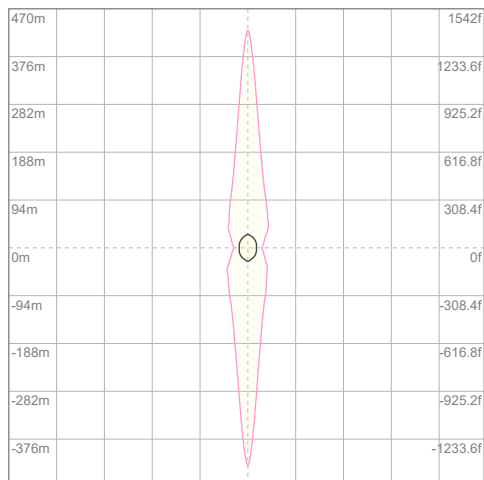
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 5 cd  |
| 20% | 10 cd |
| 30% | 15 cd |
| 40% | 20 cd |
| 50% | 25 cd |
| 60% | 30 cd |
| 70% | 35 cd |
| 80% | 40 cd |
| 90% | 45 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 50 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 14.9m lx |
| 5%  | 24.9m lx |
| 10% | 49.7m lx |
| 30% | 0.149 lx |
| 50% | 0.249 lx |

Conditions:  
Number of c-planes: 8  
Lux at center: 0.497 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Red – 5 HR

## Report Summary

### Output

Total Lumens: 187 lm  
Peak Intensity: 48.2 cd  
Illuminance @ 5m: 2 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 138.7°  
Horizontal Field Angle (10%): 162.2°  
Vertical Field Angle (10%): 235.1°  
Horizontal Cutoff Angle (3%): 175.7°  
Vertical Cutoff Angle (3%): 284.1°

### Conditions

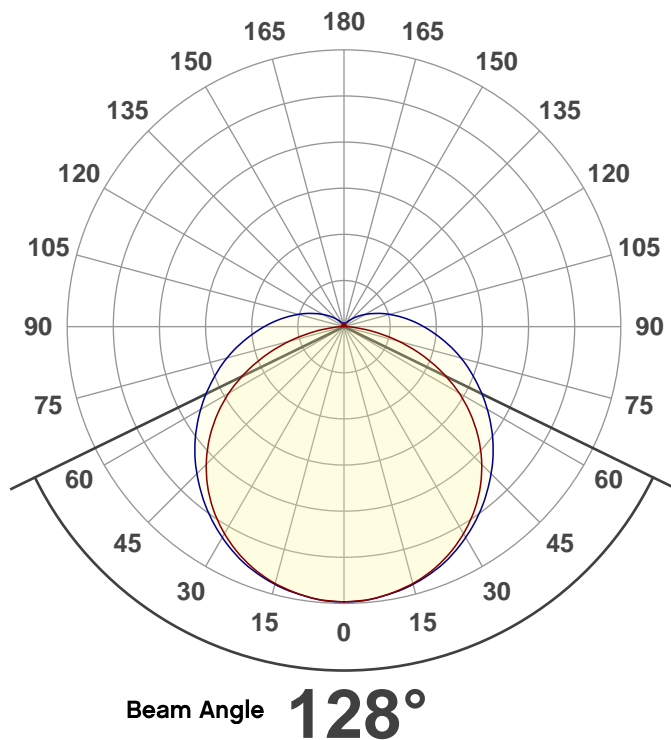
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



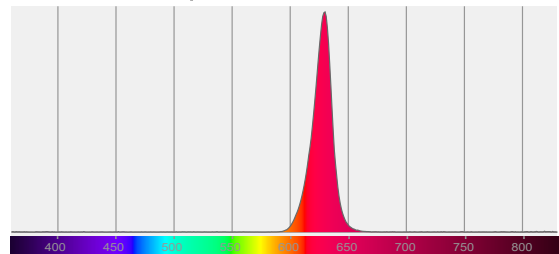
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

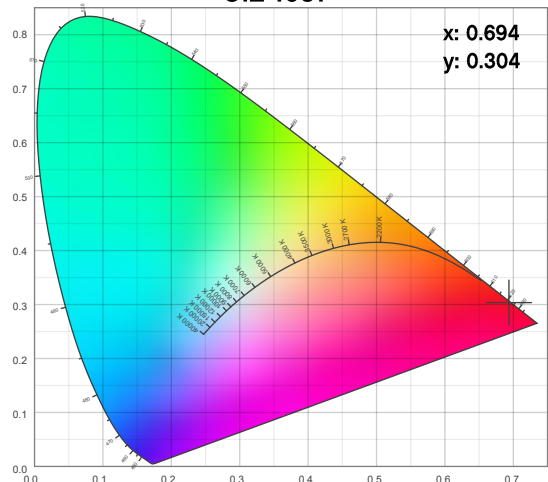
Angular Beam Distribution



Spectral Distribution



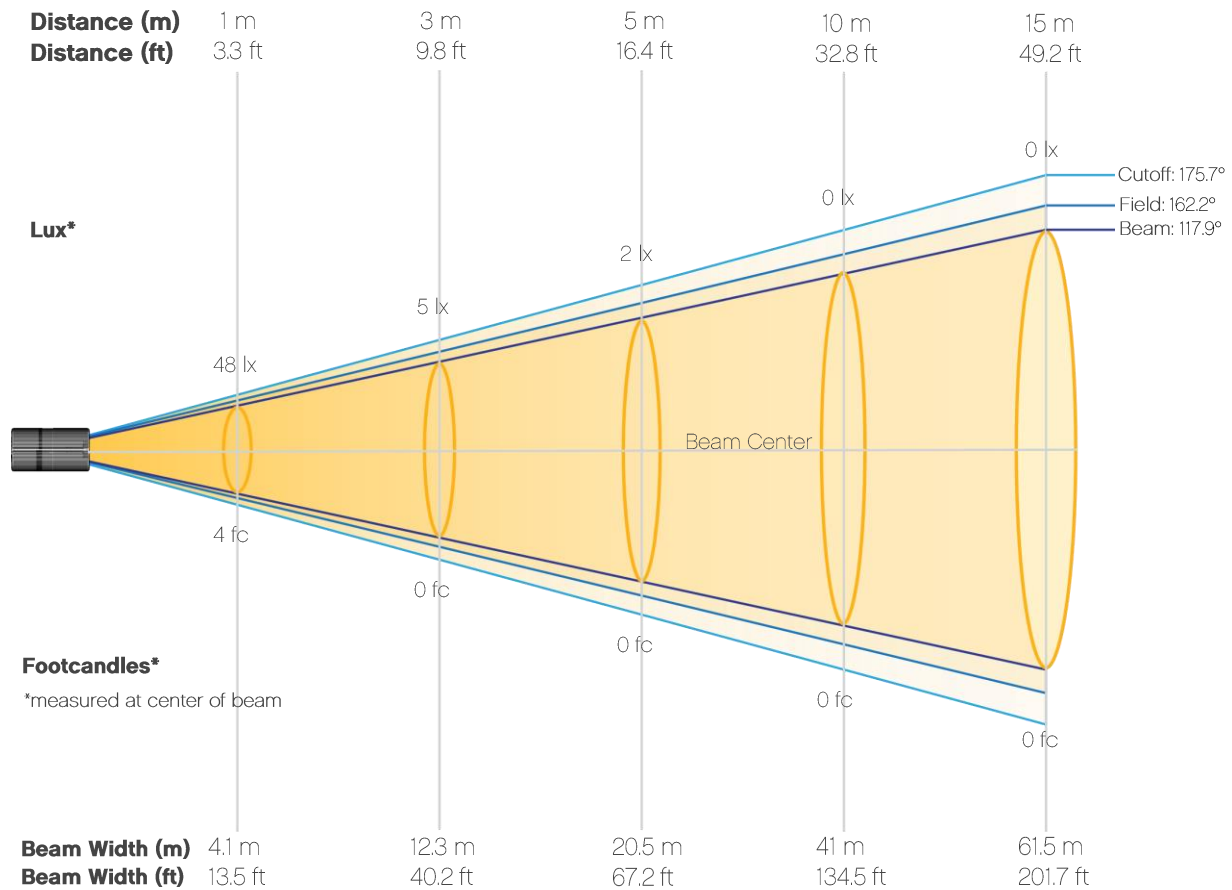
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Red – 5 HR

## Beam Details



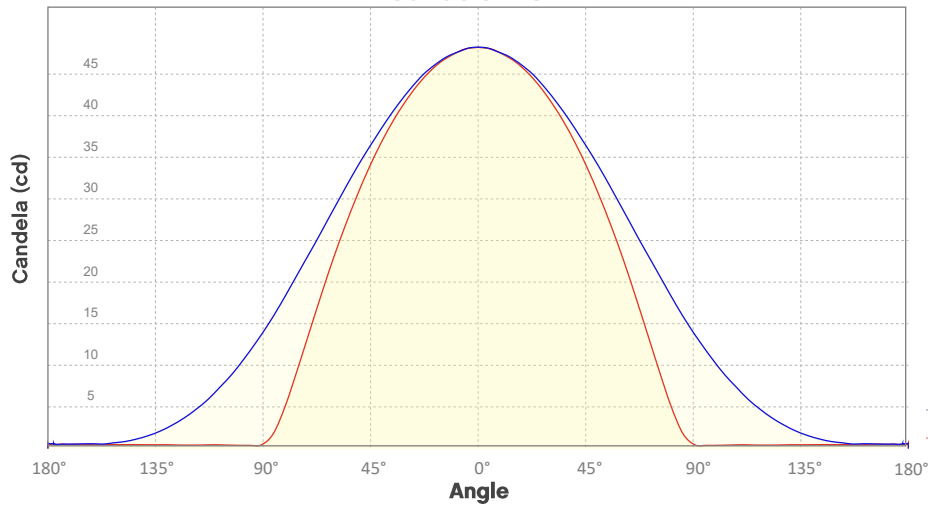
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 48            | 12            | 5             | 3             | 2             | 1             | 1             | 1             | 1             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 4             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Red – 5 HR

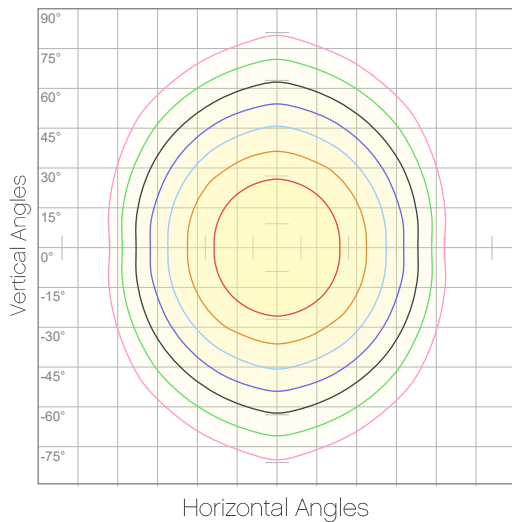
## Candela Plot



Beam Angle (50%): 128°  
Field Angle (10%): 203.1°  
Cutoff Angle (3%): 243°

— Horizontal Distribution  
— Vertical Distribution

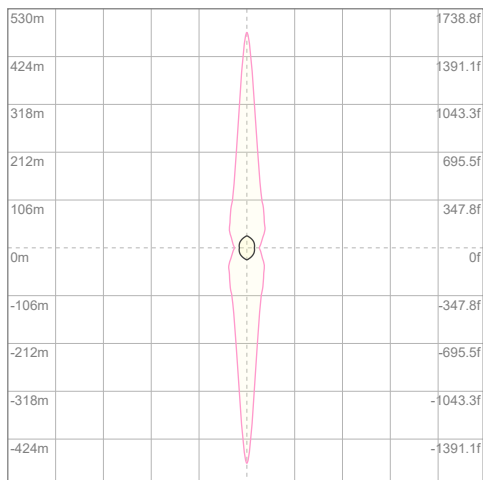
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 5 cd  |
| 20% | 10 cd |
| 30% | 14 cd |
| 40% | 19 cd |
| 50% | 24 cd |
| 60% | 29 cd |
| 70% | 34 cd |
| 80% | 39 cd |
| 90% | 43 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 48 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 14.5m lx |
| 5%  | 24.1m lx |
| 10% | 48.2m lx |
| 30% | 0.145 lx |
| 50% | 0.241 lx |

Conditions:  
Number of c-planes: 8  
Lux at center: 0.482 lx

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

Mounting height: 10 meters / 33 feet



# Photometric Report

Well STX 180: Standard Optics – Red – 8 HR

## Report Summary

### Output

Total Lumens: 184 lm  
Peak Intensity: 47.6 cd  
Illuminance @ 5m: 2 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 118°  
Vertical Beam Angle (50%): 139.1°  
Horizontal Field Angle (10%): 162.1°  
Vertical Field Angle (10%): 234.7°  
Horizontal Cutoff Angle (3%): 175.6°  
Vertical Cutoff Angle (3%): 283°

### Conditions

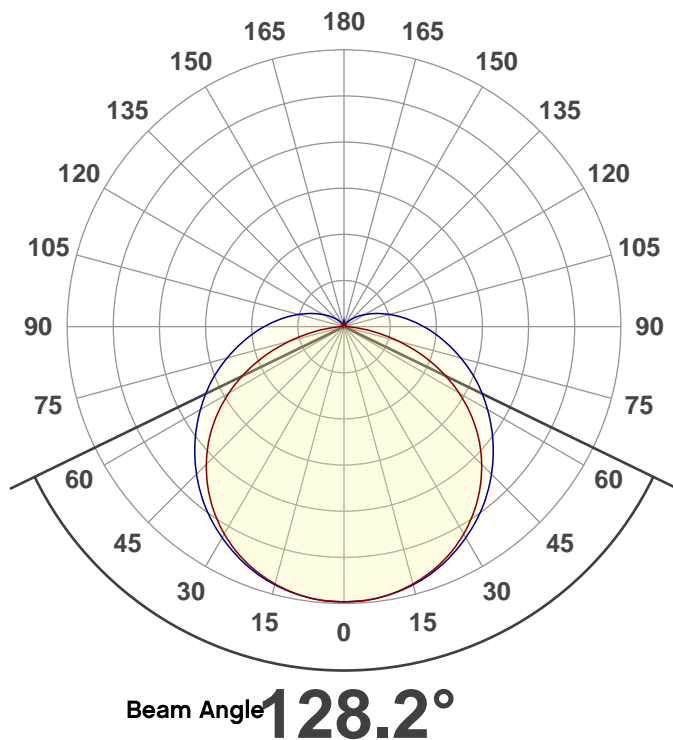
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



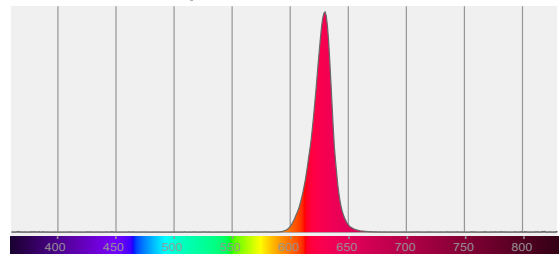
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

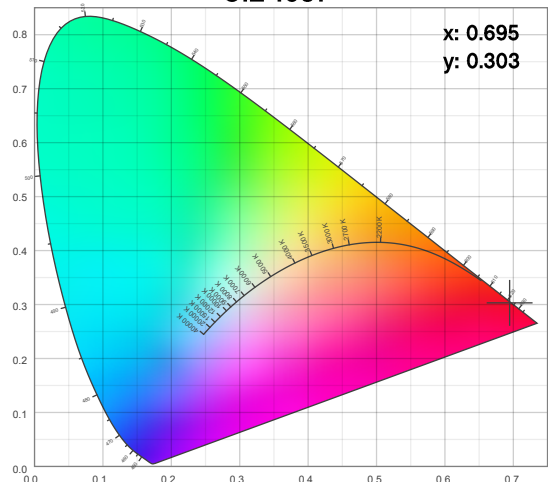
Angular Beam Distribution



Spectral Distribution



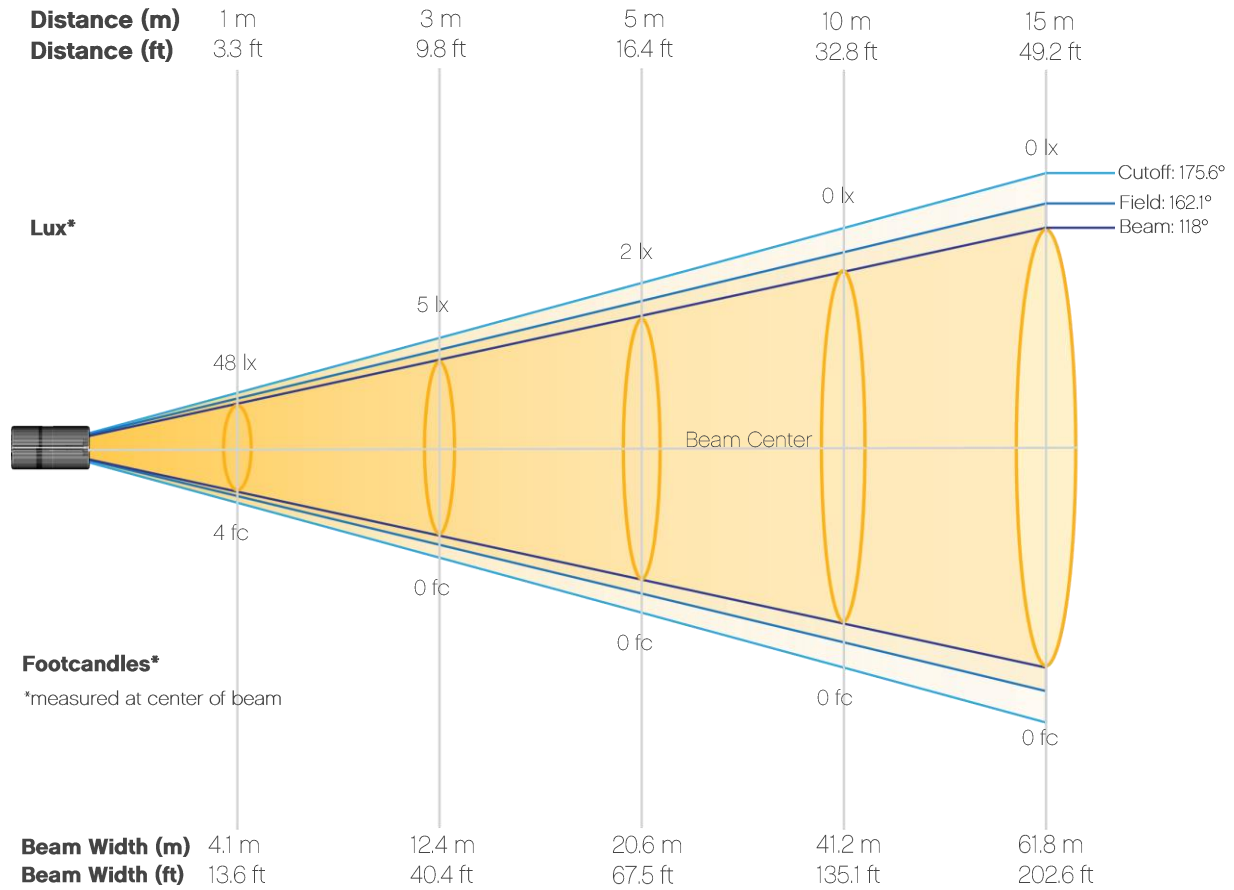
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Red – 8 HR

## Beam Details



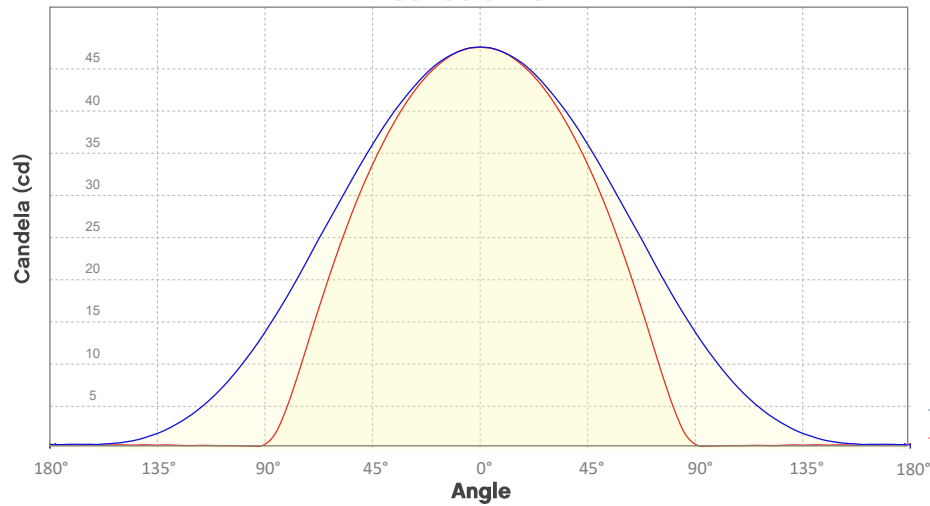
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 48            | 12            | 5             | 3             | 2             | 1             | 1             | 1             | 1             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 4             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Red – 8 HR

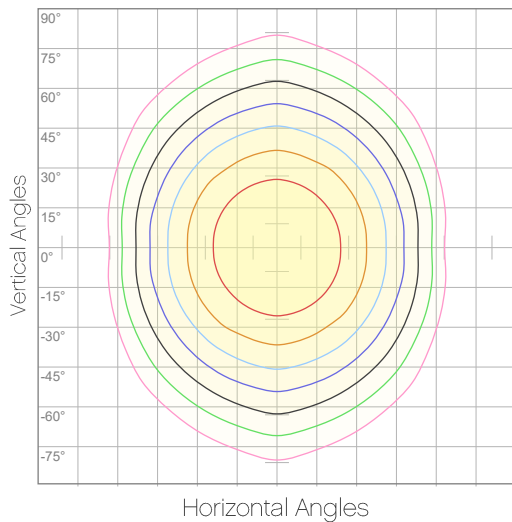
## Candela Plot



Beam Angle (50%): 128.2°  
 Field Angle (10%): 202.9°  
 Cutoff Angle (3%): 242.6°

— Horizontal Distribution  
 — Vertical Distribution

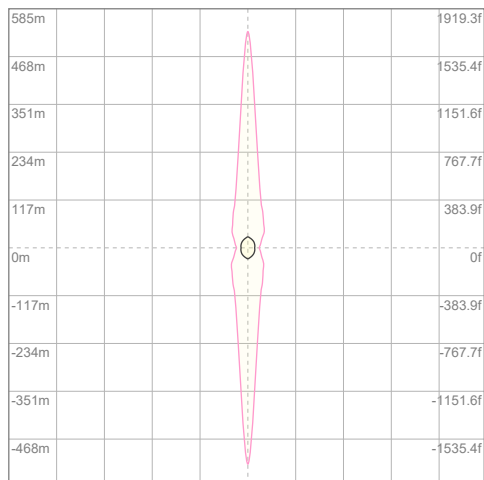
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 5 cd  |
| 20% | 10 cd |
| 30% | 14 cd |
| 40% | 19 cd |
| 50% | 24 cd |
| 60% | 29 cd |
| 70% | 33 cd |
| 80% | 38 cd |
| 90% | 43 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 48 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 14.3m lx |
| 5%  | 23.8m lx |
| 10% | 47.5m lx |
| 30% | 0.143 lx |
| 50% | 0.238 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 0.475 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Red – 12 HR

## Report Summary

### Output

Total Lumens: 184 lm  
Peak Intensity: 47.6 cd  
Illuminance @ 5m: 2 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 138.8°  
Horizontal Field Angle (10%): 162.1°  
Vertical Field Angle (10%): 234.6°  
Horizontal Cutoff Angle (3%): 175.3°  
Vertical Cutoff Angle (3%): 283.3°

### Conditions

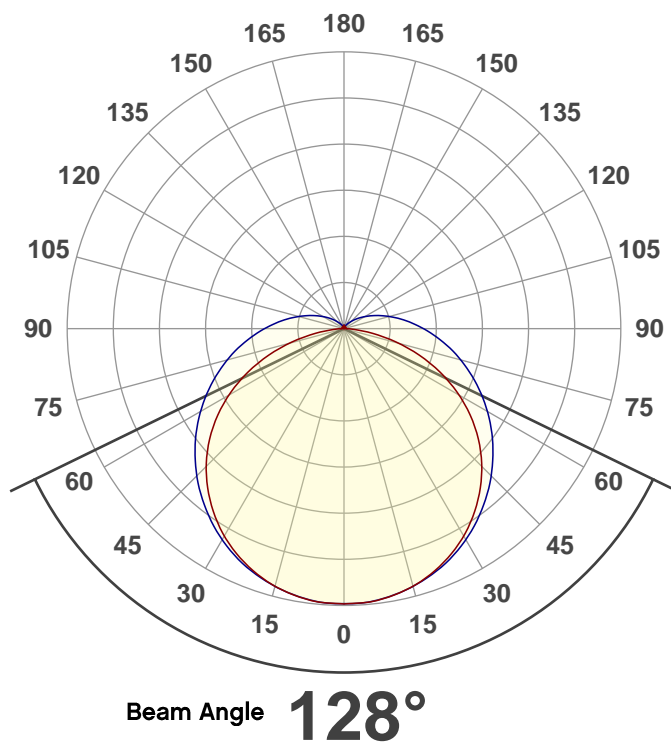
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



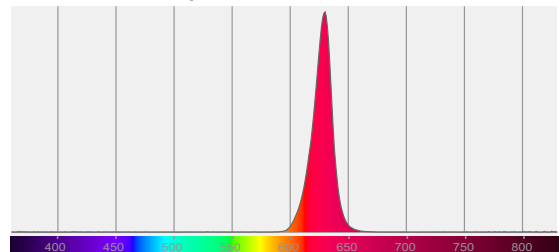
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

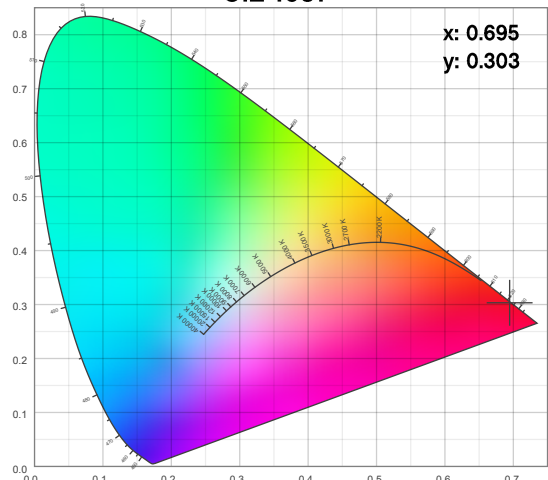
Angular Beam Distribution



Spectral Distribution



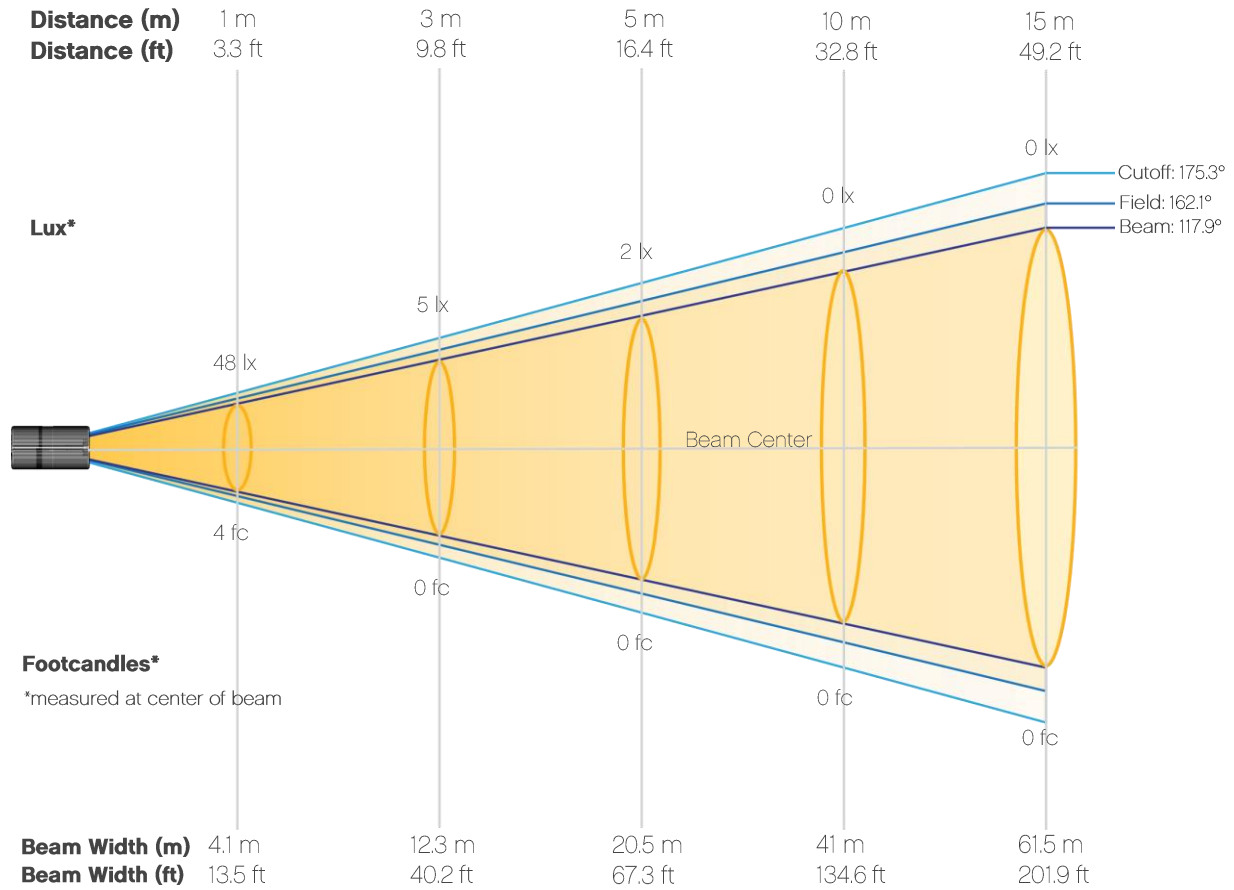
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Red – 12 HR

## Beam Details



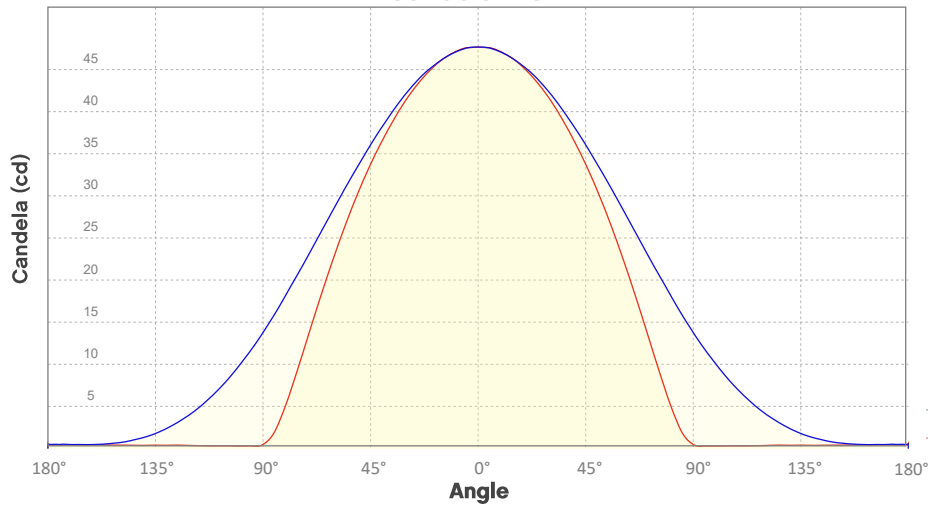
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 48            | 12            | 5             | 3             | 2             | 1             | 1             | 1             | 1             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 4             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Red – 12 HR

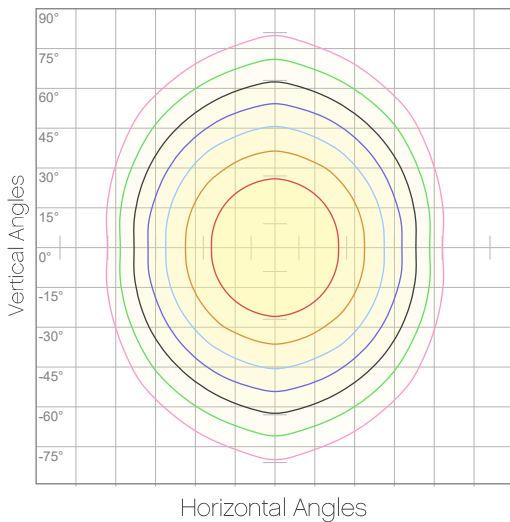
## Candela Plot



Beam Angle (50%): 128°  
 Field Angle (10%): 202.8°  
 Cutoff Angle (3%): 242.1°

— Horizontal Distribution  
 — Vertical Distribution

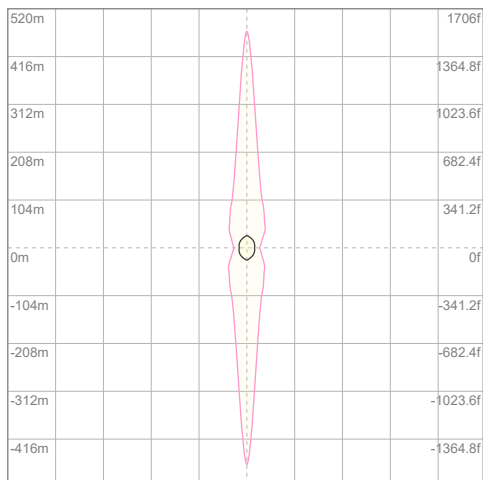
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 5 cd  |
| 20% | 10 cd |
| 30% | 14 cd |
| 40% | 19 cd |
| 50% | 24 cd |
| 60% | 29 cd |
| 70% | 33 cd |
| 80% | 38 cd |
| 90% | 43 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 48 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 14.3m lx |
| 5%  | 23.8m lx |
| 10% | 47.6m lx |
| 30% | 0.143 lx |
| 50% | 0.238 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 0.476 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Green – 3 HR

## Report Summary

### Output

Total Lumens: 187 lm  
Peak Intensity: 48.2 cd  
Illuminance @ 5m: 2 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 118.5°  
Vertical Beam Angle (50%): 138.9°  
Horizontal Field Angle (10%): 162.2°  
Vertical Field Angle (10%): 235.7°  
Horizontal Cutoff Angle (3%): 175.3°  
Vertical Cutoff Angle (3%): 284.4°

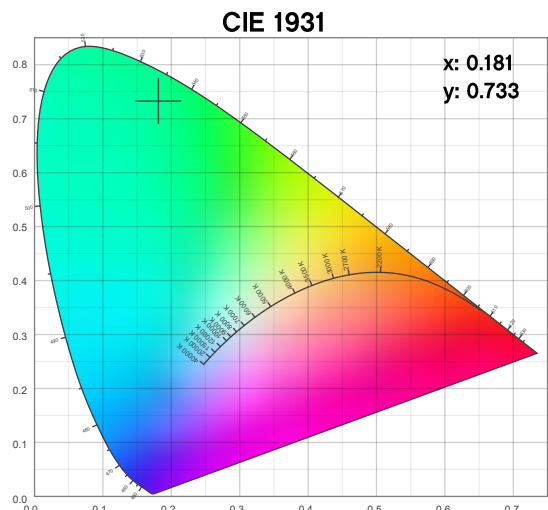
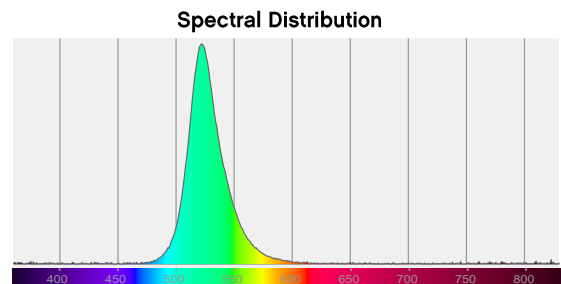
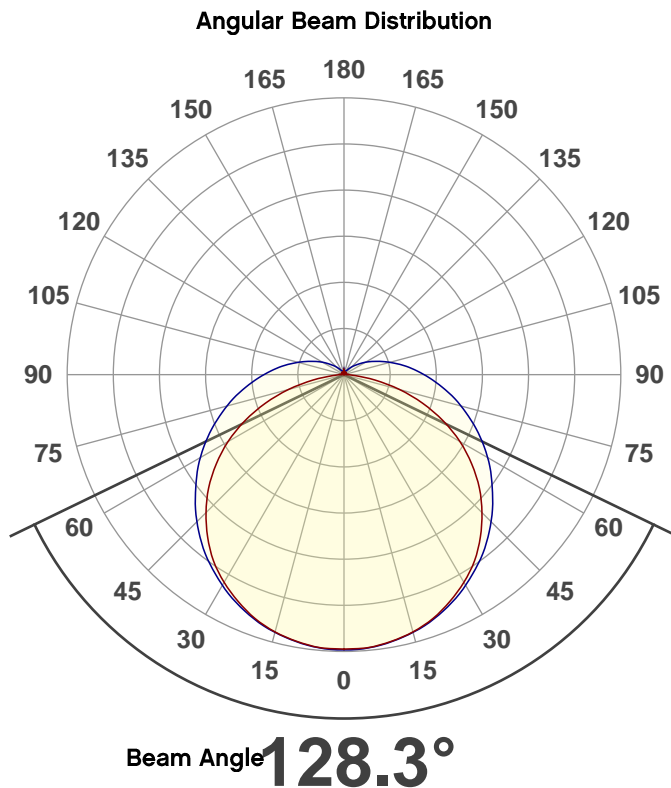
### Conditions

AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



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 11/8/2019 to LM-63-2002 Standards.

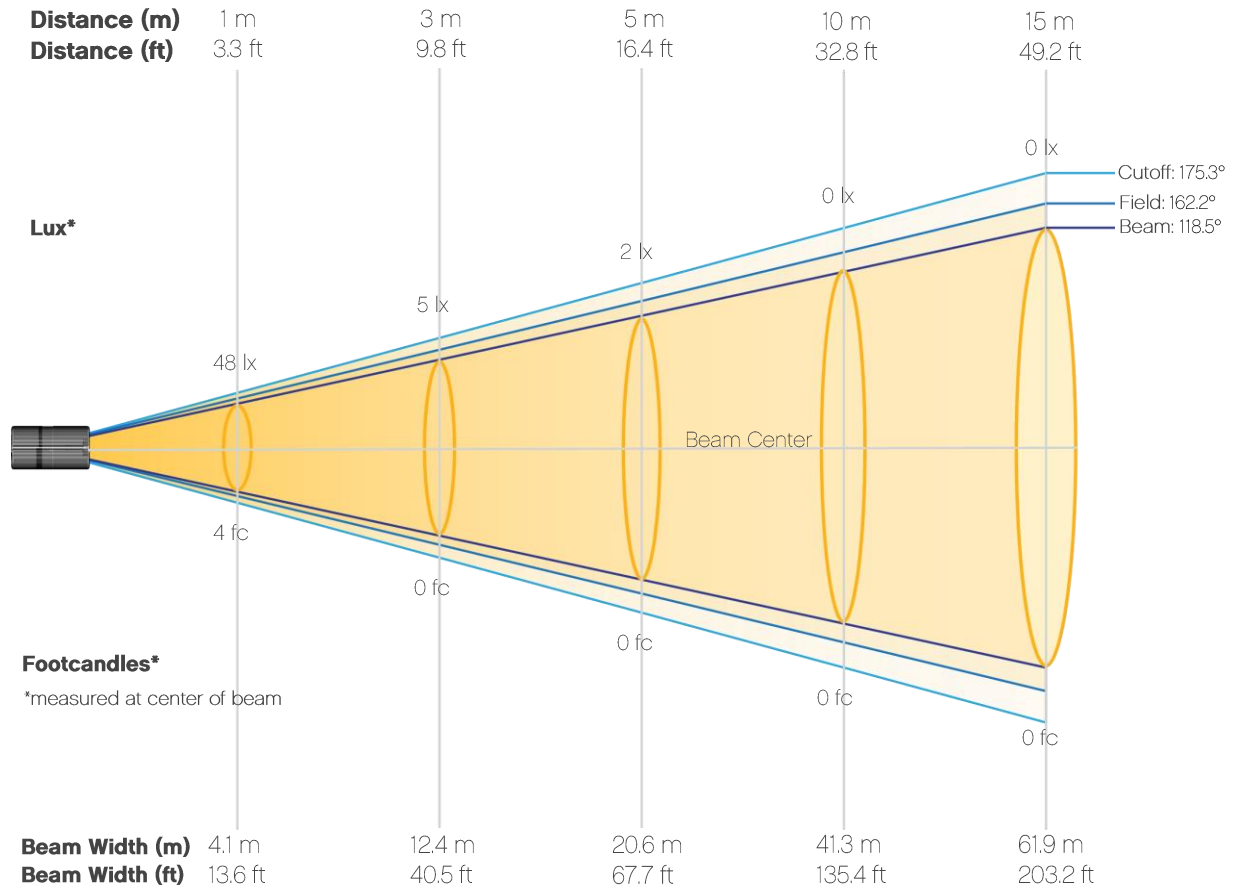
## Overall Measurement



# Photometric Report

Well STX 180: Standard Optics – Green – 3 HR

## Beam Details



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

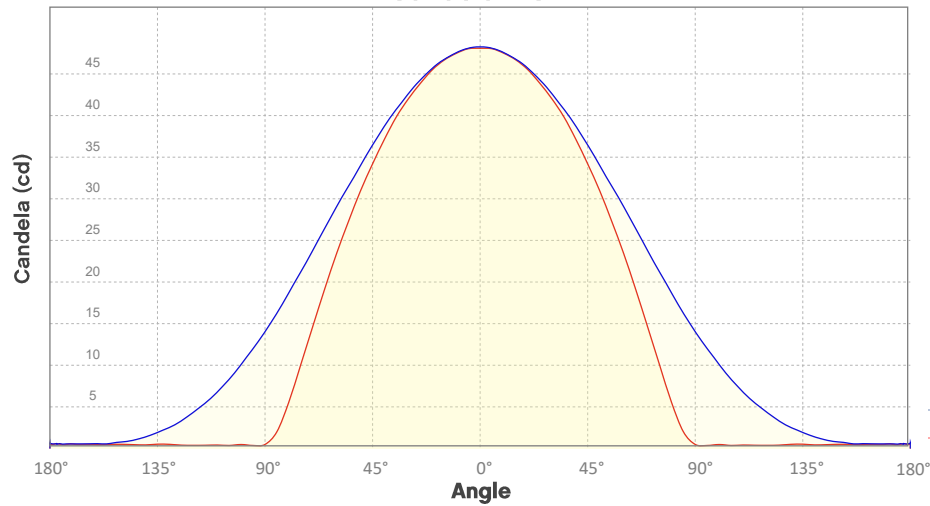
|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 48            | 12            | 5             | 3             | 2             | 1             | 1             | 1             | 1             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 4             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |



# Photometric Report

Well STX 180: Standard Optics – Green – 3 HR

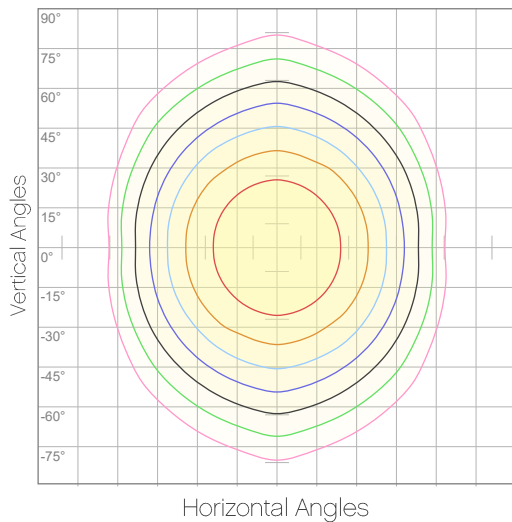
## Candela Plot



Beam Angle (50%): 128.3°  
 Field Angle (10%): 203.6°  
 Cutoff Angle (3%): 244.2°

— Horizontal Distribution  
 — Vertical Distribution

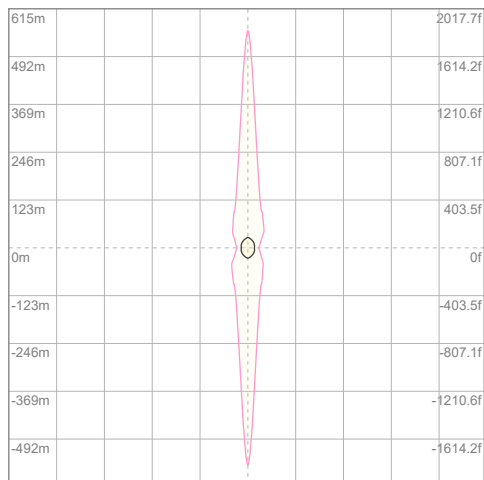
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 5 cd  |
| 20% | 10 cd |
| 30% | 14 cd |
| 40% | 19 cd |
| 50% | 24 cd |
| 60% | 29 cd |
| 70% | 34 cd |
| 80% | 39 cd |
| 90% | 43 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 48 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 14.4m lx |
| 5%  | 24.1m lx |
| 10% | 48.2m lx |
| 30% | 0.144 lx |
| 50% | 0.241 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 0.482 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Green – 5 HR

## Report Summary

### Output

Total Lumens: 184 lm  
Peak Intensity: 47.9 cd  
Illuminance @ 5m: 2 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 138.5°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 234.2°  
Horizontal Cutoff Angle (3%): 174.7°  
Vertical Cutoff Angle (3%): 281.1°

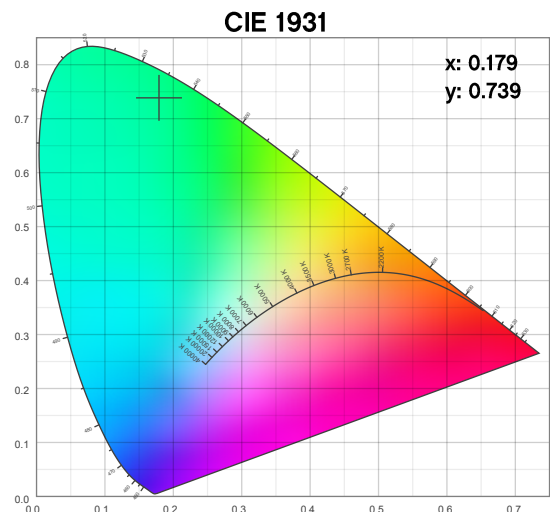
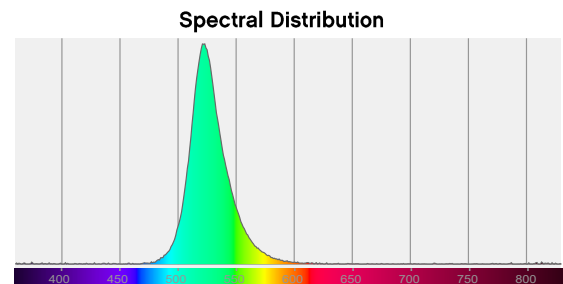
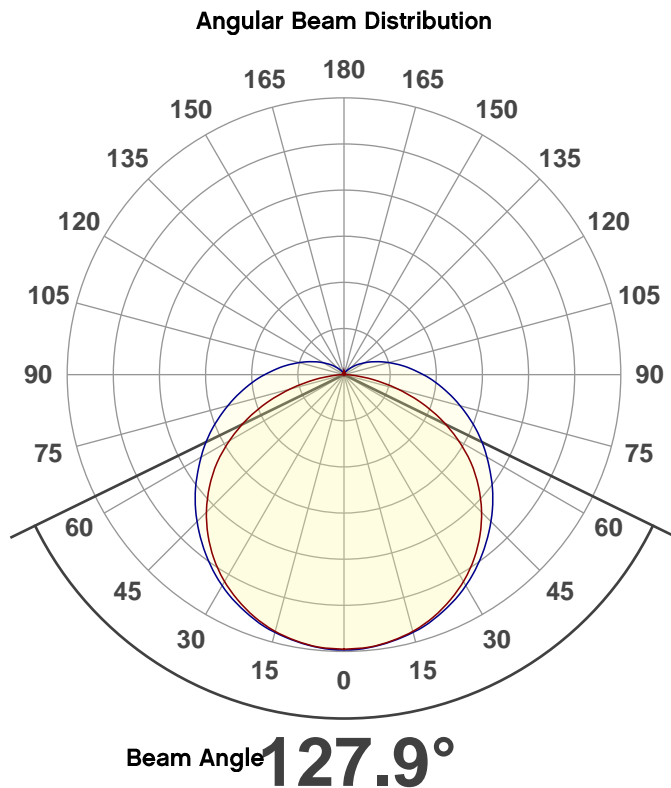
### Conditions

AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



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 11/8/2019 to LM-63-2002 Standards.

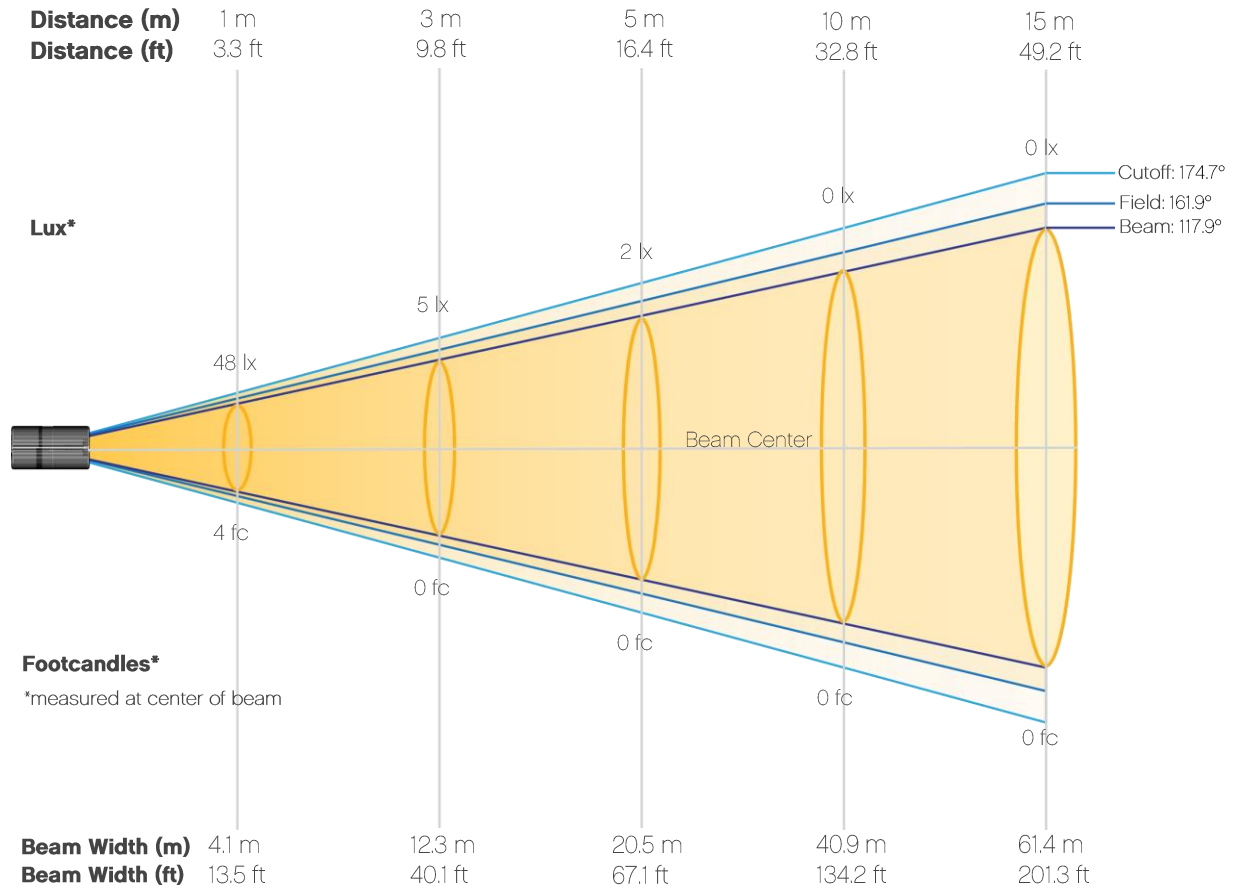
## Overall Measurement



# Photometric Report

Well STX 180: Standard Optics – Green – 5 HR

## Beam Details



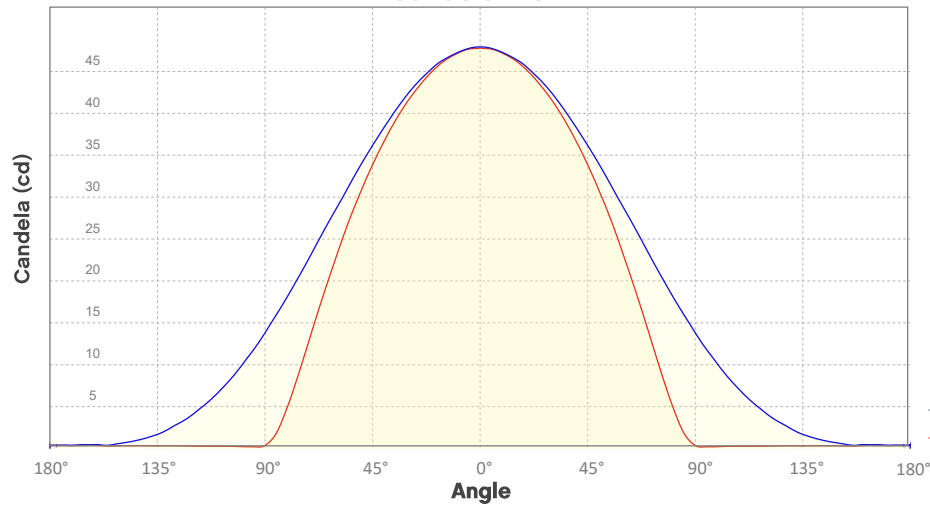
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 48            | 12            | 5             | 3             | 2             | 1             | 1             | 1             | 1             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 4             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Green – 5 HR

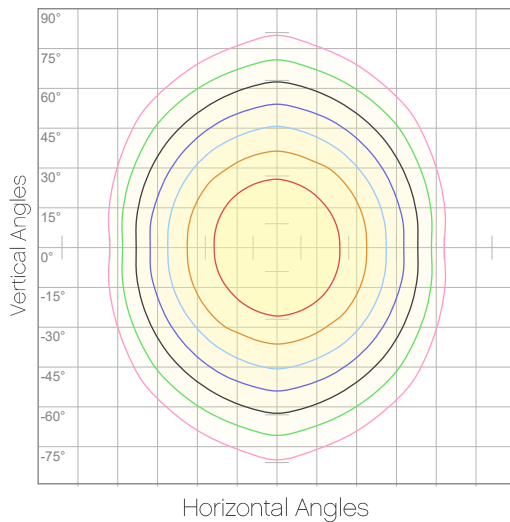
## Candela Plot



Beam Angle (50%): 127.9°  
Field Angle (10%): 202.5°  
Cutoff Angle (3%): 240.7°

— Horizontal Distribution  
— Vertical Distribution

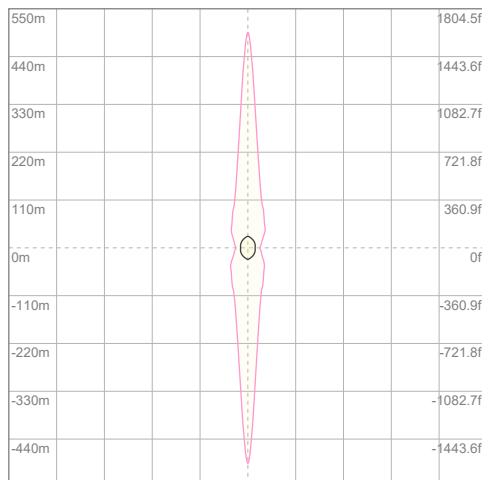
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 5 cd  |
| 20% | 10 cd |
| 30% | 14 cd |
| 40% | 19 cd |
| 50% | 24 cd |
| 60% | 29 cd |
| 70% | 33 cd |
| 80% | 38 cd |
| 90% | 43 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 48 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 14.3m lx |
| 5%  | 23.9m lx |
| 10% | 47.8m lx |
| 30% | 0.143 lx |
| 50% | 0.239 lx |

Conditions:  
Number of c-planes: 8  
Lux at center: 0.478 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Green – 8 HR

## Report Summary

### Output

Total Lumens: 184 lm  
Peak Intensity: 47.7 cd  
Illuminance @ 5m: 2 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 118.2°  
Vertical Beam Angle (50%): 138.6°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 234.3°  
Horizontal Cutoff Angle (3%): 174.7°  
Vertical Cutoff Angle (3%): 280.8°

### Conditions

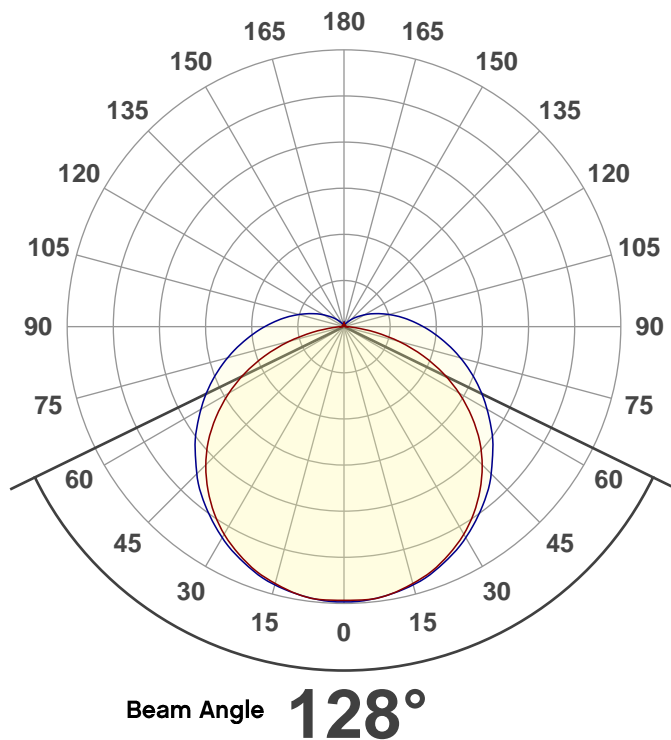
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



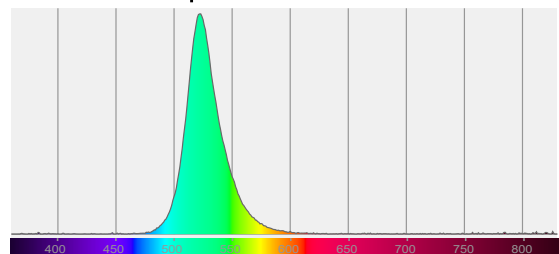
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

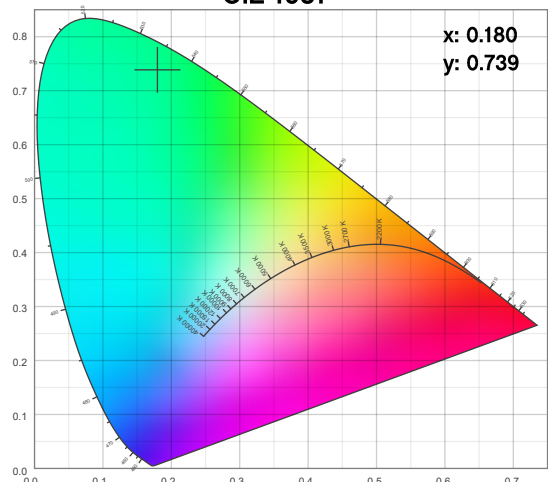
Angular Beam Distribution



Spectral Distribution



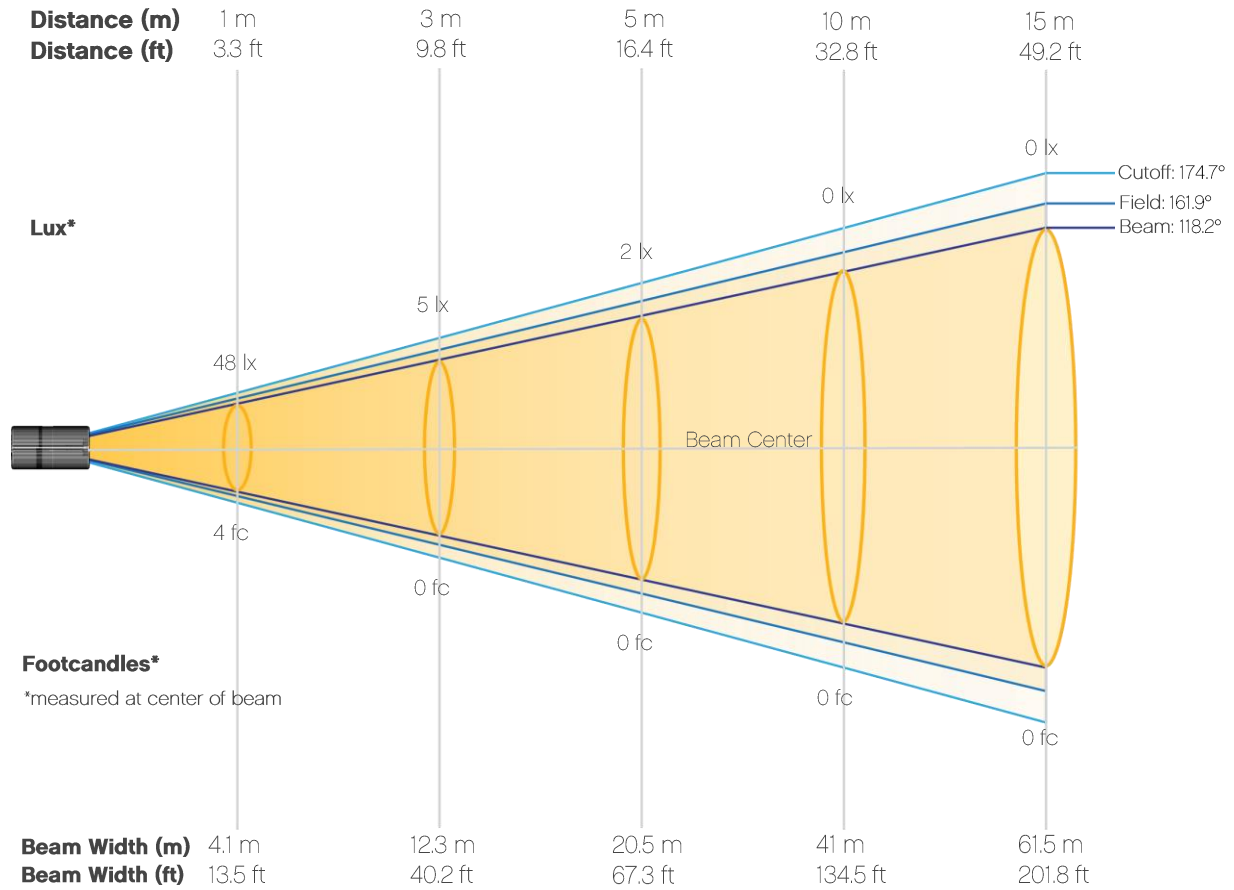
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Green – 8 HR

## Beam Details



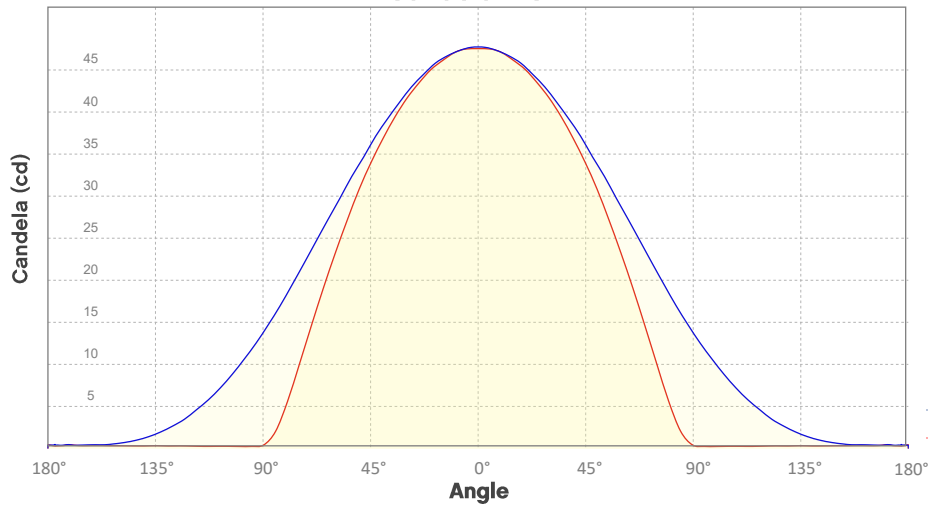
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 48            | 12            | 5             | 3             | 2             | 1             | 1             | 1             | 1             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 4             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Green – 8 HR

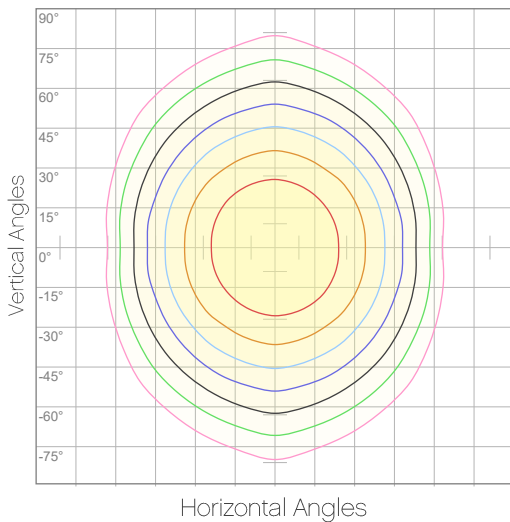
## Candela Plot



Beam Angle (50%): 128°  
Field Angle (10%): 202.5°  
Cutoff Angle (3%): 240.9°

— Horizontal Distribution  
— Vertical Distribution

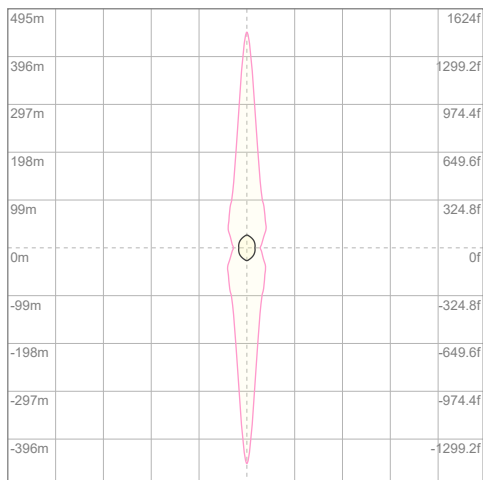
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 5 cd  |
| 20% | 10 cd |
| 30% | 14 cd |
| 40% | 19 cd |
| 50% | 24 cd |
| 60% | 29 cd |
| 70% | 33 cd |
| 80% | 38 cd |
| 90% | 43 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 48 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 14.3m lx |
| 5%  | 23.8m lx |
| 10% | 47.6m lx |
| 30% | 0.143 lx |
| 50% | 0.238 lx |

Conditions:  
Number of c-planes: 8  
Lux at center: 0.476 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Green – 12 HR

## Report Summary

### Output

Total Lumens: 184 lm  
Peak Intensity: 47.8 cd  
Illuminance @ 5m: 2 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 118°  
Vertical Beam Angle (50%): 138.3°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 234.2°  
Horizontal Cutoff Angle (3%): 175°  
Vertical Cutoff Angle (3%): 280.5°

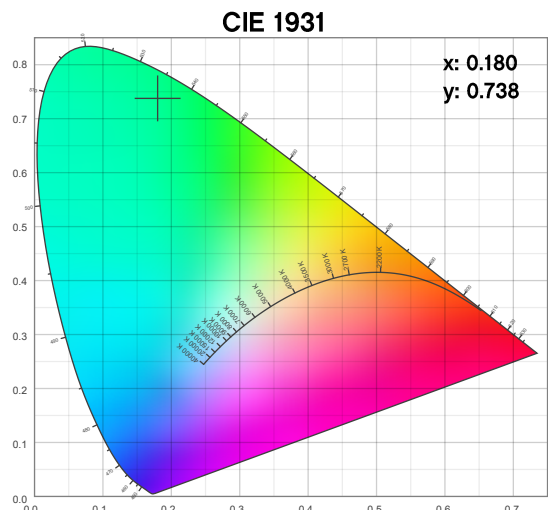
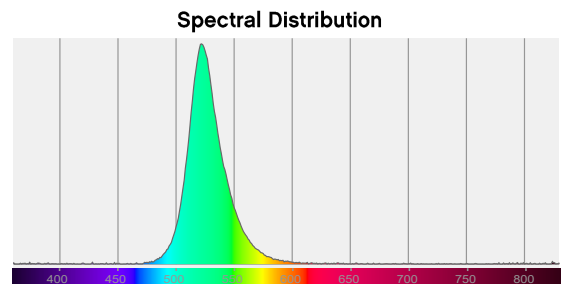
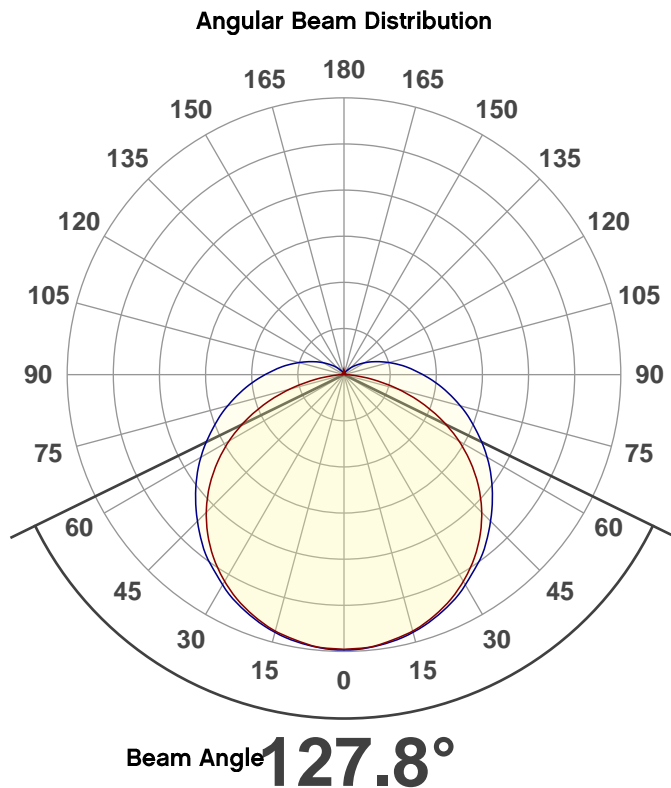
### Conditions

AC Supply: 123 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



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 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

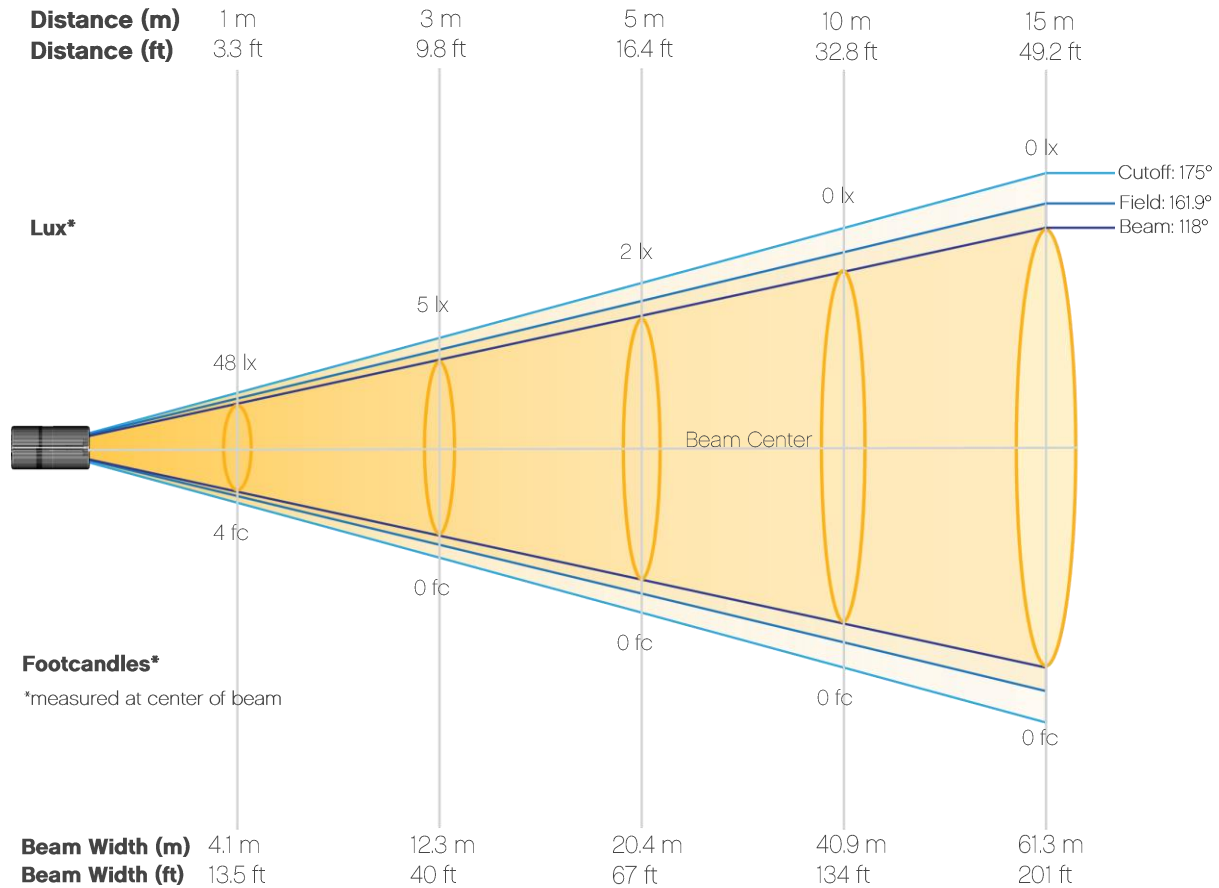




# Photometric Report

Well STX 180: Standard Optics – Green – 12 HR

## Beam Details



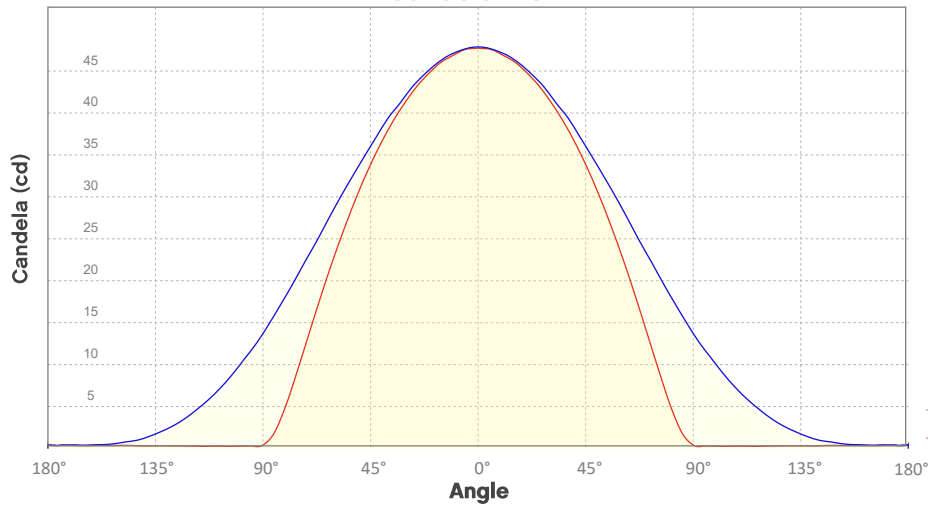
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 48            | 12            | 5             | 3             | 2             | 1             | 1             | 1             | 1             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 4             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Green – 12 HR

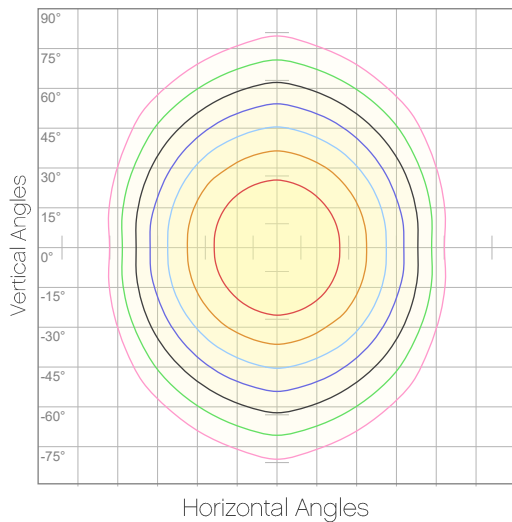
## Candela Plot



Beam Angle (50%): 127.8°  
 Field Angle (10%): 202.5°  
 Cutoff Angle (3%): 240.8°

— Horizontal Distribution  
 — Vertical Distribution

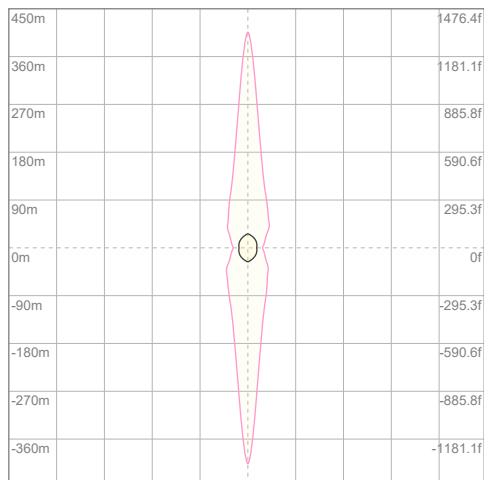
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 5 cd  |
| 20% | 10 cd |
| 30% | 14 cd |
| 40% | 19 cd |
| 50% | 24 cd |
| 60% | 29 cd |
| 70% | 33 cd |
| 80% | 38 cd |
| 90% | 43 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 48 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 14.3m lx |
| 5%  | 23.9m lx |
| 10% | 47.8m lx |
| 30% | 0.143 lx |
| 50% | 0.239 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 0.478 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Blue – 3 HR

## Report Summary

### Output

Total Lumens: 86.3 lm  
Peak Intensity: 22.0 cd  
Illuminance @ 5m: 1 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 118.5°  
Vertical Beam Angle (50%): 139.3°  
Horizontal Field Angle (10%): 162.8°  
Vertical Field Angle (10%): 237°  
Horizontal Cutoff Angle (3%): 175.8°  
Vertical Cutoff Angle (3%): 289.9°

### Conditions

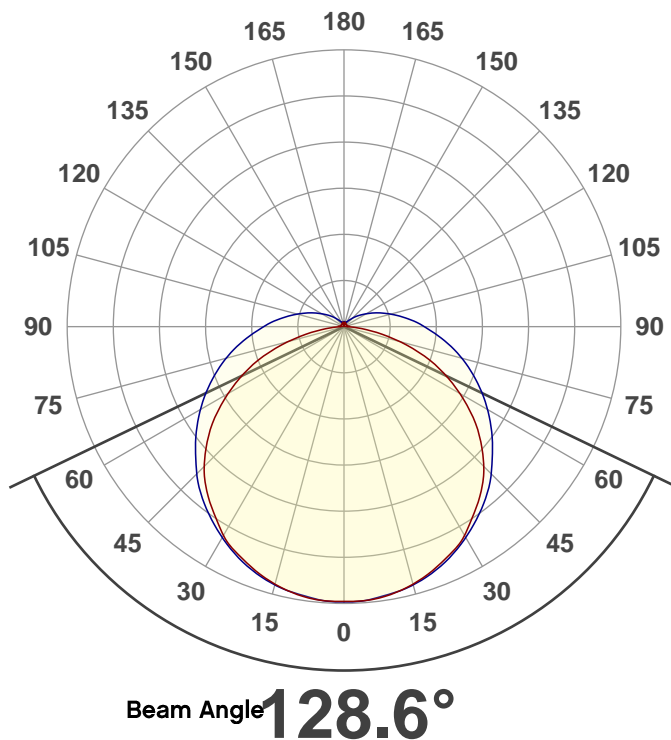
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



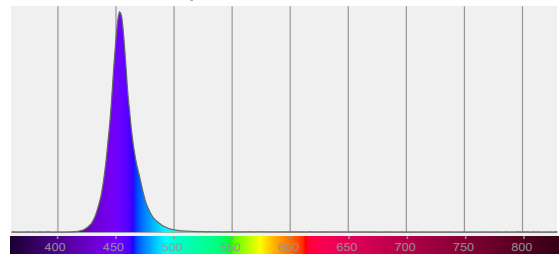
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

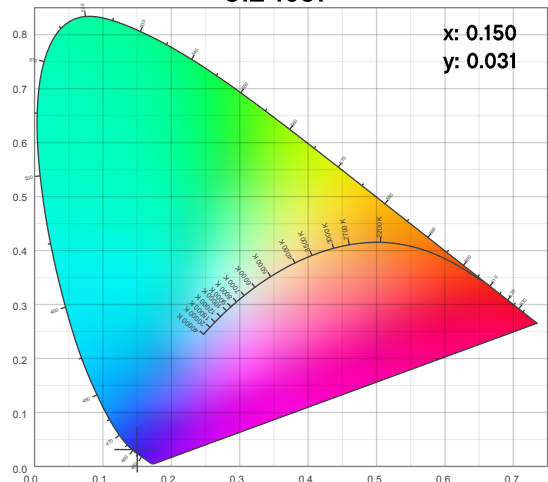
### Angular Beam Distribution



### Spectral Distribution



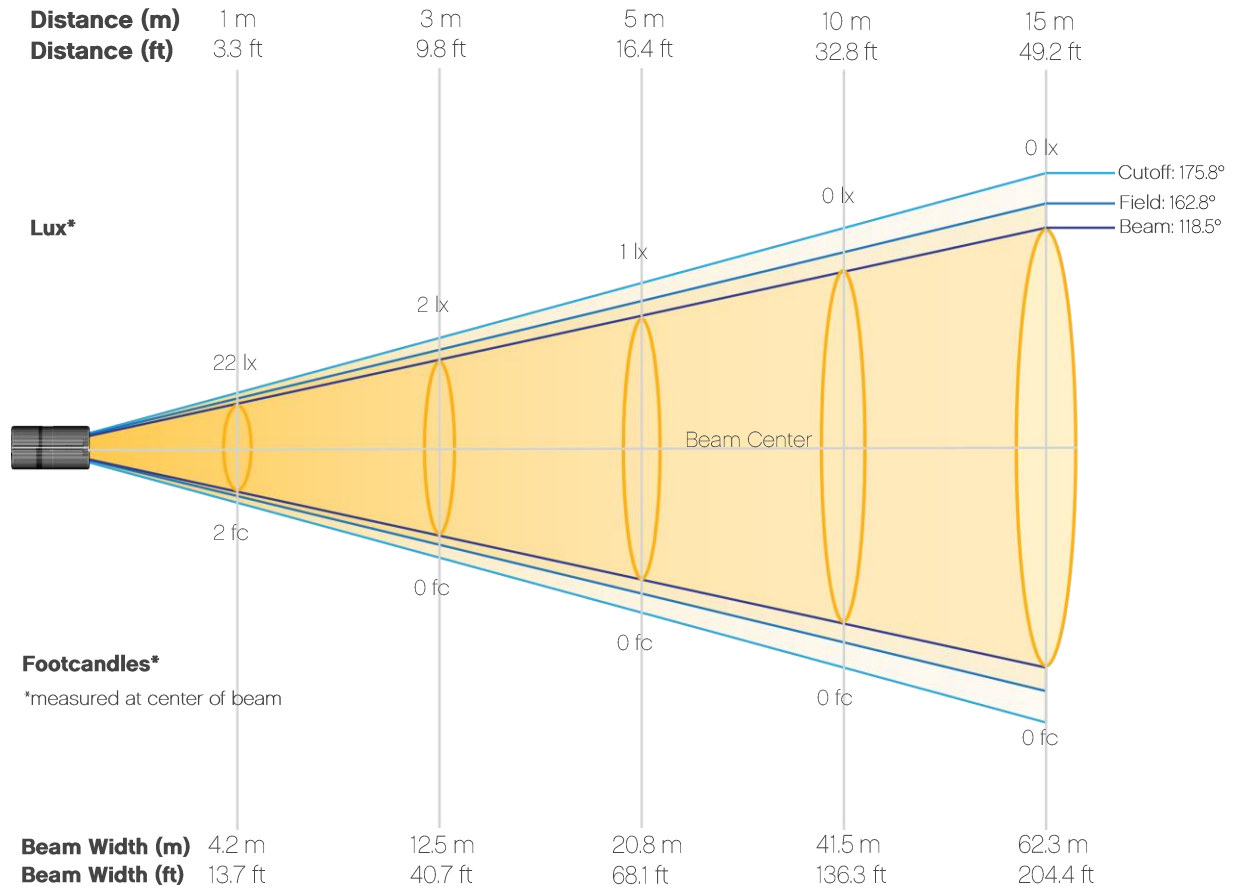
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Blue – 3 HR

## Beam Details



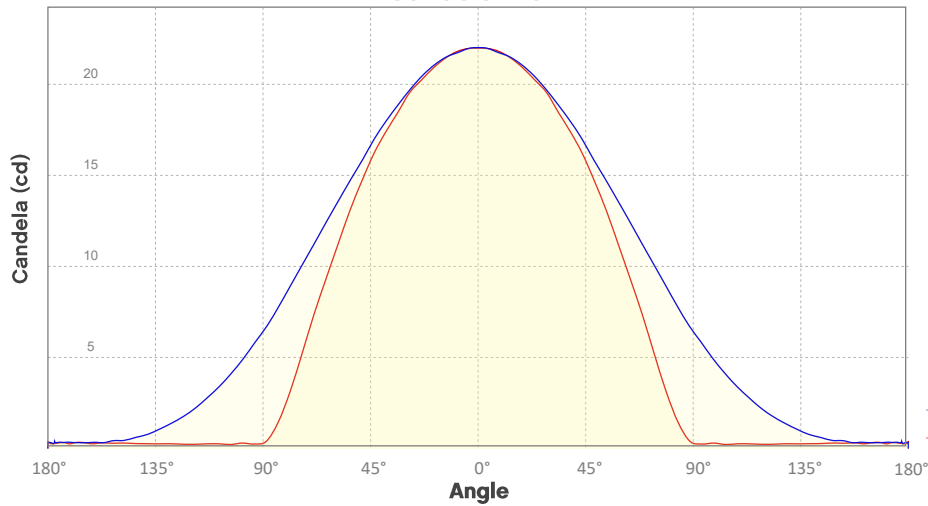
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 22            | 6             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 2             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Blue – 3 HR

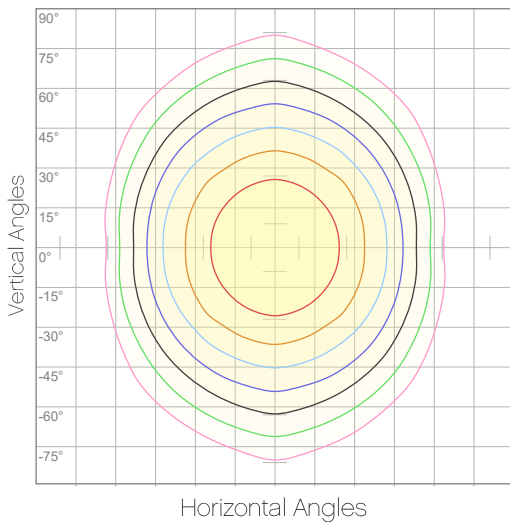
## Candela Plot



Beam Angle (50%): 128.6°  
 Field Angle (10%): 204.8°  
 Cutoff Angle (3%): 247.8°

— Horizontal Distribution  
 — Vertical Distribution

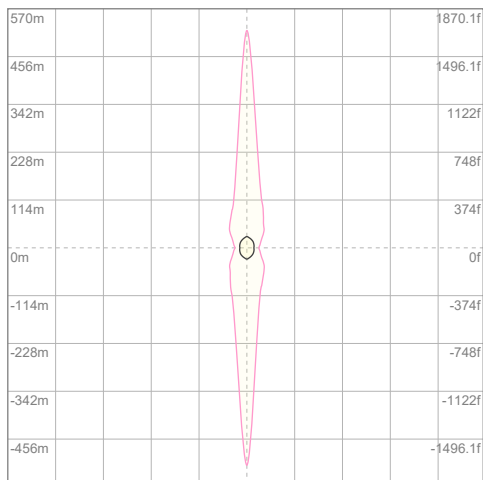
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 2 cd  |
| 20% | 4 cd  |
| 30% | 7 cd  |
| 40% | 9 cd  |
| 50% | 11 cd |
| 60% | 13 cd |
| 70% | 15 cd |
| 80% | 18 cd |
| 90% | 20 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 22 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 6.60m lx |
| 5%  | 11.0m lx |
| 10% | 22.0m lx |
| 30% | 66.0m lx |
| 50% | 0.110 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 0.220 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Blue – 5 HR

## Report Summary

### Output

Total Lumens: - lm  
Peak Intensity: 729 cd  
Illuminance @ 5m: 0 lux  
Fixture Efficacy: 0 lm/W

### Optical

Horizontal Beam Angle (50%): 0°  
Vertical Beam Angle (50%): 0°  
Horizontal Field Angle (10%): 0°  
Vertical Field Angle (10%): 0°  
Horizontal Cutoff Angle (3%): 0°  
Vertical Cutoff Angle (3%): 0°

### Conditions

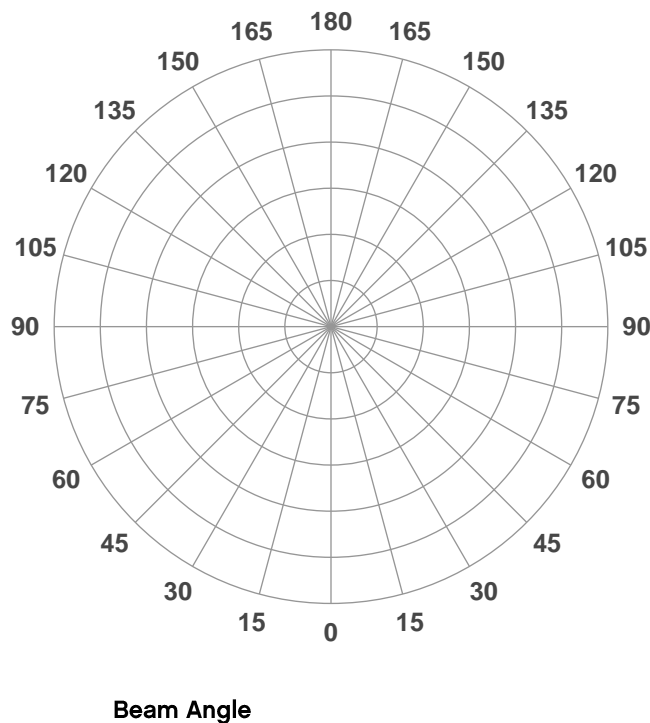
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



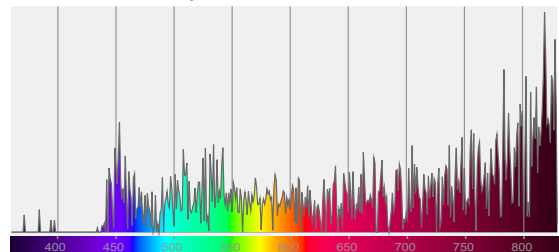
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 10/6/2020 to LM-63-2002 Standards.

## Overall Measurement

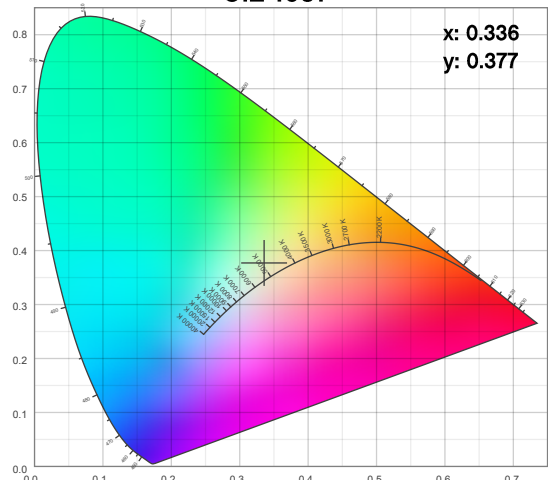
Angular Beam Distribution



Spectral Distribution



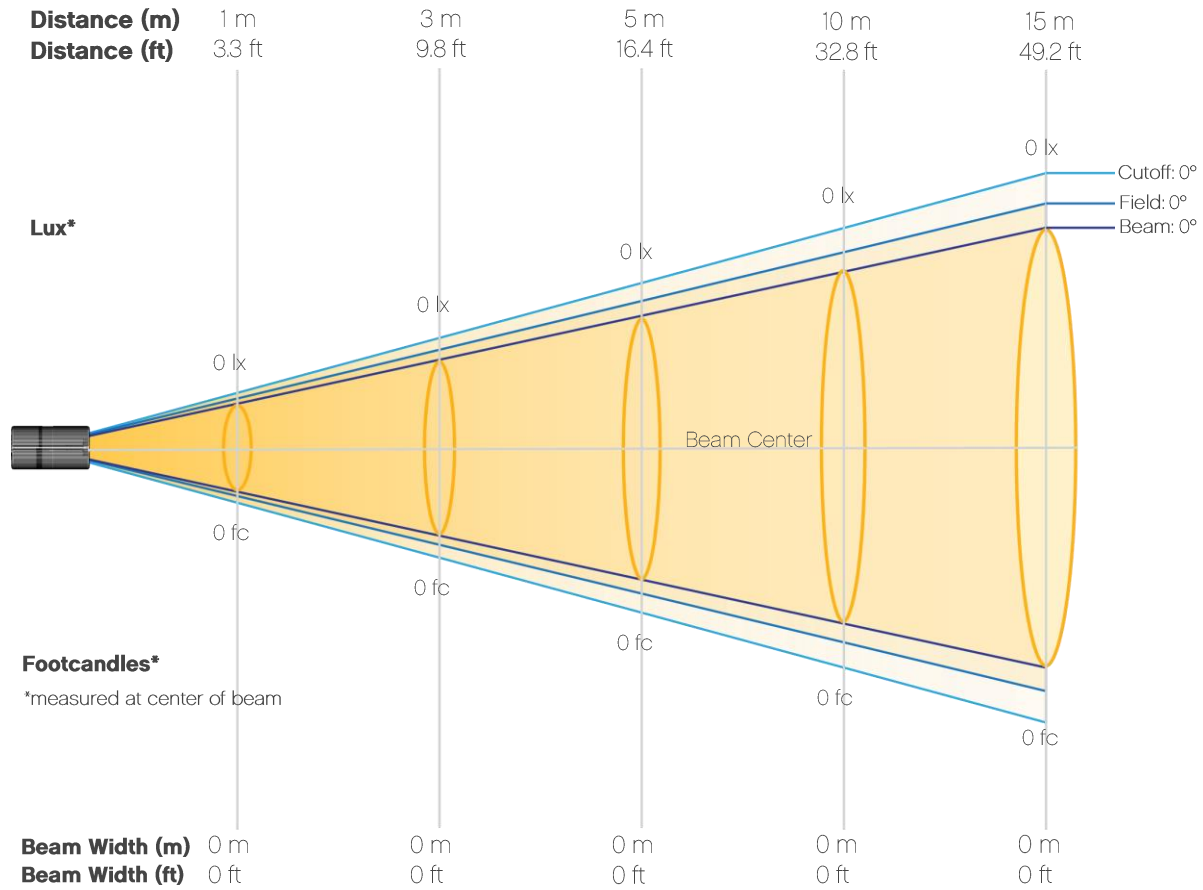
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Blue – 5 HR

## Beam Details



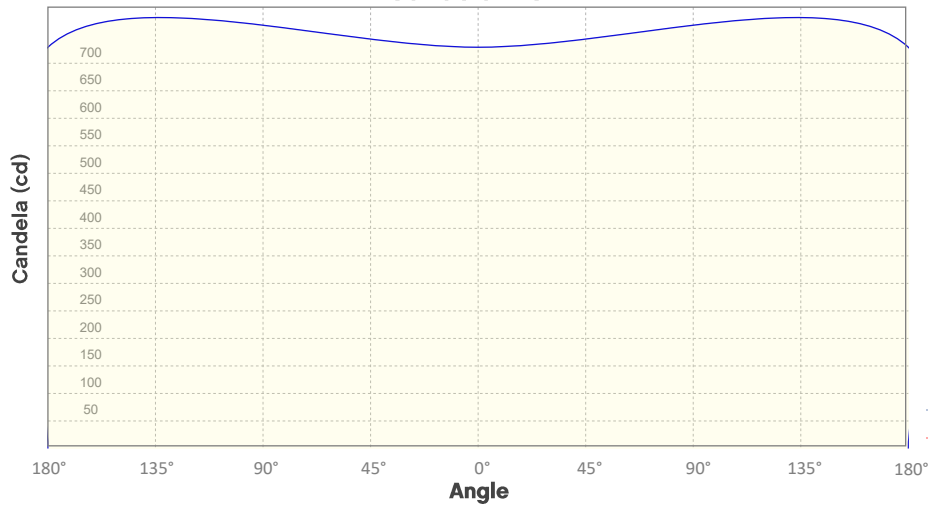
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Blue – 5 HR

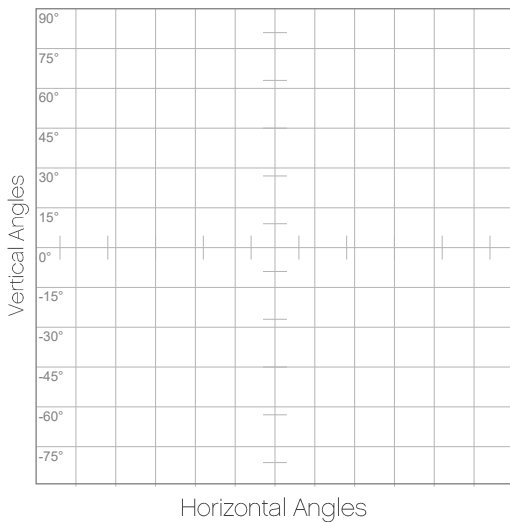
## Candela Plot



Beam Angle (50%): 0°  
 Field Angle (10%): 0°  
 Cutoff Angle (3%): 0°

— Horizontal Distribution  
 — Vertical Distribution

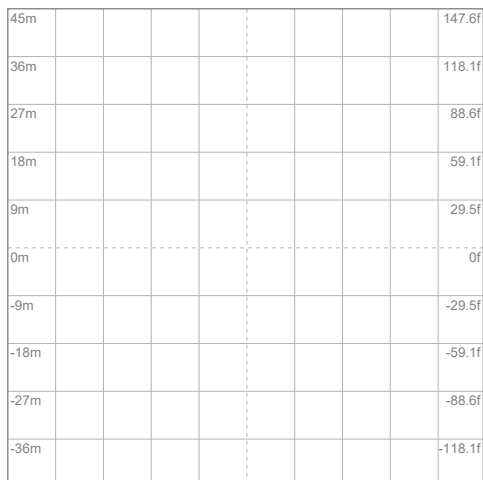
## Polar Diagrams



### iso-candela Diagram

- 10% 0 cd
- 20% 0 cd
- 30% 0 cd
- 40% 0 cd
- 50% 0 cd
- 60% 0 cd
- 70% 0 cd
- 80% 0 cd
- 90% 0 cd

Conditions:  
 Number of c-planes: 2  
 Candela at center: 0 cd



### iso-illuminance Diagram

- 3% 0u lx
- 5% 0u lx
- 10% 0u lx
- 30% 0u lx
- 50% 0u lx

Conditions:  
 Number of c-planes: 2  
 Lux at center: 0u lx

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

Mounting height: 10 meters / 33 feet



# Photometric Report

Well STX 180: Standard Optics – Blue – 8 HR

## Report Summary

### Output

Total Lumens: 86.4 lm  
Peak Intensity: 22.1 cd  
Illuminance @ 5m: 1 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 118.7°  
Vertical Beam Angle (50%): 139.4°  
Horizontal Field Angle (10%): 162.9°  
Vertical Field Angle (10%): 237.8°  
Horizontal Cutoff Angle (3%): 177.1°  
Vertical Cutoff Angle (3%): 298.3°

### Conditions

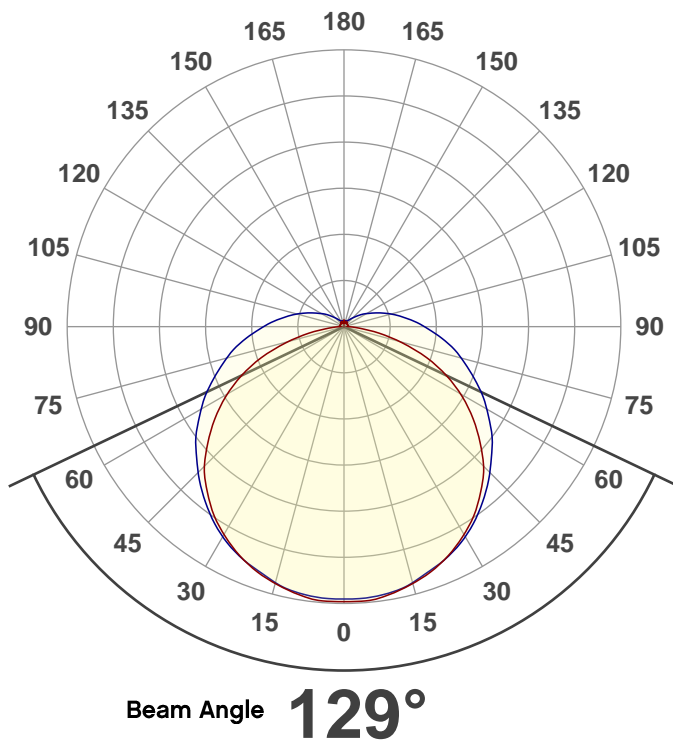
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



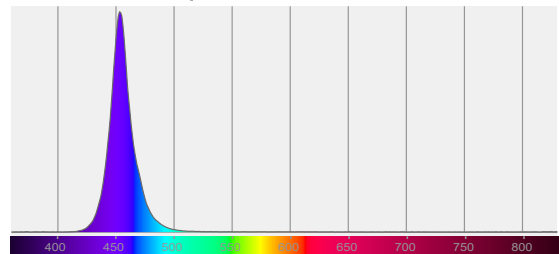
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

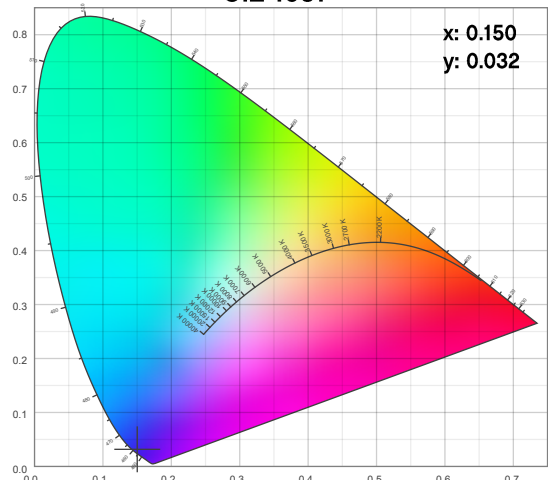
### Angular Beam Distribution



### Spectral Distribution



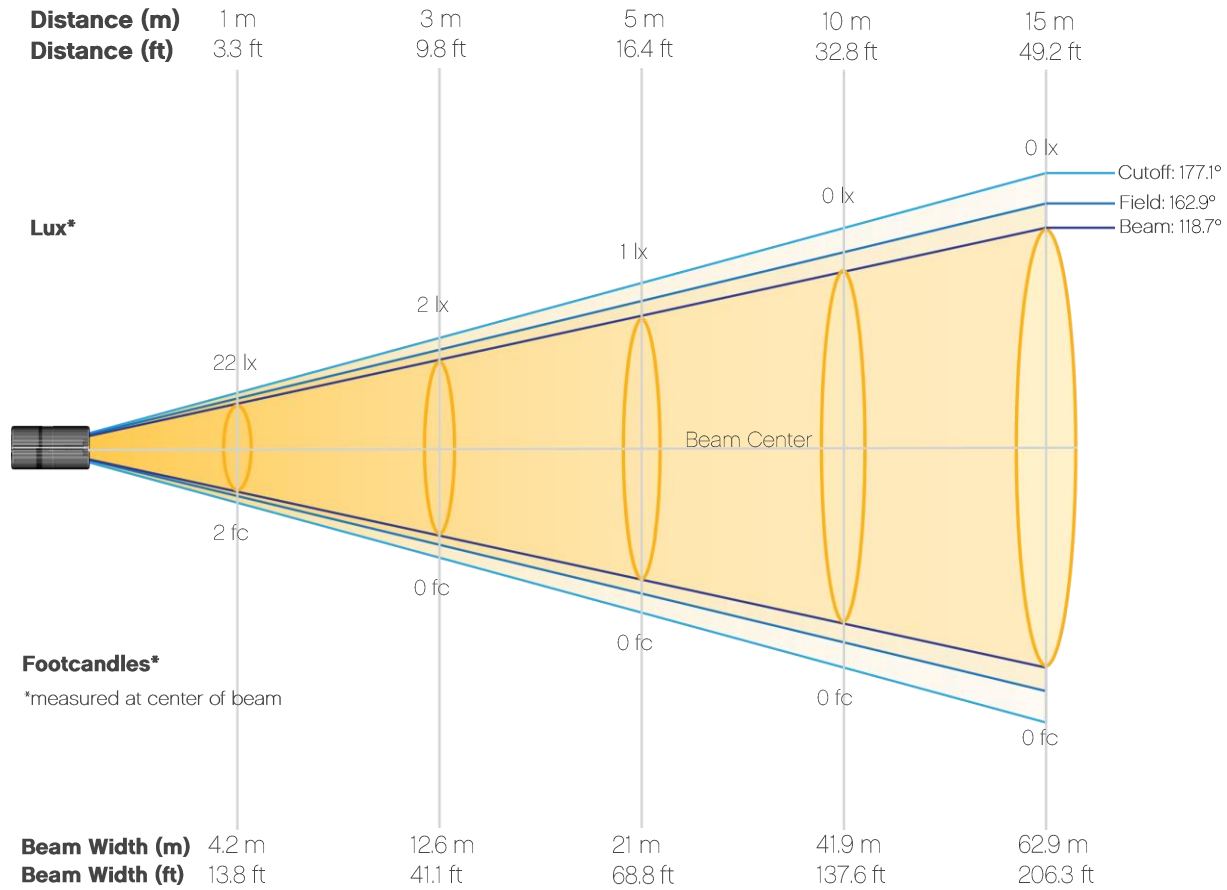
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Blue – 8 HR

## Beam Details



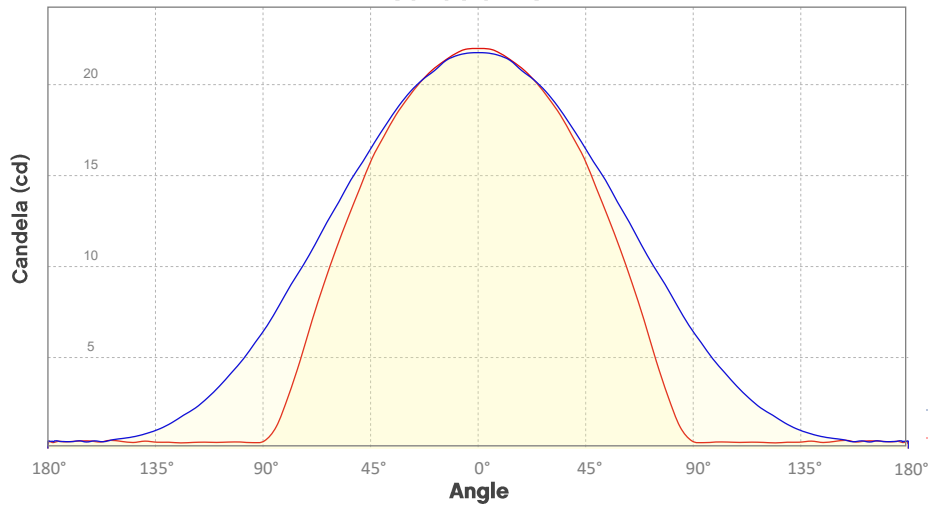
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 22            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 2             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Blue – 8 HR

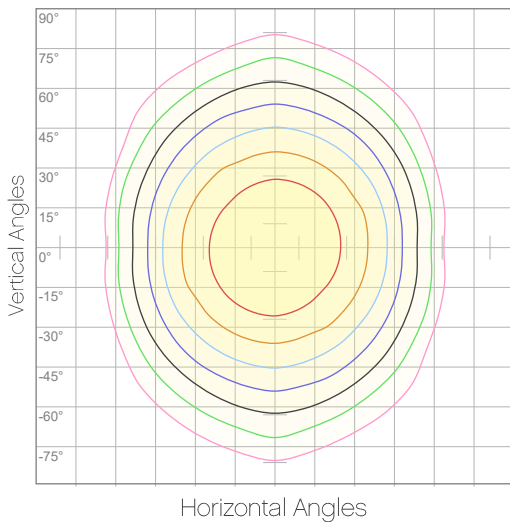
## Candela Plot



Beam Angle (50%): 129°  
Field Angle (10%): 205.5°  
Cutoff Angle (3%): 253.4°

— Horizontal Distribution  
— Vertical Distribution

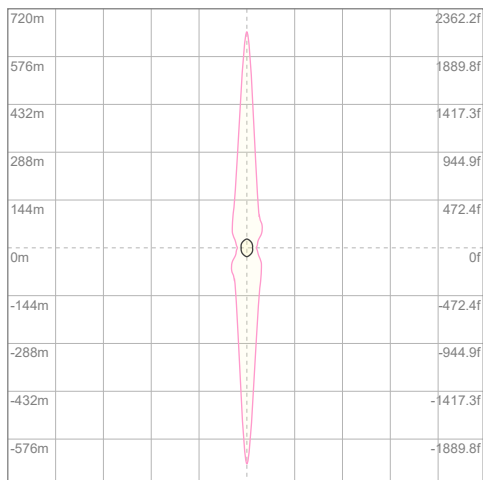
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 2 cd  |
| 20% | 4 cd  |
| 30% | 7 cd  |
| 40% | 9 cd  |
| 50% | 11 cd |
| 60% | 13 cd |
| 70% | 15 cd |
| 80% | 17 cd |
| 90% | 20 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 22 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 6.56m lx |
| 5%  | 10.9m lx |
| 10% | 21.9m lx |
| 30% | 65.6m lx |
| 50% | 0.109 lx |

Conditions:  
Number of c-planes: 8  
Lux at center: 0.219 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Blue – 12 HR

## Report Summary

### Output

Total Lumens: 86.4 lm  
Peak Intensity: 22.1 cd  
Illuminance @ 5m: 1 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 118.7°  
Vertical Beam Angle (50%): 139.4°  
Horizontal Field Angle (10%): 162.9°  
Vertical Field Angle (10%): 237.8°  
Horizontal Cutoff Angle (3%): 177.1°  
Vertical Cutoff Angle (3%): 298.3°

### Conditions

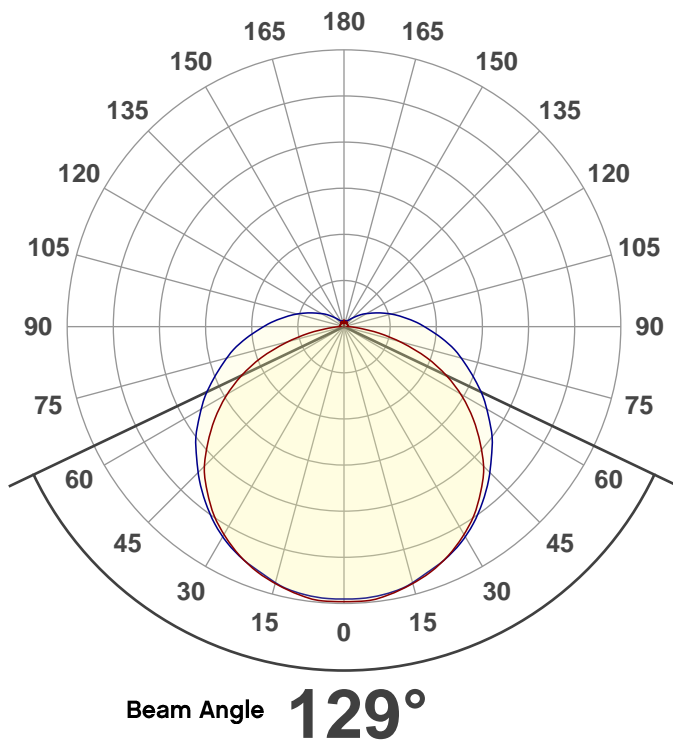
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



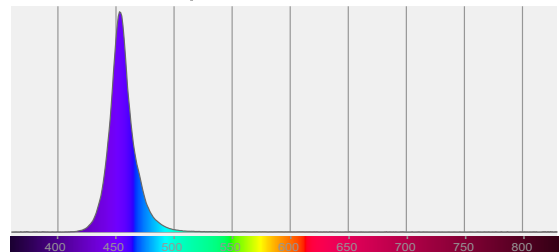
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

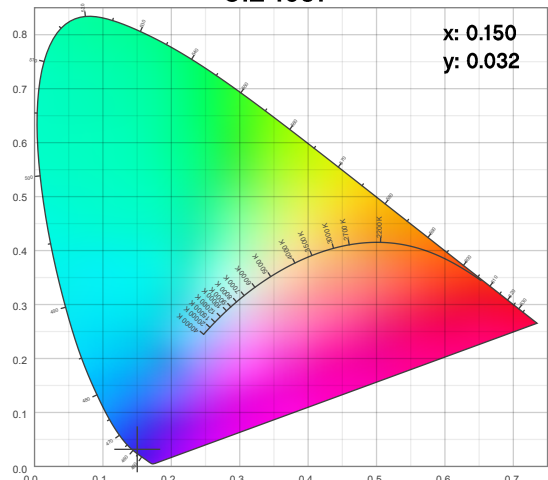
### Angular Beam Distribution



### Spectral Distribution



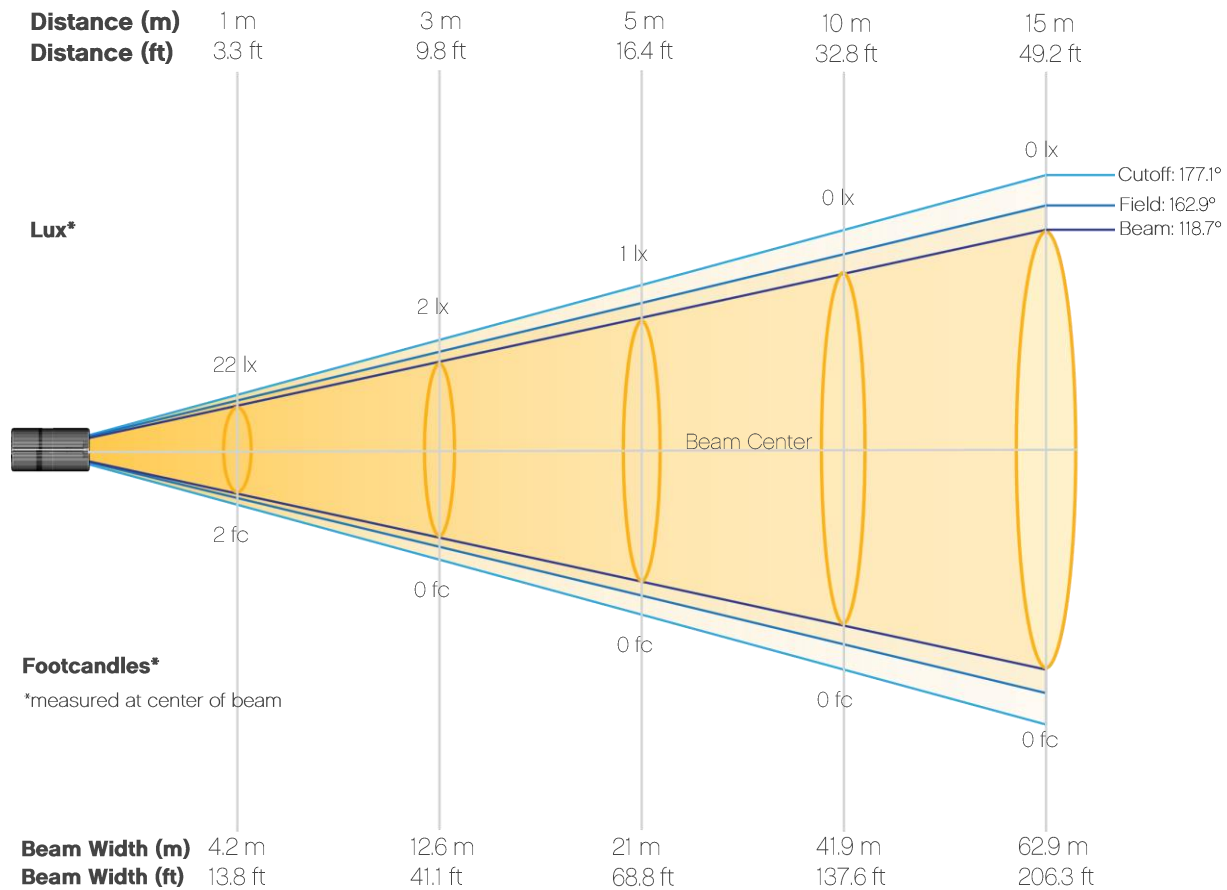
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Blue – 12 HR

## Beam Details



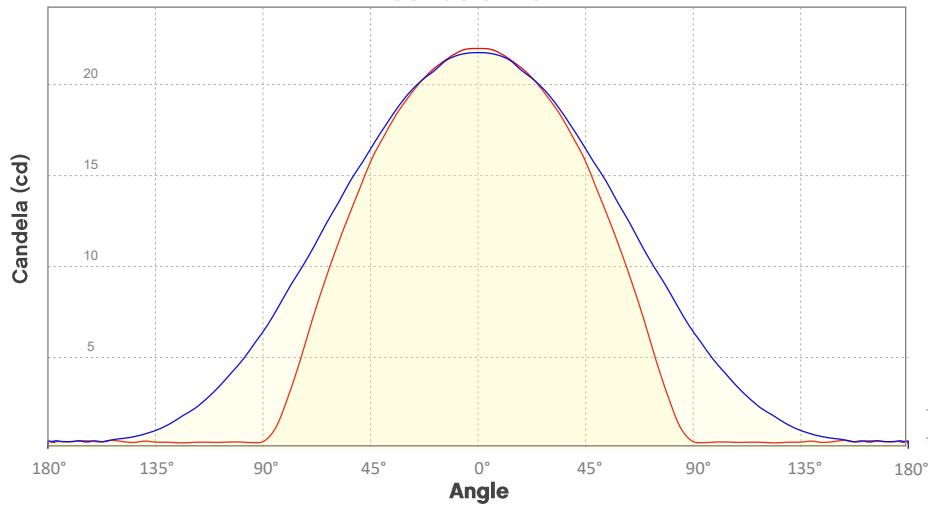
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 22            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 2             | 1             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Blue – 12 HR

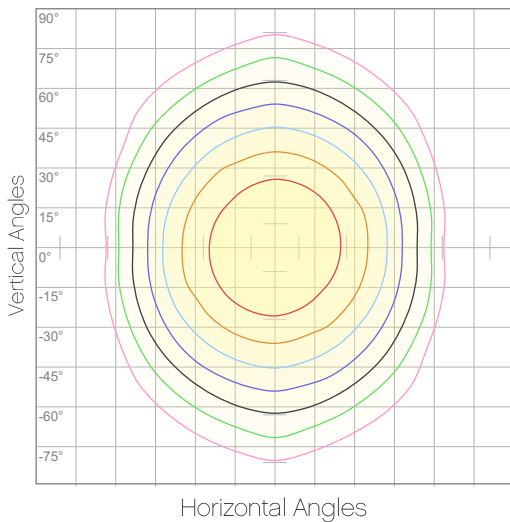
## Candela Plot



Beam Angle (50%): 129°  
Field Angle (10%): 205.5°  
Cutoff Angle (3%): 253.4°

— Horizontal Distribution  
— Vertical Distribution

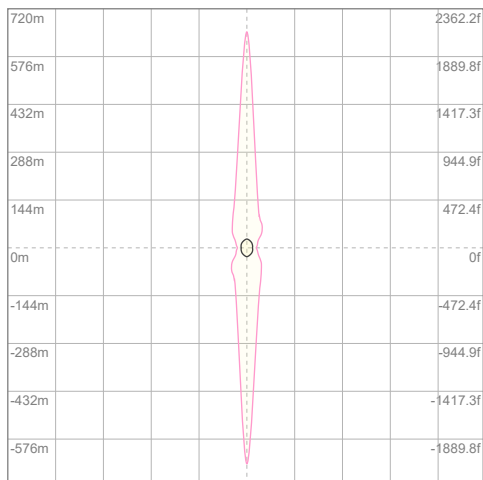
## Polar Diagrams



### iso-candela Diagram

|     |       |
|-----|-------|
| 10% | 2 cd  |
| 20% | 4 cd  |
| 30% | 7 cd  |
| 40% | 9 cd  |
| 50% | 11 cd |
| 60% | 13 cd |
| 70% | 15 cd |
| 80% | 17 cd |
| 90% | 20 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 22 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 6.56m lx |
| 5%  | 10.9m lx |
| 10% | 21.9m lx |
| 30% | 65.6m lx |
| 50% | 0.109 lx |

Conditions:  
Number of c-planes: 8  
Lux at center: 0.219 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Warm White – 3 HR

## Report Summary

### Output

Total Lumens: 638 lm  
Peak Intensity: 167 cd  
Illuminance @ 5m: 7 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.6°  
Vertical Beam Angle (50%): 137.4°  
Horizontal Field Angle (10%): 161.8°  
Vertical Field Angle (10%): 232.7°  
Horizontal Cutoff Angle (3%): 174.7°  
Vertical Cutoff Angle (3%): 280.5°

### Conditions

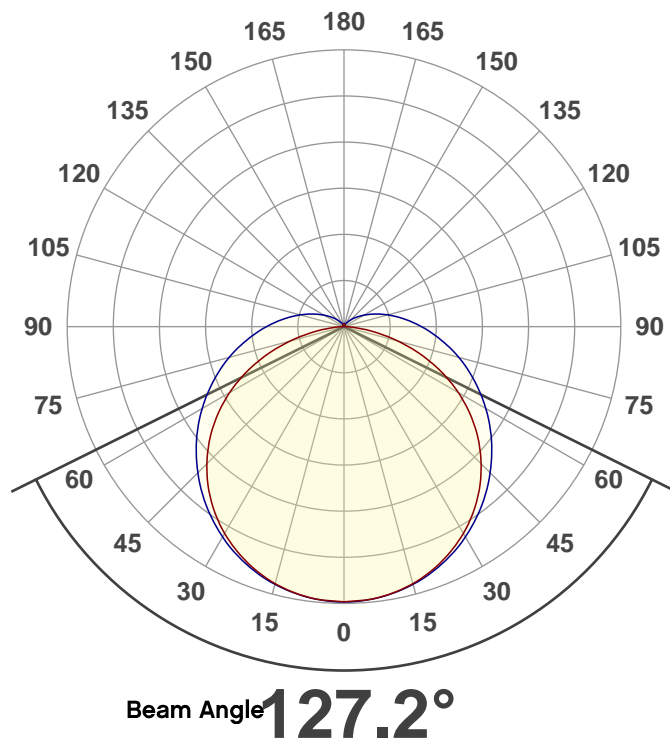
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



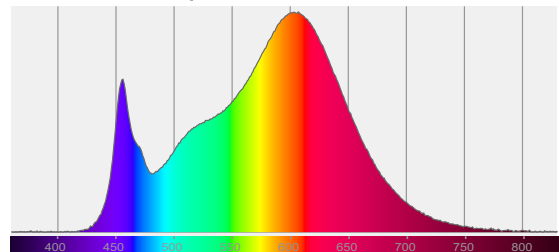
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

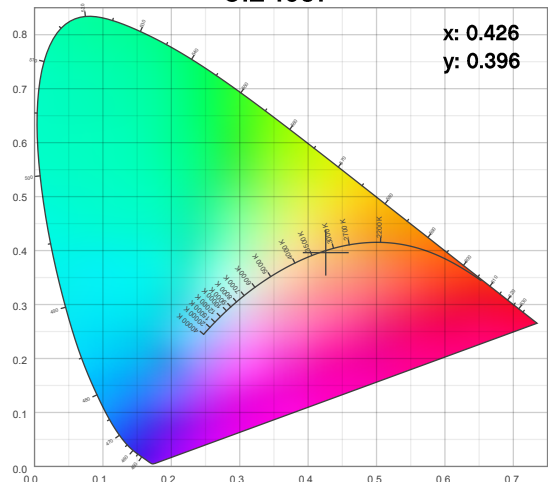
### Angular Beam Distribution



### Spectral Distribution



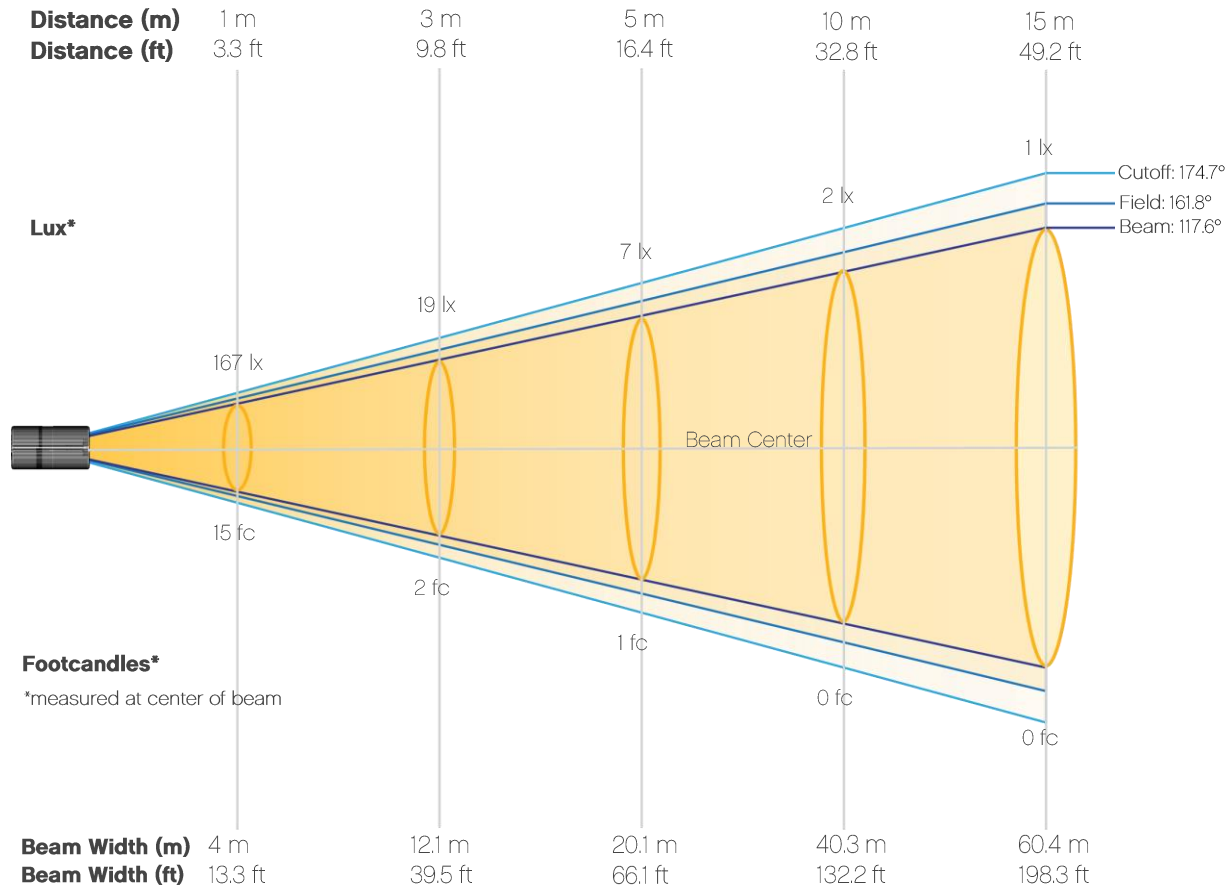
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Warm White – 3 HR

## Beam Details



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

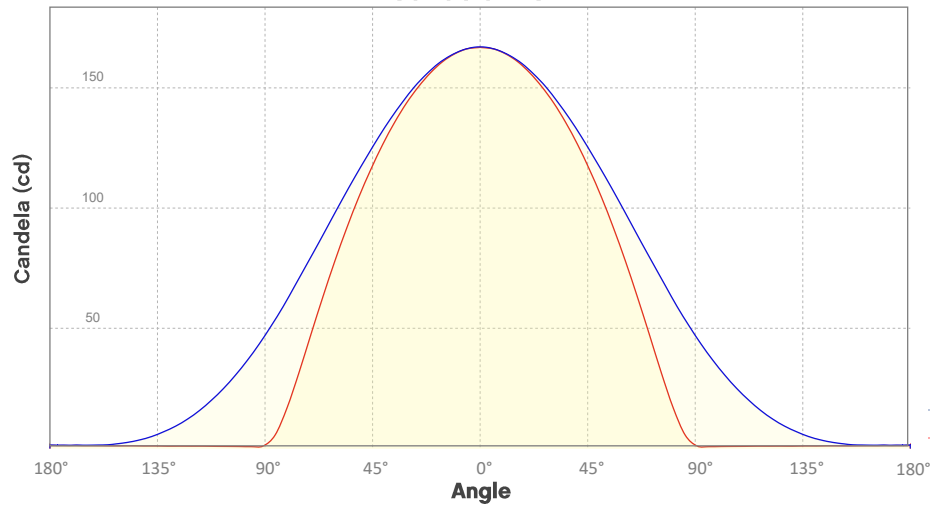
|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 167           | 42            | 19            | 10            | 7             | 5             | 3             | 3             | 2             | 2             |
| <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             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 0             | 0             |
| <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              | 15            | 4             | 2             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |



# Photometric Report

Well STX 180: Standard Optics – Warm White – 3 HR

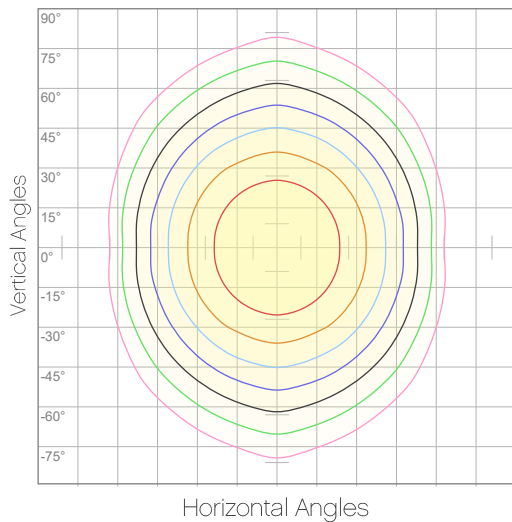
## Candela Plot



Beam Angle (50%): 127.2°  
 Field Angle (10%): 201.5°  
 Cutoff Angle (3%): 240.5°

— Horizontal Distribution  
 — Vertical Distribution

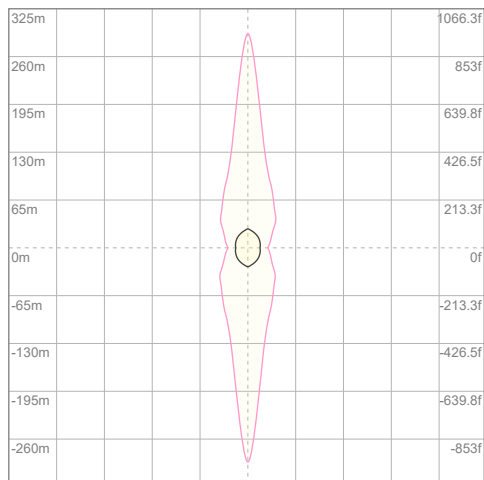
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 17 cd  |
| 20% | 33 cd  |
| 30% | 50 cd  |
| 40% | 67 cd  |
| 50% | 83 cd  |
| 60% | 100 cd |
| 70% | 117 cd |
| 80% | 133 cd |
| 90% | 150 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 167 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 50.0m lx |
| 5%  | 83.4m lx |
| 10% | 0.167 lx |
| 30% | 0.500 lx |
| 50% | 0.834 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.67 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Warm White – 5 HR

## Report Summary

### Output

Total Lumens: 638 lm  
Peak Intensity: 167 cd  
Illuminance @ 5m: 7 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.6°  
Vertical Beam Angle (50%): 137.3°  
Horizontal Field Angle (10%): 161.7°  
Vertical Field Angle (10%): 232.9°  
Horizontal Cutoff Angle (3%): 174.9°  
Vertical Cutoff Angle (3%): 280.7°

### Conditions

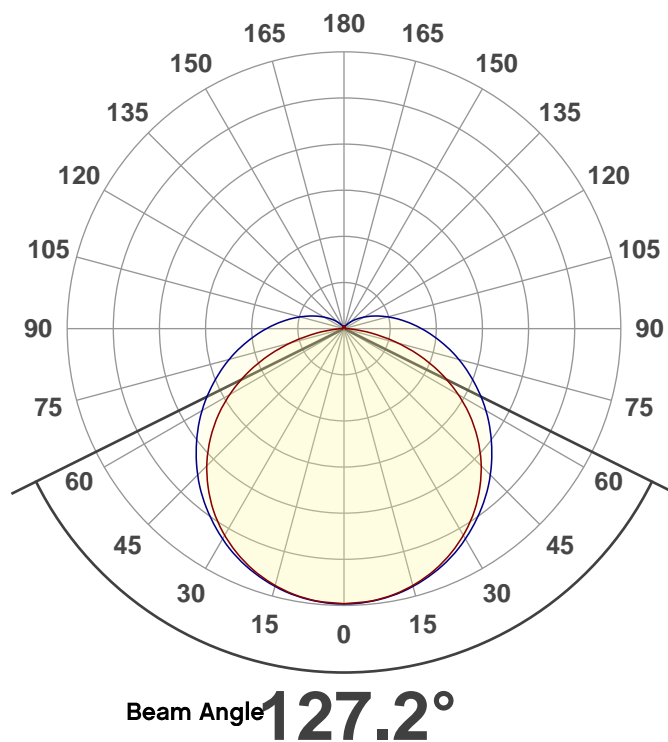
AC Supply: 122 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



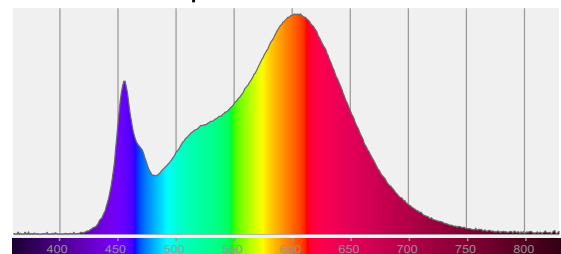
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

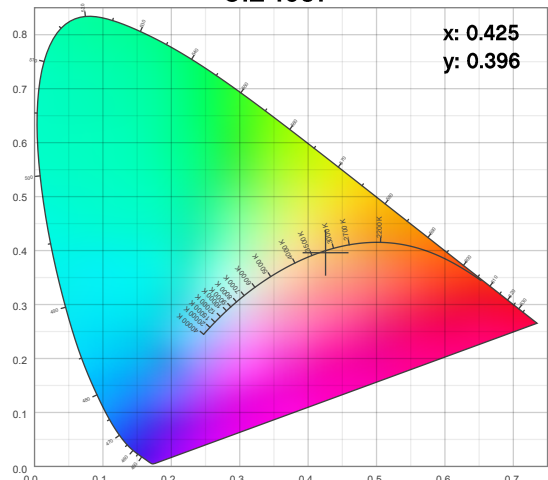
### Angular Beam Distribution



### Spectral Distribution



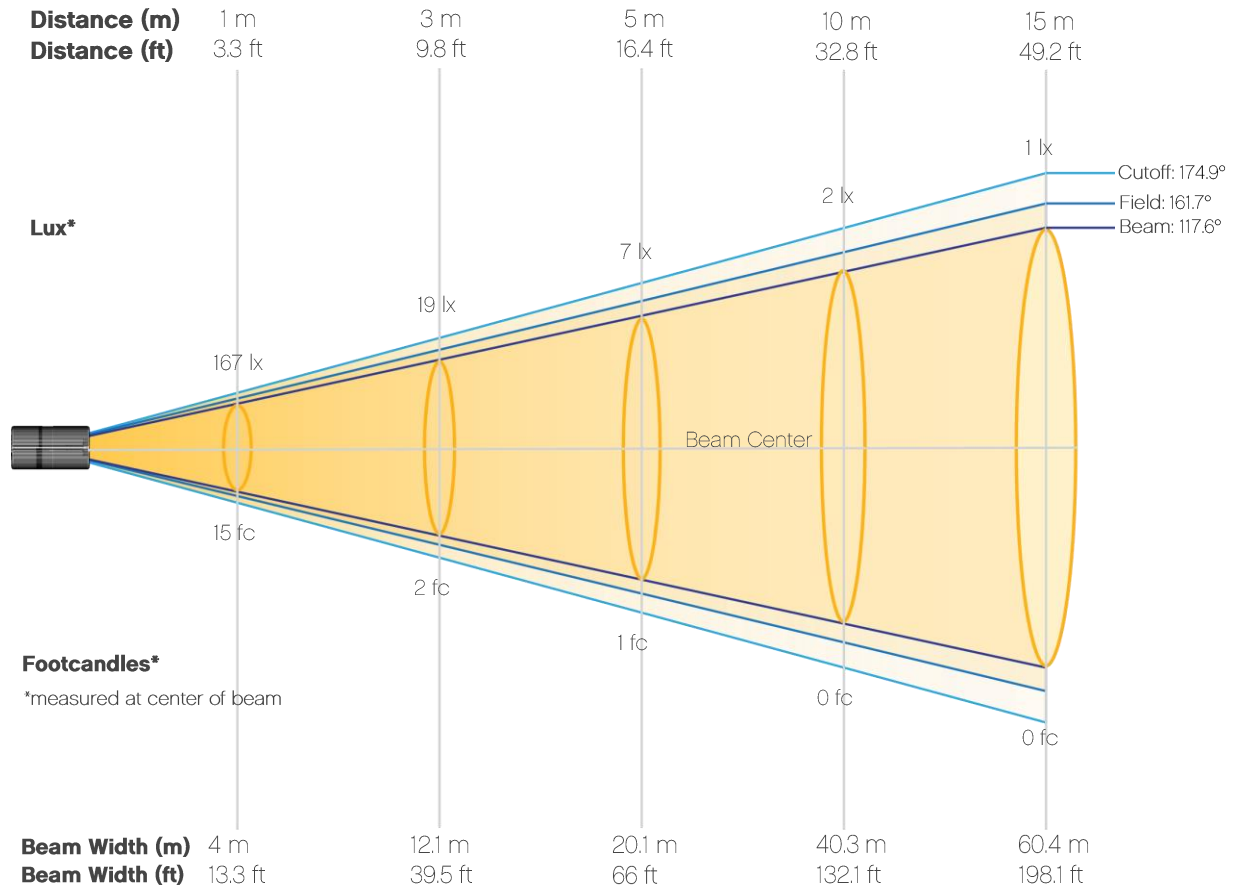
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Warm White – 5 HR

## Beam Details



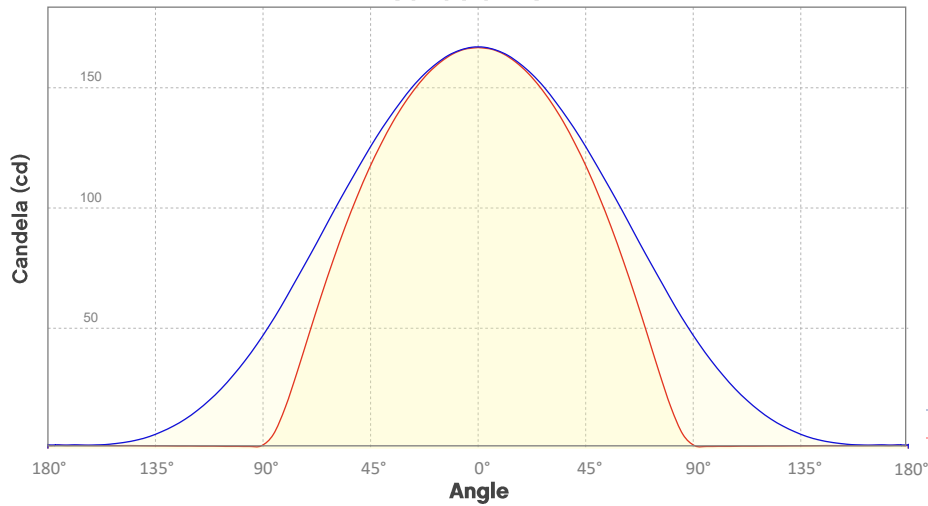
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 167           | 42            | 19            | 10            | 7             | 5             | 3             | 3             | 2             | 2             |
| <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             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 0             | 0             |
| <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              | 15            | 4             | 2             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Warm White – 5 HR

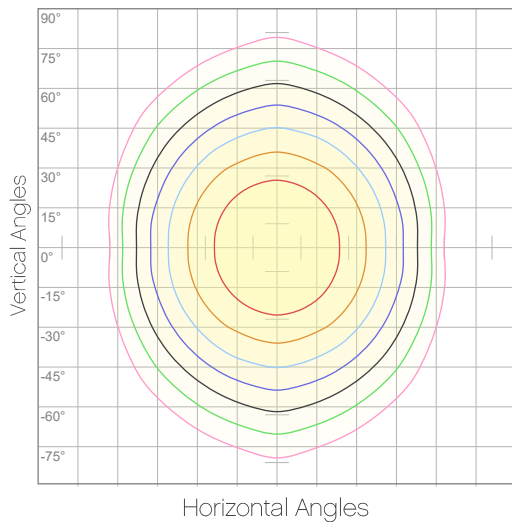
## Candela Plot



Beam Angle (50%): 127.2°  
 Field Angle (10%): 201.6°  
 Cutoff Angle (3%): 240.7°

— Horizontal Distribution  
 — Vertical Distribution

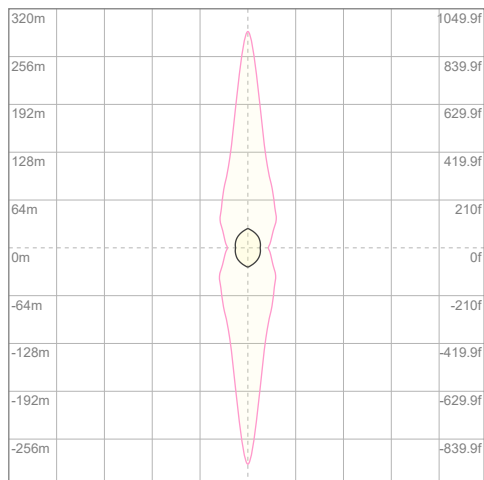
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 17 cd  |
| 20% | 33 cd  |
| 30% | 50 cd  |
| 40% | 67 cd  |
| 50% | 83 cd  |
| 60% | 100 cd |
| 70% | 117 cd |
| 80% | 133 cd |
| 90% | 150 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 167 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 50.0m lx |
| 5%  | 83.4m lx |
| 10% | 0.167 lx |
| 30% | 0.500 lx |
| 50% | 0.834 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.67 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Warm White – 8 HR

## Report Summary

### Output

Total Lumens: 637 lm  
Peak Intensity: 166 cd  
Illuminance @ 5m: 7 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.5°  
Horizontal Field Angle (10%): 161.8°  
Vertical Field Angle (10%): 233.1°  
Horizontal Cutoff Angle (3%): 174.9°  
Vertical Cutoff Angle (3%): 281.2°

### Conditions

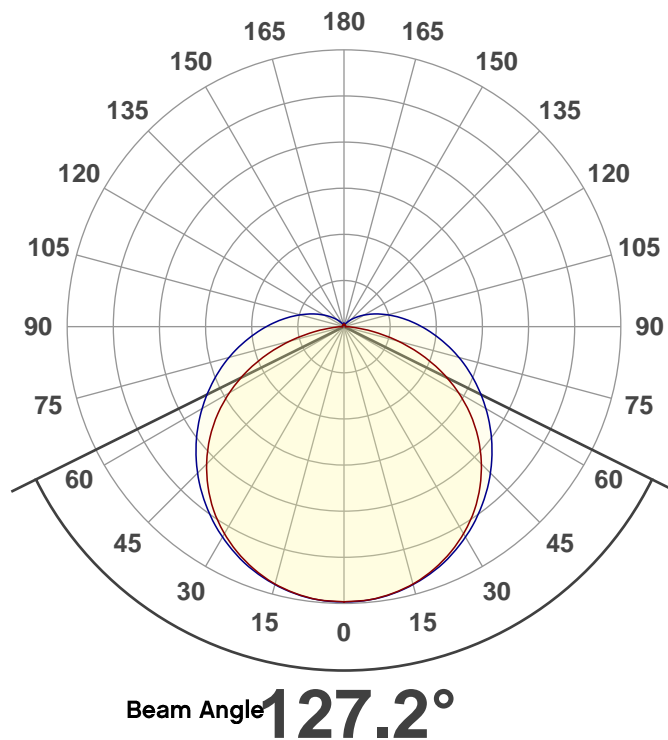
AC Supply: 123 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



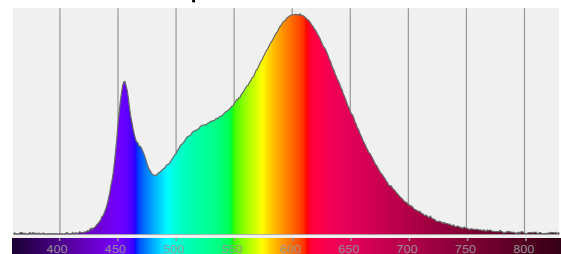
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

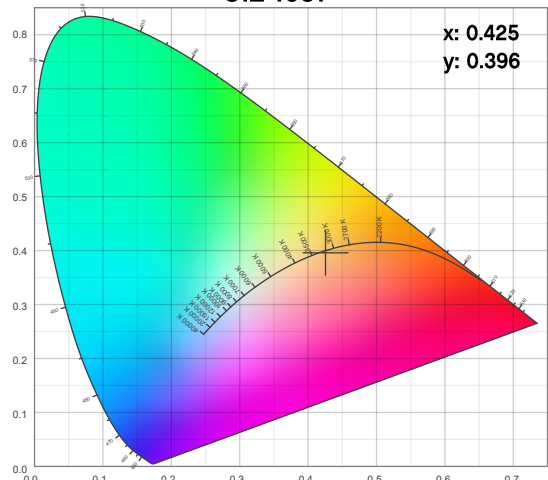
Angular Beam Distribution



Spectral Distribution



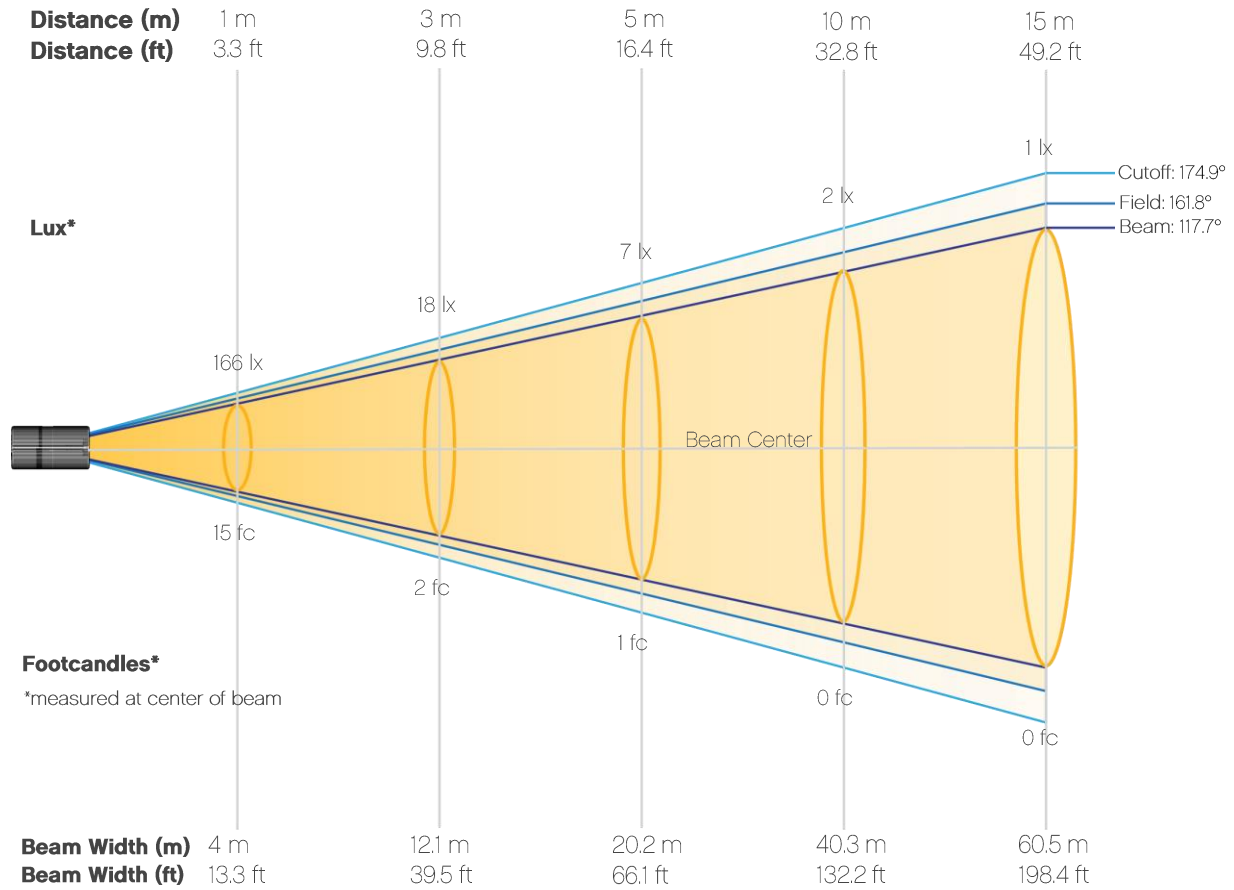
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – Warm White – 8 HR

## Beam Details



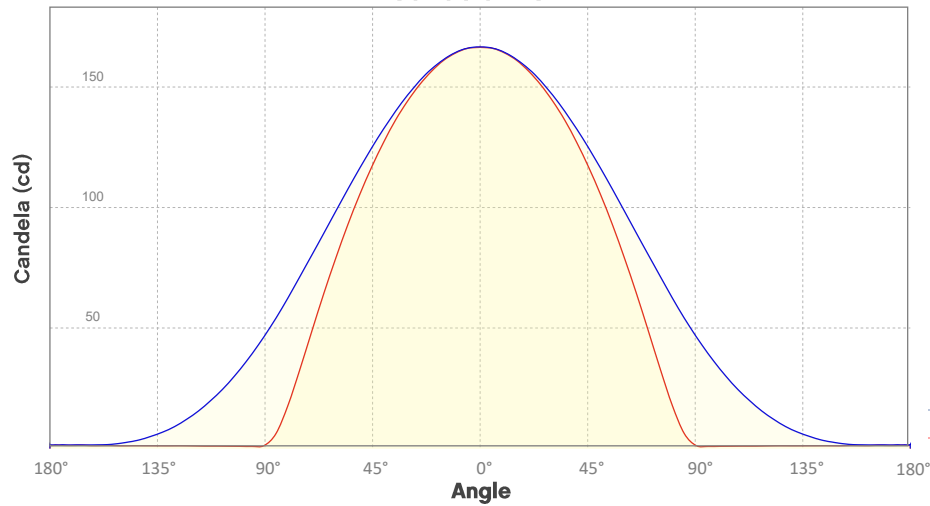
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 166           | 42            | 18            | 10            | 7             | 5             | 3             | 3             | 2             | 2             |
| <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             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 0             | 0             |
| <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              | 15            | 4             | 2             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Warm White – 8 HR

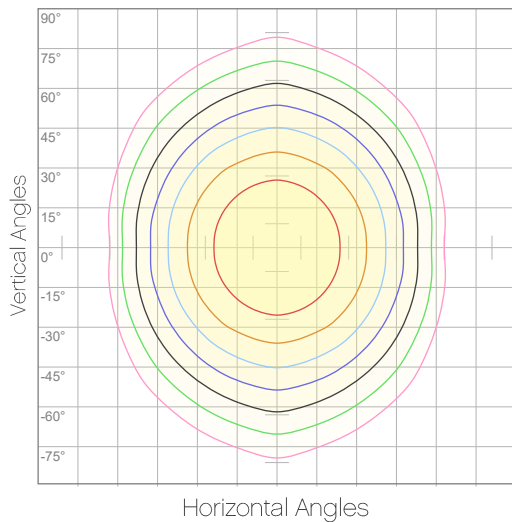
## Candela Plot



Beam Angle (50%): 127.2°  
 Field Angle (10%): 201.6°  
 Cutoff Angle (3%): 240.8°

— Horizontal Distribution  
 — Vertical Distribution

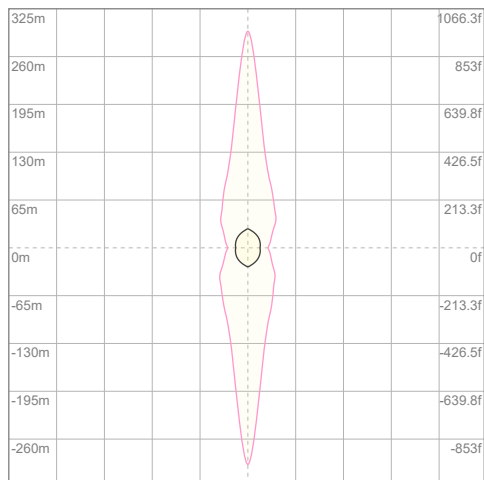
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 17 cd  |
| 20% | 33 cd  |
| 30% | 50 cd  |
| 40% | 67 cd  |
| 50% | 83 cd  |
| 60% | 100 cd |
| 70% | 117 cd |
| 80% | 133 cd |
| 90% | 150 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 166 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 49.9m lx |
| 5%  | 83.2m lx |
| 10% | 0.166 lx |
| 30% | 0.499 lx |
| 50% | 0.832 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.66 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – Warm White – 12 HR

## Report Summary

### Output

Total Lumens: 639 lm  
Peak Intensity: 167 cd  
Illuminance @ 5m: 7 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.5°  
Horizontal Field Angle (10%): 161.8°  
Vertical Field Angle (10%): 232.9°  
Horizontal Cutoff Angle (3%): 175°  
Vertical Cutoff Angle (3%): 281.6°

### Conditions

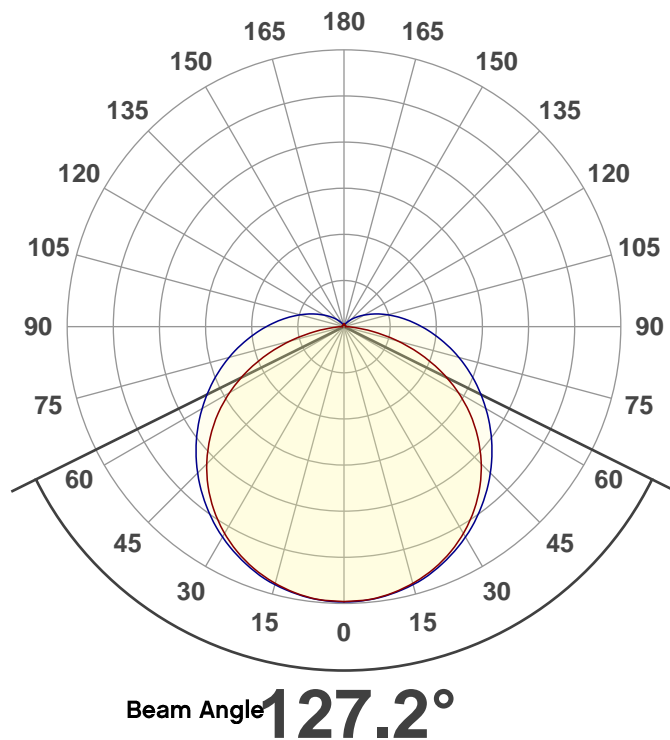
AC Supply: 123 V, 60.1 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



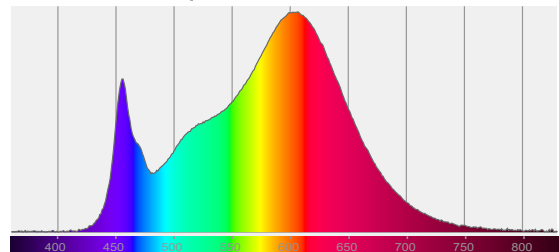
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/8/2019 to LM-63-2002 Standards.

## Overall Measurement

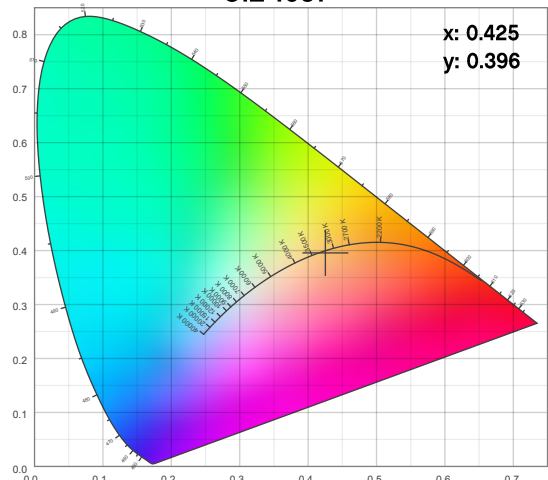
Angular Beam Distribution



Spectral Distribution



CIE 1931

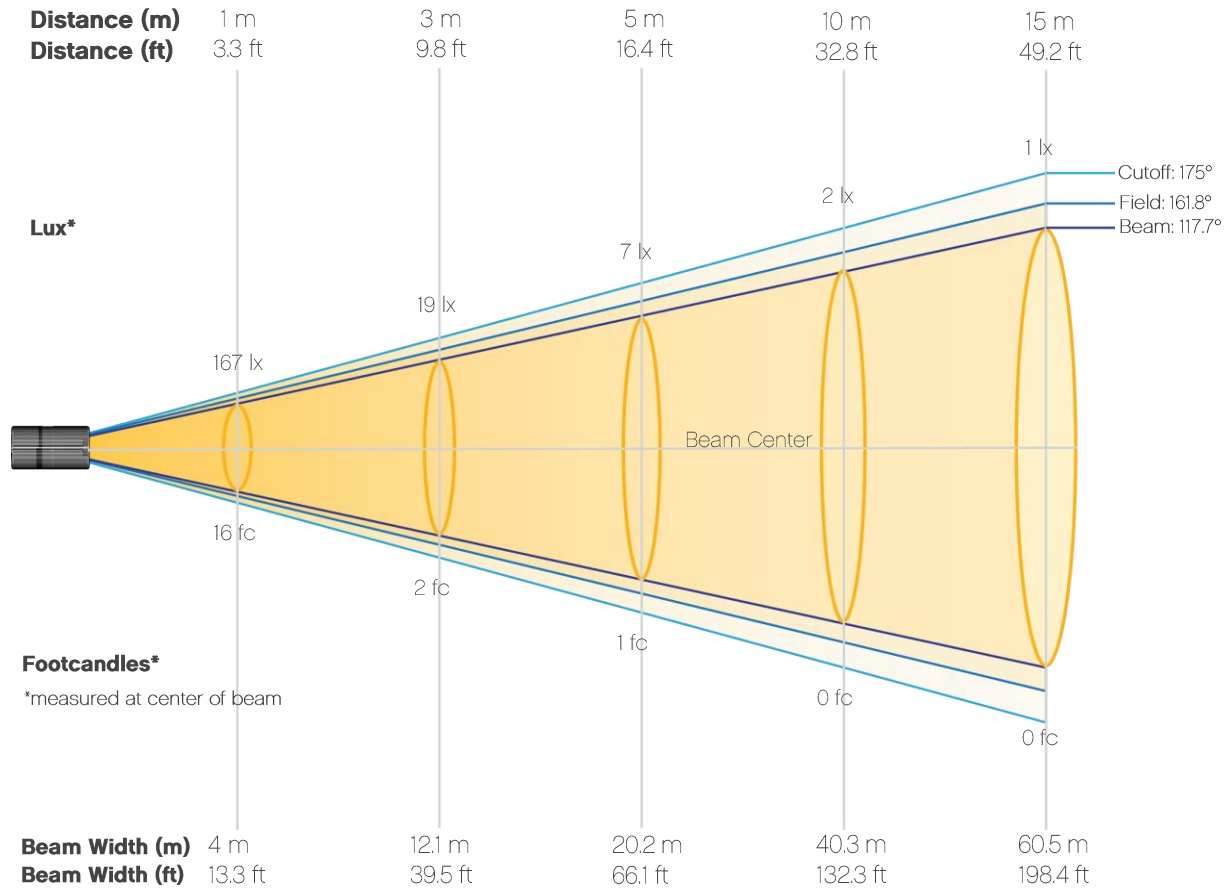




# Photometric Report

Well STX 180: Standard Optics – Warm White – 12 HR

## Beam Details



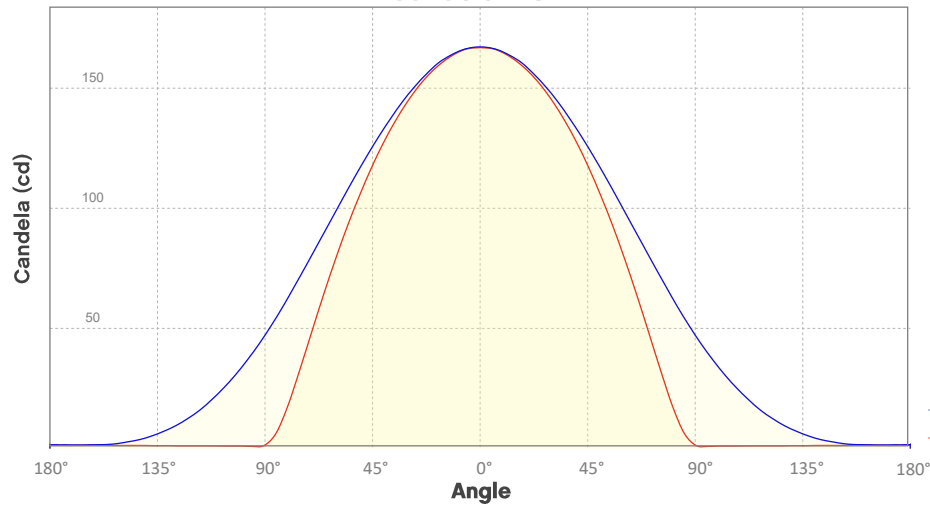
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 167           | 42            | 19            | 10            | 7             | 5             | 3             | 3             | 2             | 2             |
| <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             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 0             | 0             |
| <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              | 16            | 4             | 2             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – Warm White – 12 HR

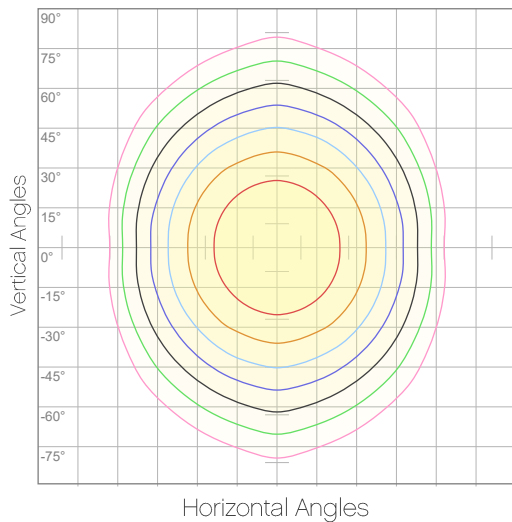
## Candela Plot



Beam Angle (50%): 127.2°  
Field Angle (10%): 201.6°  
Cutoff Angle (3%): 241.1°

— Horizontal Distribution  
— Vertical Distribution

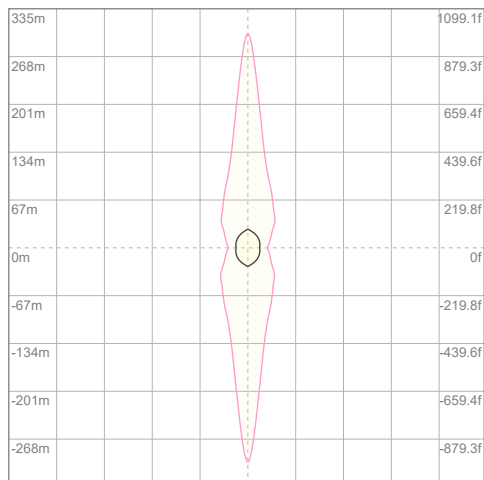
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 17 cd  |
| 20% | 33 cd  |
| 30% | 50 cd  |
| 40% | 67 cd  |
| 50% | 83 cd  |
| 60% | 100 cd |
| 70% | 117 cd |
| 80% | 134 cd |
| 90% | 150 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 167 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 50.1m lx |
| 5%  | 83.5m lx |
| 10% | 0.167 lx |
| 30% | 0.501 lx |
| 50% | 0.835 lx |

Conditions:  
Number of c-planes: 8  
Lux at center: 1.67 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 2800K – 3 HR

## Report Summary

### Output

Total Lumens: 808 lm  
Peak Intensity: 211 cd  
Illuminance @ 5m: 8 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.7°  
Horizontal Field Angle (10%): 161.7°  
Vertical Field Angle (10%): 232.9°  
Horizontal Cutoff Angle (3%): 174.6°  
Vertical Cutoff Angle (3%): 280.1°

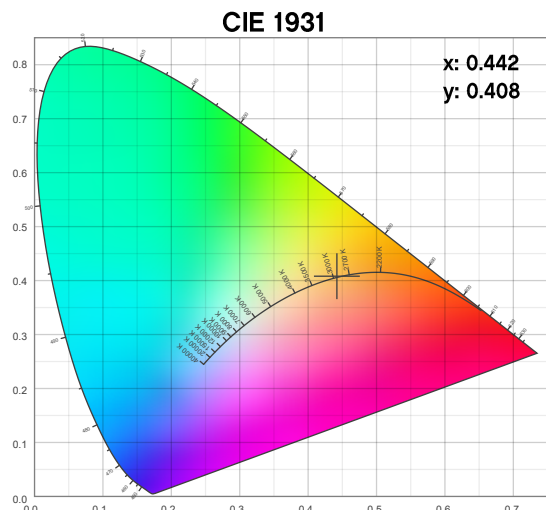
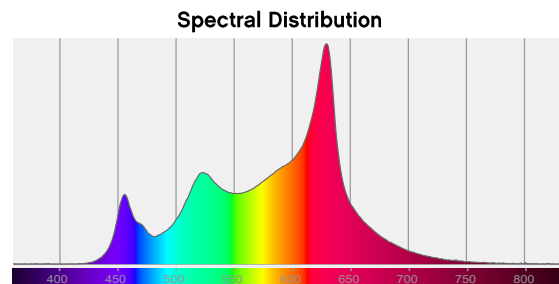
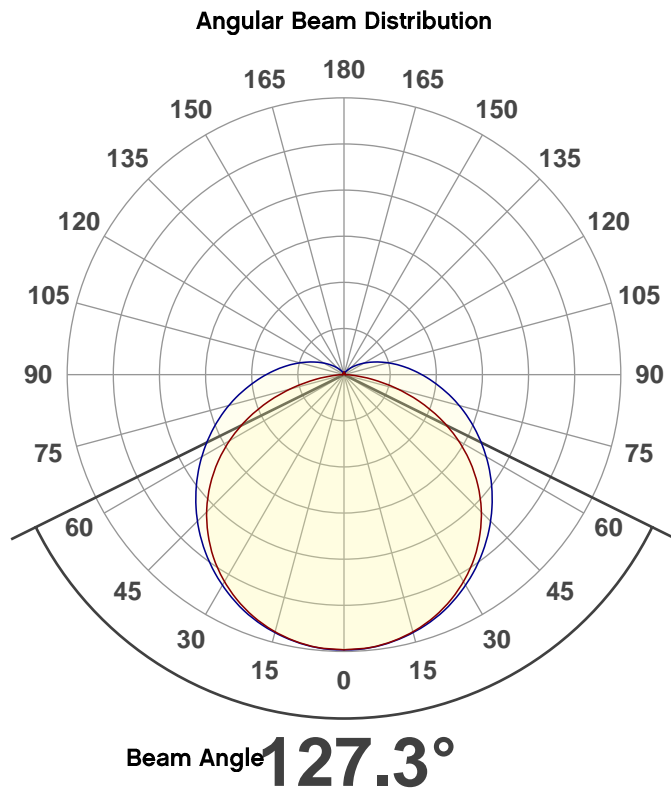
### Conditions

AC Supply: 124 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



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 11/11/2019 to LM-63-2002 Standards.

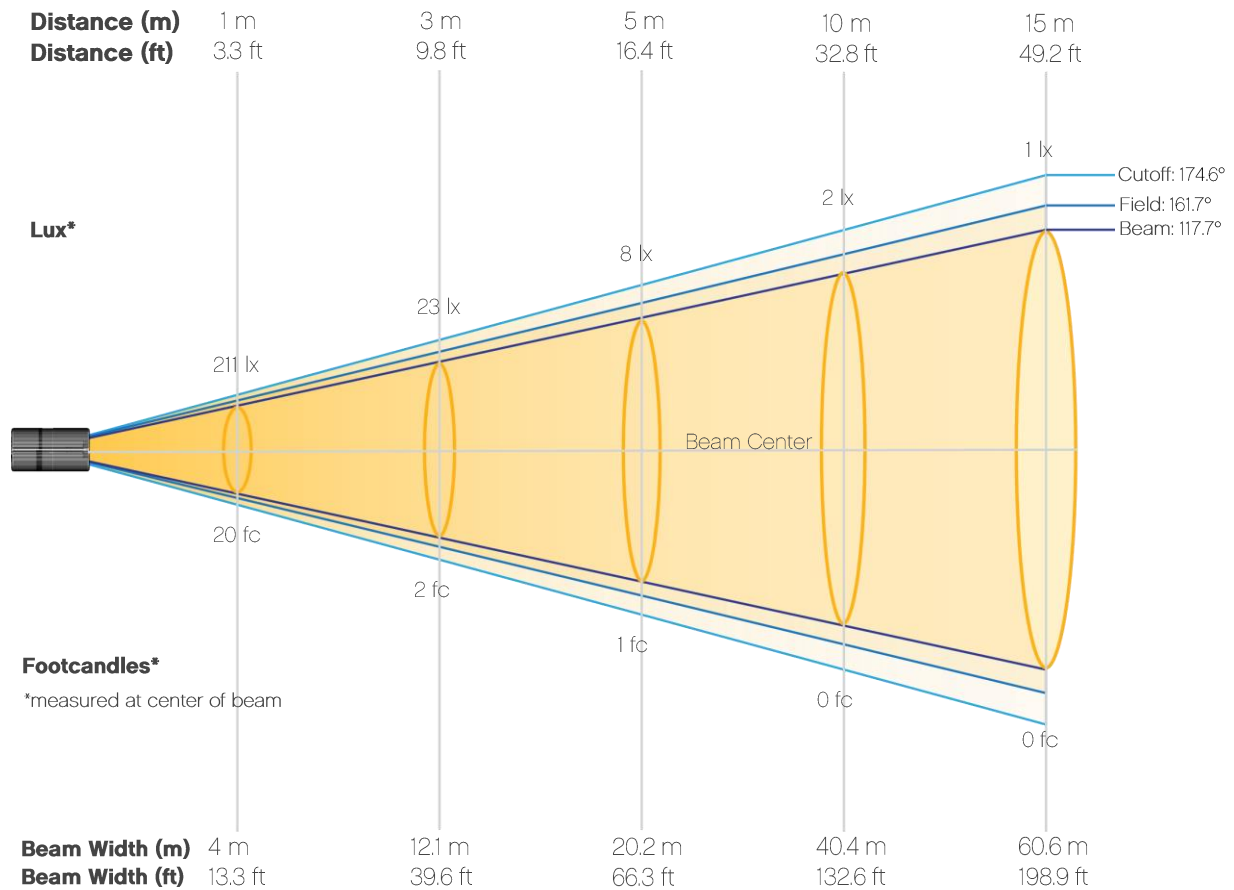
## Overall Measurement



# Photometric Report

Well STX 180: Standard Optics – 2800K – 3 HR

## Beam Details



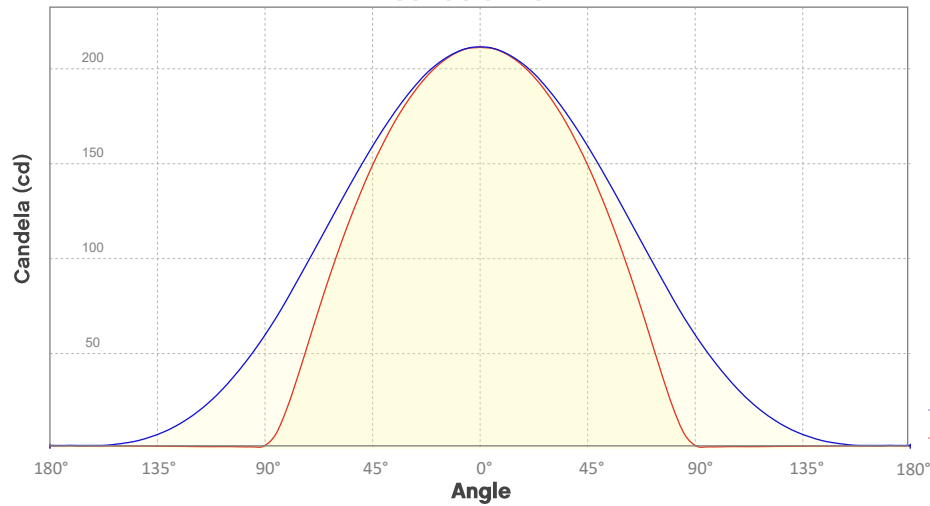
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 211           | 53            | 23            | 13            | 8             | 6             | 4             | 3             | 3             | 2             |
| <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             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 20            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 2800K – 3 HR

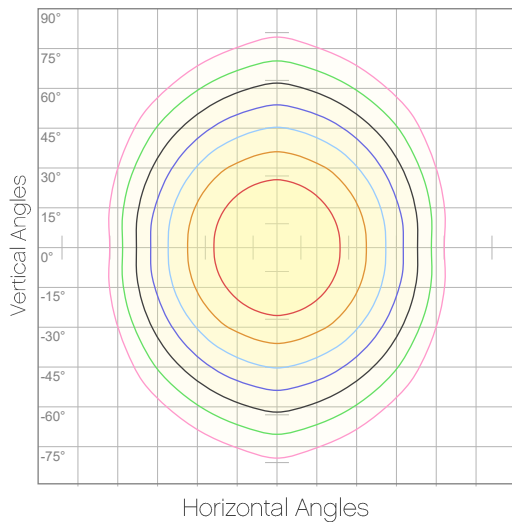
## Candela Plot



Beam Angle (50%): 127.3°  
 Field Angle (10%): 201.5°  
 Cutoff Angle (3%): 239.9°

— Horizontal Distribution  
 — Vertical Distribution

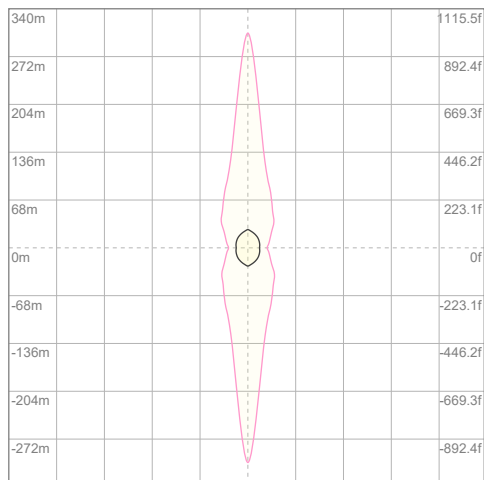
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 21 cd  |
| 20% | 42 cd  |
| 30% | 63 cd  |
| 40% | 85 cd  |
| 50% | 106 cd |
| 60% | 127 cd |
| 70% | 148 cd |
| 80% | 169 cd |
| 90% | 190 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 211 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 63.4m lx |
| 5%  | 0.106 lx |
| 10% | 0.211 lx |
| 30% | 0.634 lx |
| 50% | 1.06 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 2.11 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 2800K – 5 HR

## Report Summary

### Output

Total Lumens: 807 lm

Peak Intensity: 211 cd

Illuminance @ 5m: 8 lux

Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.6°

Vertical Beam Angle (50%): 137.8°

Horizontal Field Angle (10%): 161.7°

Vertical Field Angle (10%): 232.9°

Horizontal Cutoff Angle (3%): 174.5°

Vertical Cutoff Angle (3%): 279.9°

### Conditions

AC Supply: 124 V, 60 Hz

Power: n/a W

Current: 0.000 A

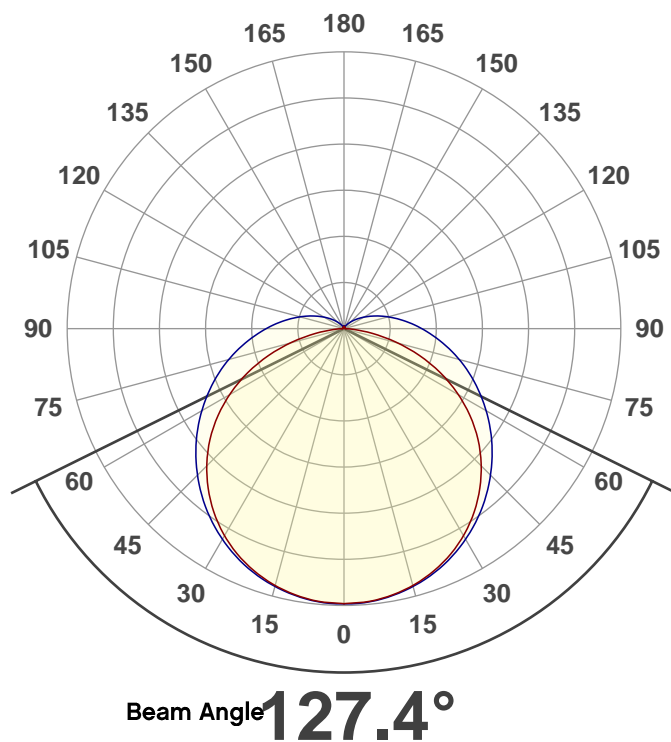
Power Factor: n/a



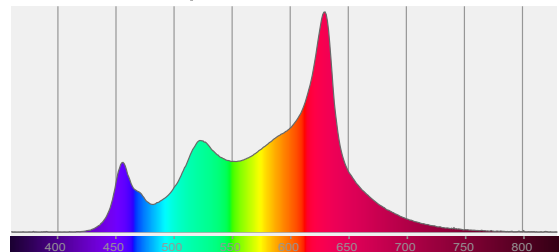
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

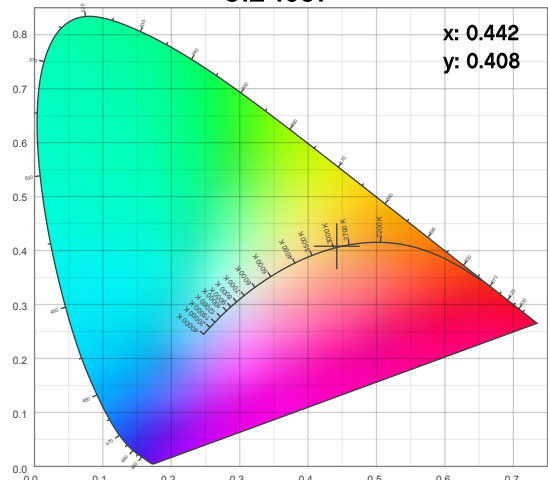
Angular Beam Distribution



Spectral Distribution



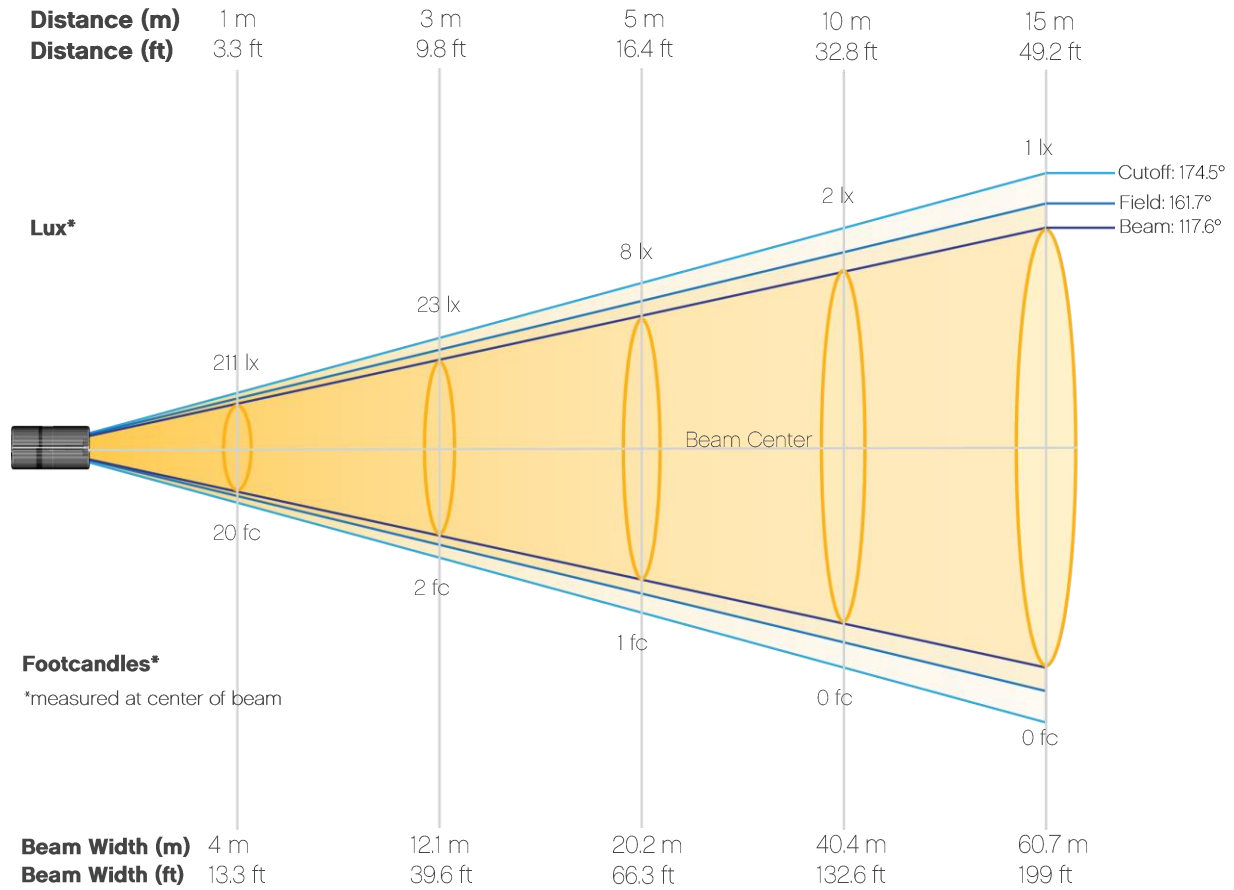
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 2800K – 5 HR

## Beam Details



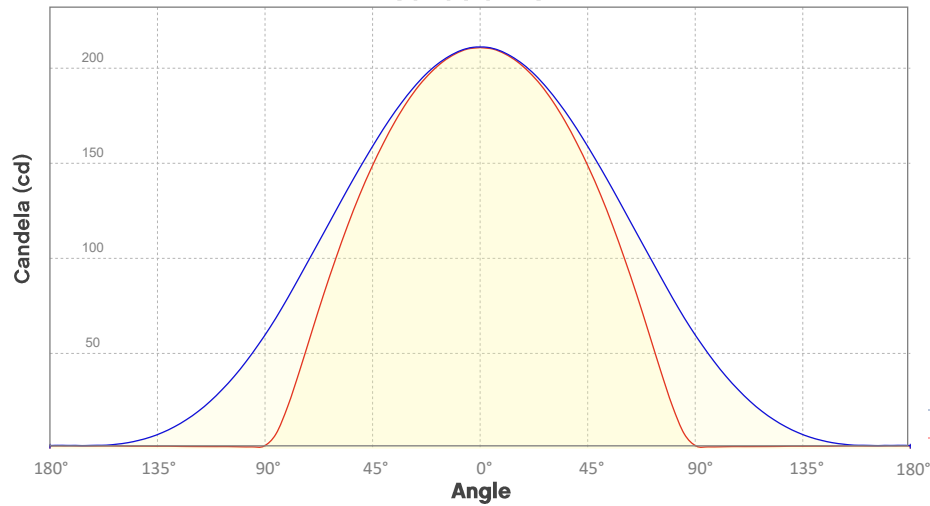
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 211           | 53            | 23            | 13            | 8             | 6             | 4             | 3             | 3             | 2             |
| <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             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 20            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 2800K – 5 HR

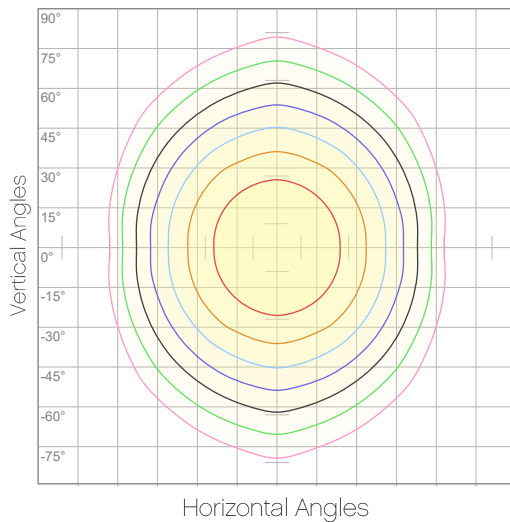
## Candela Plot



Beam Angle (50%): 127.4°  
 Field Angle (10%): 201.5°  
 Cutoff Angle (3%): 239.8°

— Horizontal Distribution  
 — Vertical Distribution

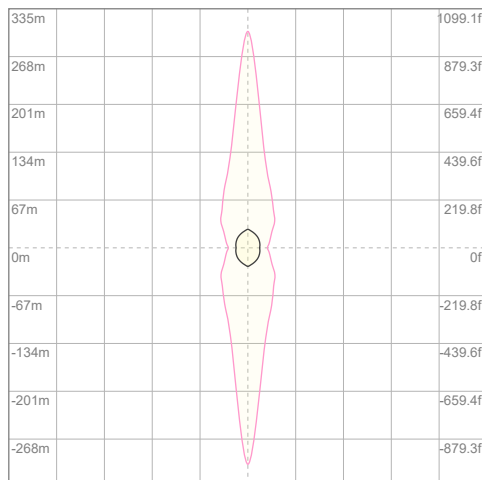
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 21 cd  |
| 20% | 42 cd  |
| 30% | 63 cd  |
| 40% | 84 cd  |
| 50% | 105 cd |
| 60% | 127 cd |
| 70% | 148 cd |
| 80% | 169 cd |
| 90% | 190 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 211 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 63.3m lx |
| 5%  | 0.105 lx |
| 10% | 0.211 lx |
| 30% | 0.633 lx |
| 50% | 1.05 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 2.11 lx

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

Mounting height: 10 meters / 33 feet



# Photometric Report

Well STX 180: Standard Optics – 2800K – 8 HR

## Report Summary

### Output

Total Lumens: 806 lm  
Peak Intensity: 211 cd  
Illuminance @ 5m: 8 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.7°  
Horizontal Field Angle (10%): 161.7°  
Vertical Field Angle (10%): 232.9°  
Horizontal Cutoff Angle (3%): 174.6°  
Vertical Cutoff Angle (3%): 279.9°

### Conditions

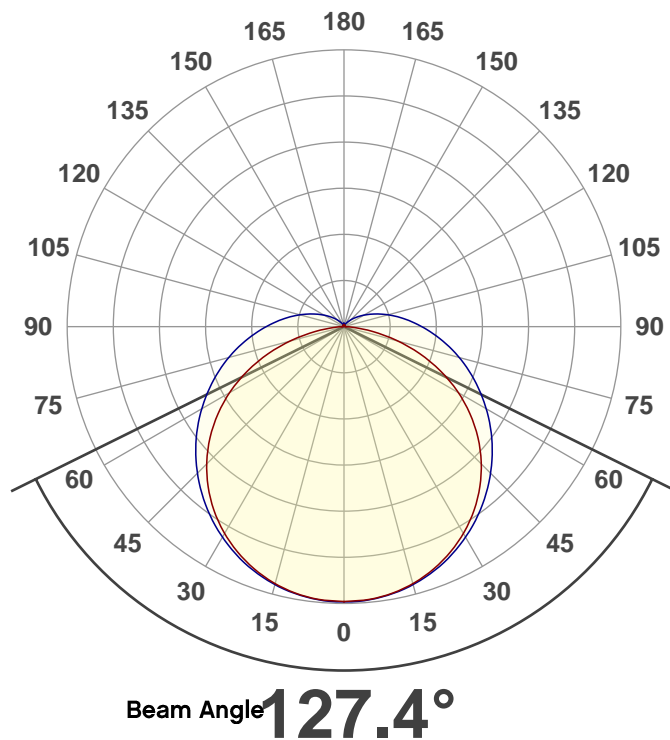
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



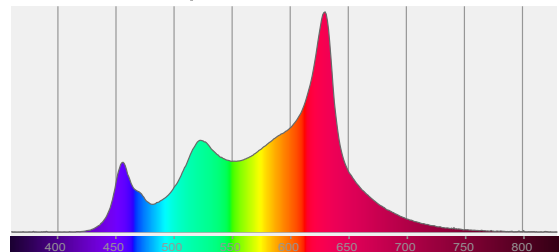
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

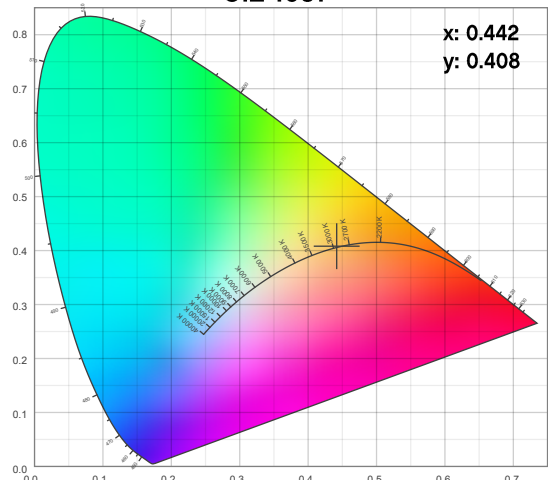
Angular Beam Distribution



Spectral Distribution



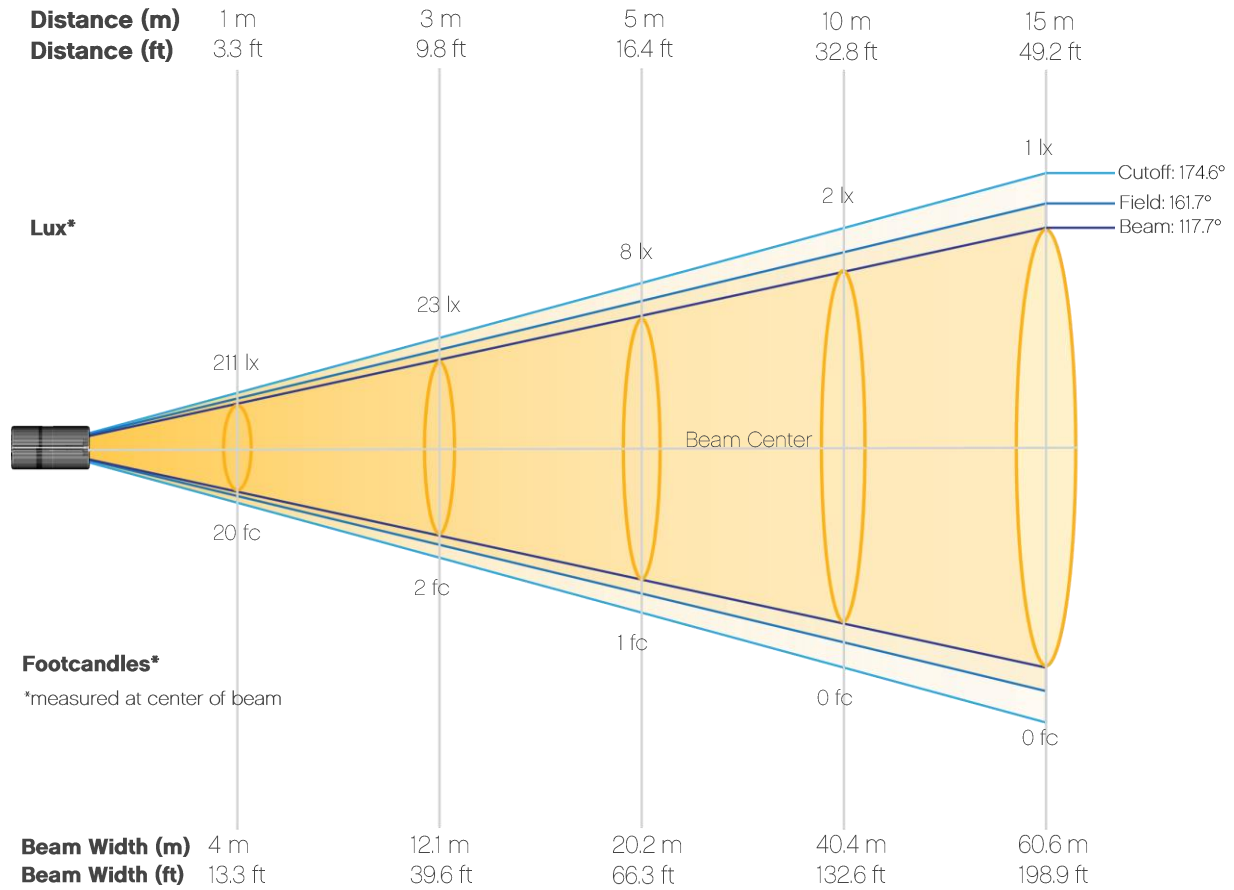
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 2800K – 8 HR

## Beam Details



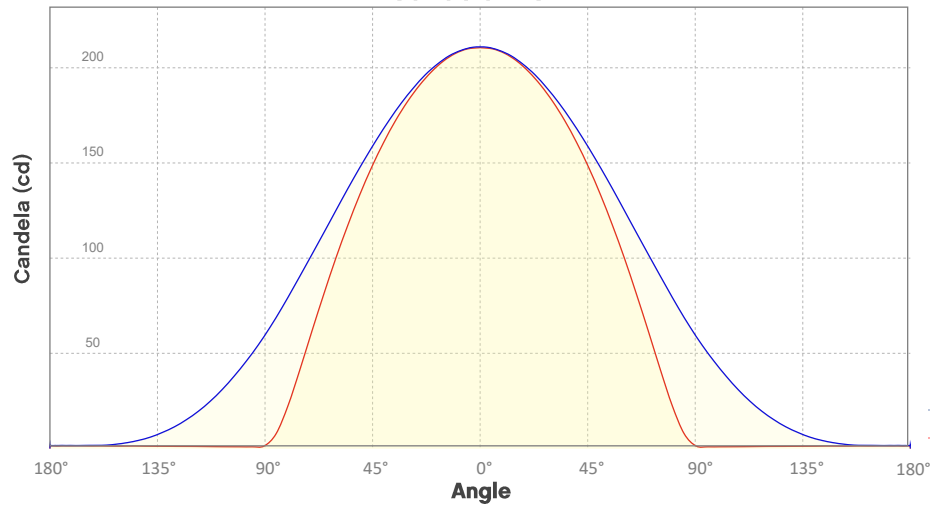
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 211           | 53            | 23            | 13            | 8             | 6             | 4             | 3             | 3             | 2             |
| <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             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 20            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 2800K – 8 HR

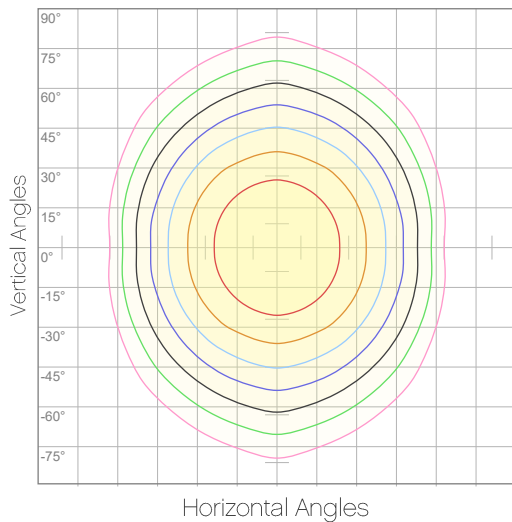
## Candela Plot



Beam Angle (50%): 127.4°  
 Field Angle (10%): 201.5°  
 Cutoff Angle (3%): 239.8°

— Horizontal Distribution  
 — Vertical Distribution

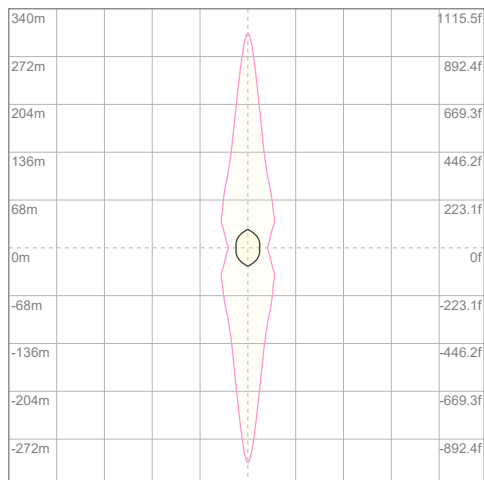
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 21 cd  |
| 20% | 42 cd  |
| 30% | 63 cd  |
| 40% | 84 cd  |
| 50% | 105 cd |
| 60% | 126 cd |
| 70% | 147 cd |
| 80% | 169 cd |
| 90% | 190 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 211 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 63.2m lx |
| 5%  | 0.105 lx |
| 10% | 0.211 lx |
| 30% | 0.632 lx |
| 50% | 1.05 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 2.11 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 2800K – 12 HR

## Report Summary

### Output

Total Lumens: 581 lm  
Peak Intensity: 152 cd  
Illuminance @ 5m: 6 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.6°  
Vertical Beam Angle (50%): 137.6°  
Horizontal Field Angle (10%): 161.7°  
Vertical Field Angle (10%): 232.6°  
Horizontal Cutoff Angle (3%): 174.3°  
Vertical Cutoff Angle (3%): 279.5°

### Conditions

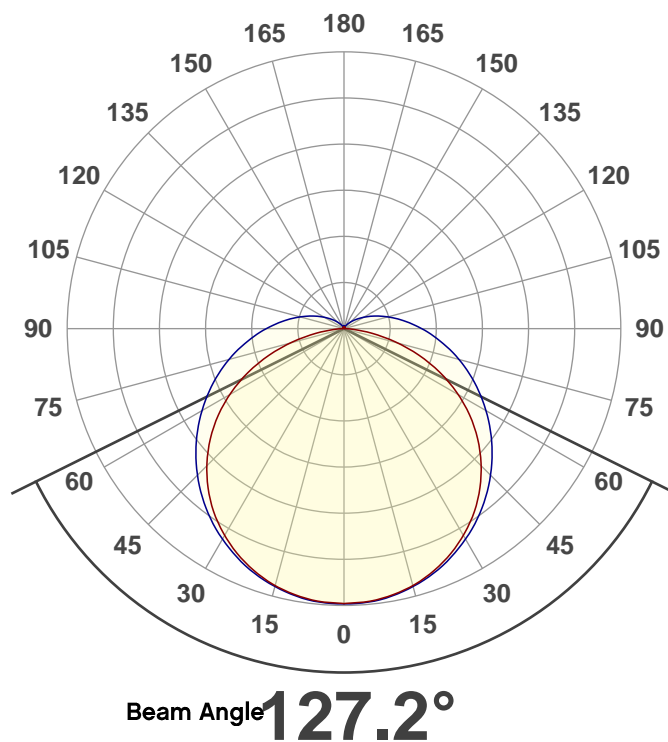
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



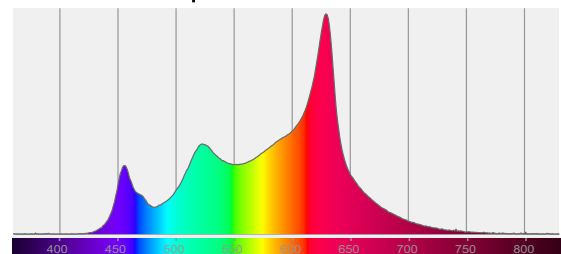
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

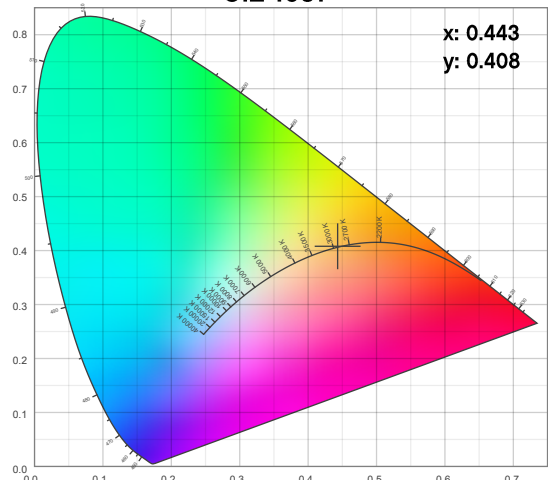
Angular Beam Distribution



Spectral Distribution



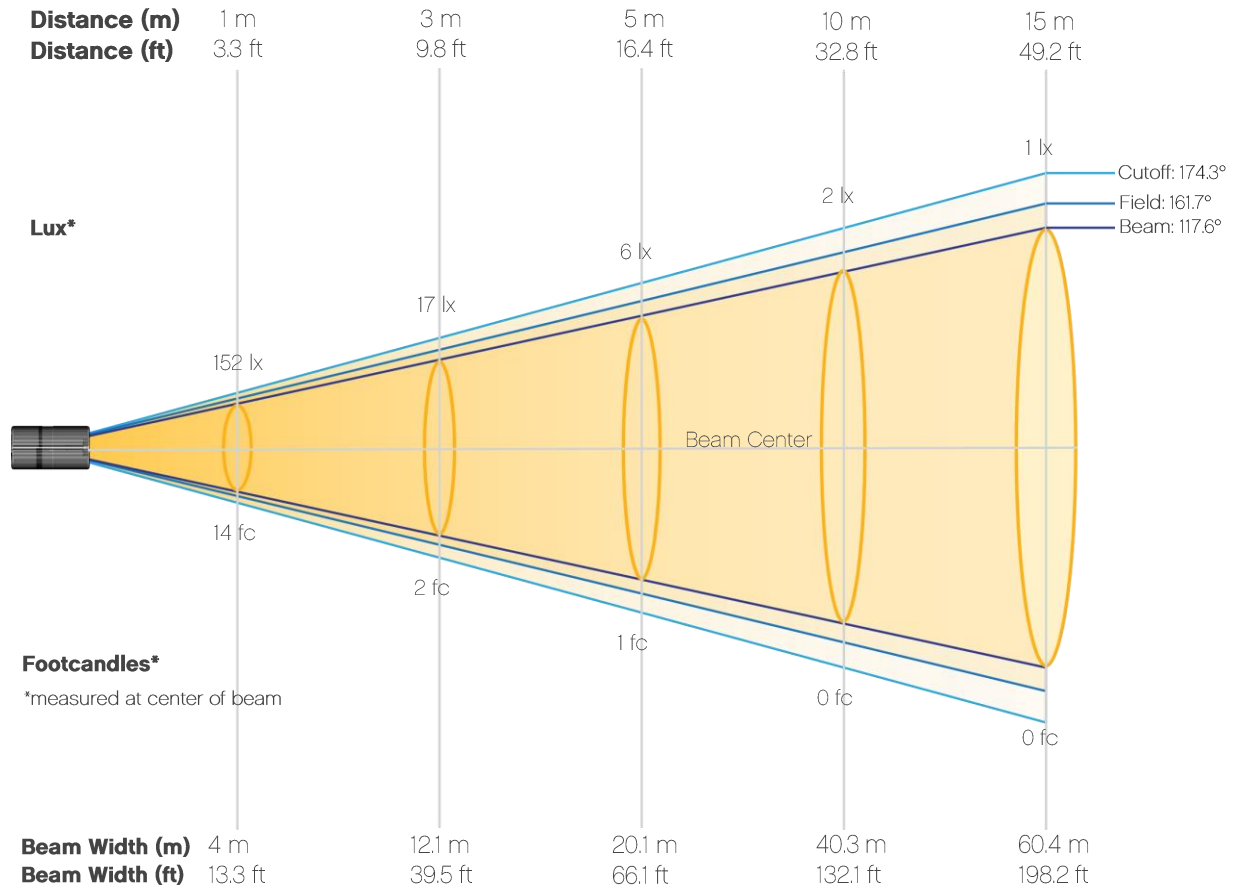
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 2800K – 12 HR

## Beam Details



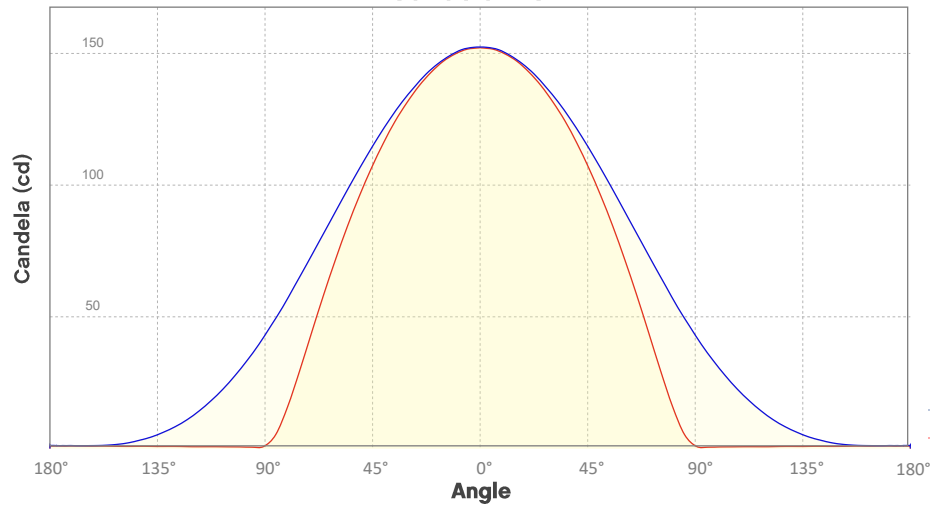
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 152           | 38            | 17            | 10            | 6             | 4             | 3             | 2             | 2             | 2             |
| <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             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 0             | 0             | 0             |
| <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              | 14            | 4             | 2             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 2800K – 12 HR

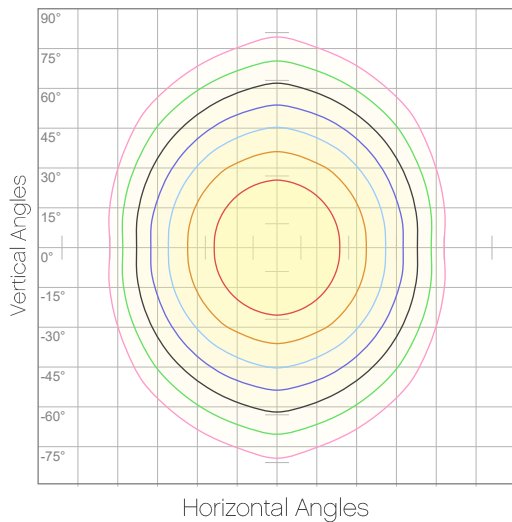
## Candela Plot



Beam Angle (50%): 127.2°  
 Field Angle (10%): 201.3°  
 Cutoff Angle (3%): 239.5°

— Horizontal Distribution  
 — Vertical Distribution

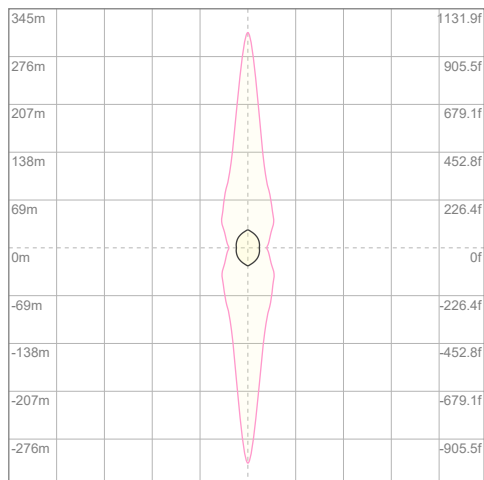
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 15 cd  |
| 20% | 30 cd  |
| 30% | 46 cd  |
| 40% | 61 cd  |
| 50% | 76 cd  |
| 60% | 91 cd  |
| 70% | 107 cd |
| 80% | 122 cd |
| 90% | 137 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 152 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 45.7m lx |
| 5%  | 76.1m lx |
| 10% | 0.152 lx |
| 30% | 0.457 lx |
| 50% | 0.761 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.52 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 3200K – 3 HR

## Report Summary

### Output

Total Lumens: 830 lm  
Peak Intensity: 217 cd  
Illuminance @ 5m: 9 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.8°  
Horizontal Field Angle (10%): 161.7°  
Vertical Field Angle (10%): 233°  
Horizontal Cutoff Angle (3%): 174.6°  
Vertical Cutoff Angle (3%): 280.2°

### Conditions

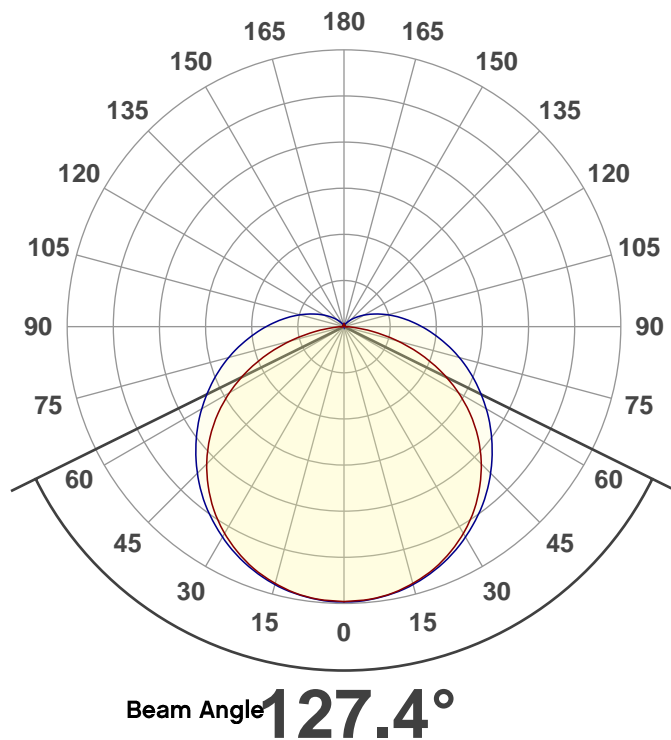
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



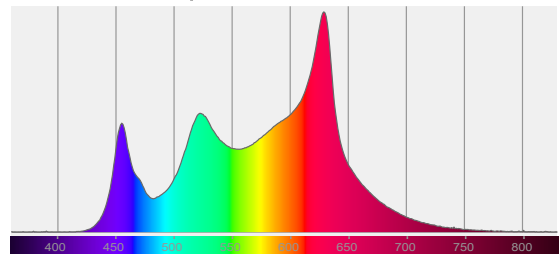
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## Overall Measurement

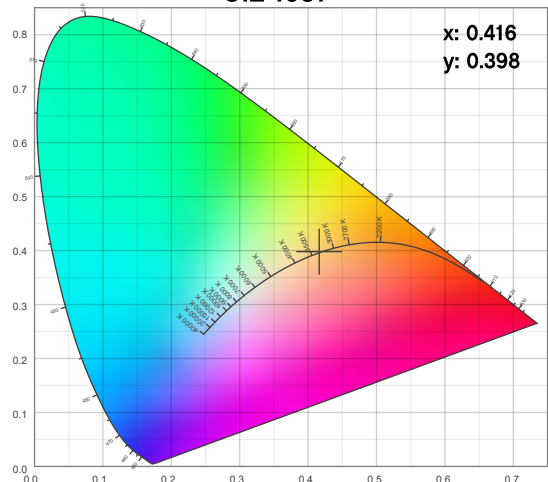
Angular Beam Distribution



Spectral Distribution



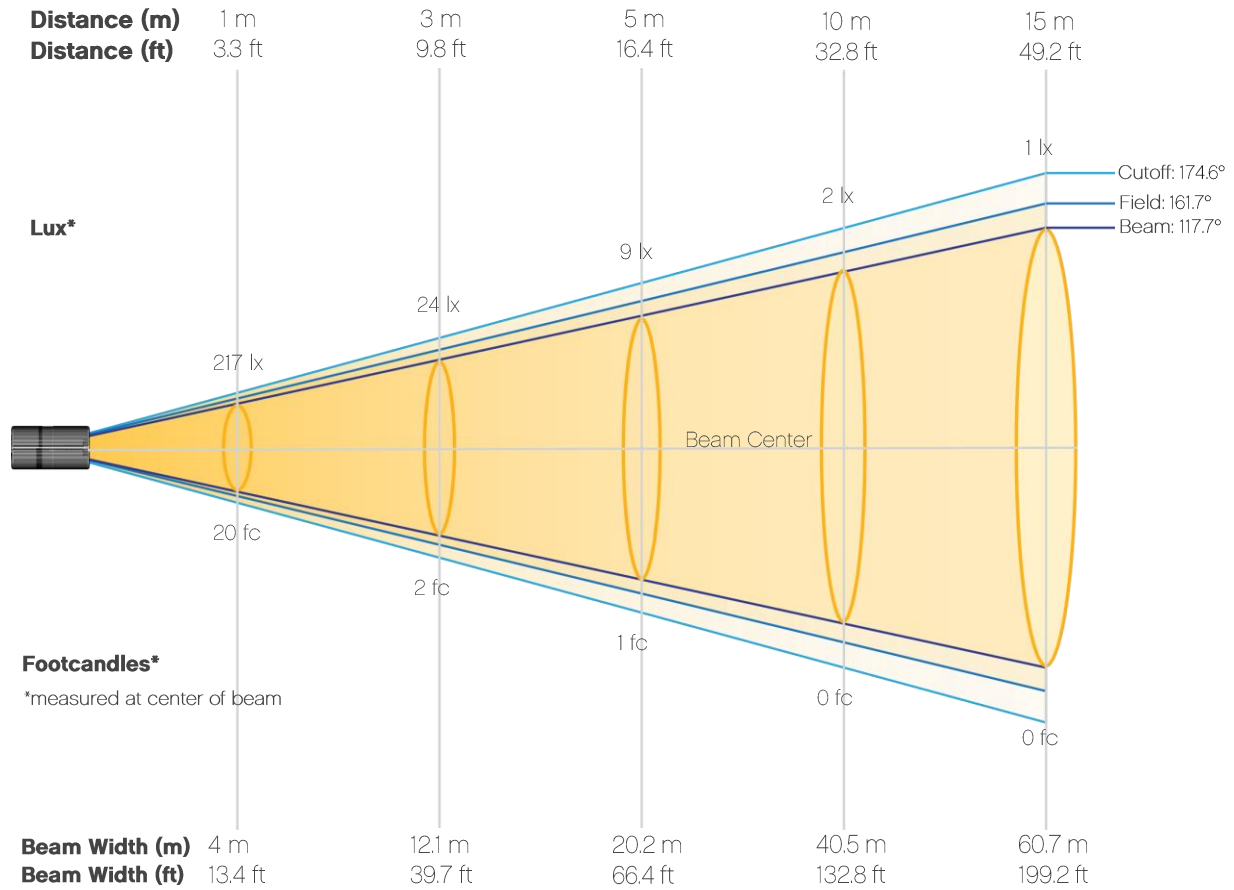
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 3200K – 3 HR

## Beam Details



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

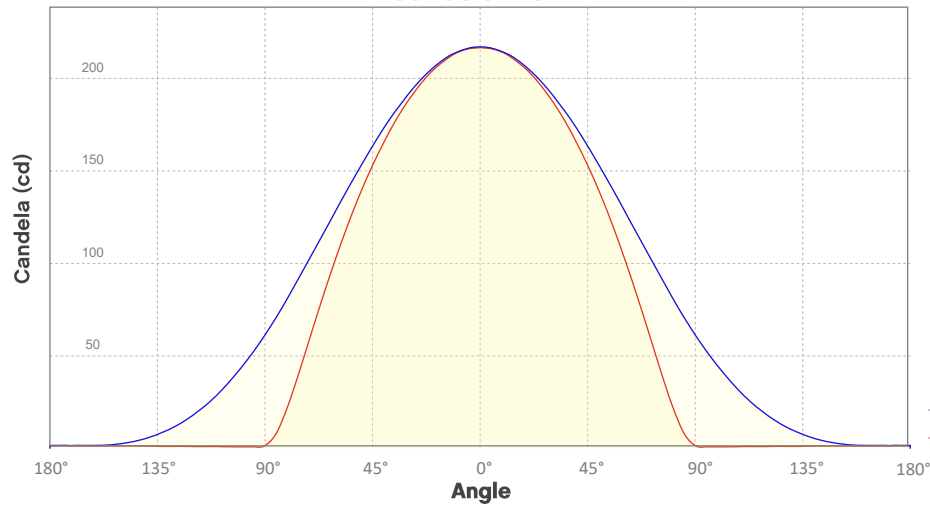
|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 217           | 54            | 24            | 14            | 9             | 6             | 4             | 3             | 3             | 2             |
| <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             | 2             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 20            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |



# Photometric Report

Well STX 180: Standard Optics – 3200K – 3 HR

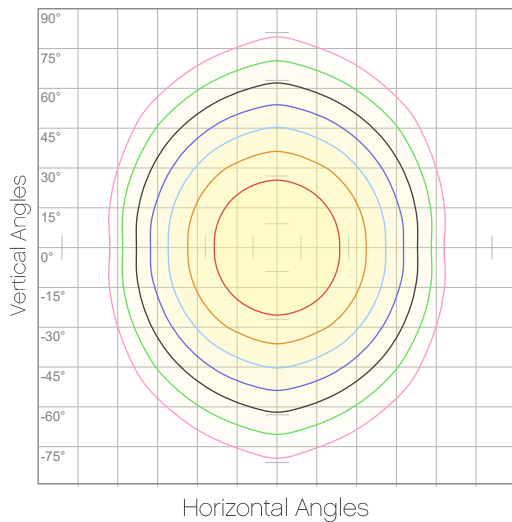
## Candela Plot



Beam Angle (50%): 127.4°  
 Field Angle (10%): 201.5°  
 Cutoff Angle (3%): 239.8°

— Horizontal Distribution  
 — Vertical Distribution

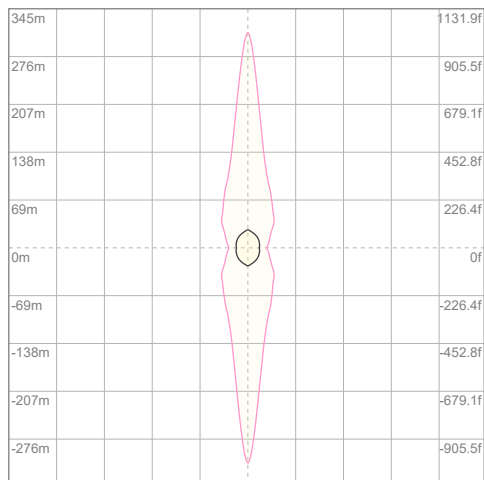
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 22 cd  |
| 20% | 43 cd  |
| 30% | 65 cd  |
| 40% | 87 cd  |
| 50% | 108 cd |
| 60% | 130 cd |
| 70% | 152 cd |
| 80% | 173 cd |
| 90% | 195 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 217 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 65.0m lx |
| 5%  | 0.108 lx |
| 10% | 0.217 lx |
| 30% | 0.650 lx |
| 50% | 1.08 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 2.17 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 3200K – 5 HR

## Report Summary

### Output

Total Lumens: 829 lm  
Peak Intensity: 217 cd  
Illuminance @ 5m: 9 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.7°  
Horizontal Field Angle (10%): 161.7°  
Vertical Field Angle (10%): 233°  
Horizontal Cutoff Angle (3%): 174.6°  
Vertical Cutoff Angle (3%): 279.9°

### Conditions

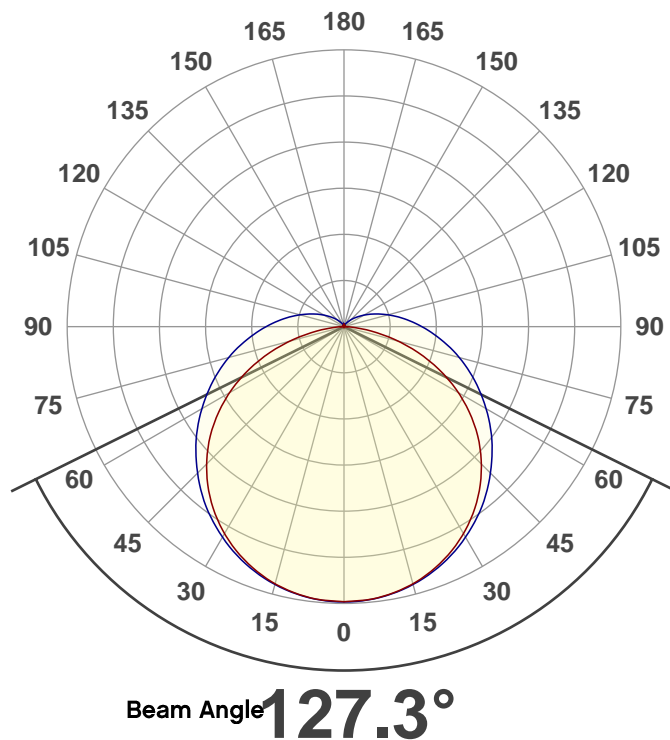
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



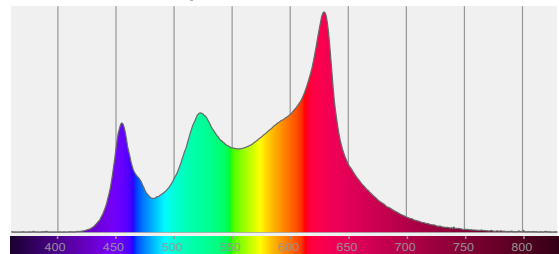
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## Overall Measurement

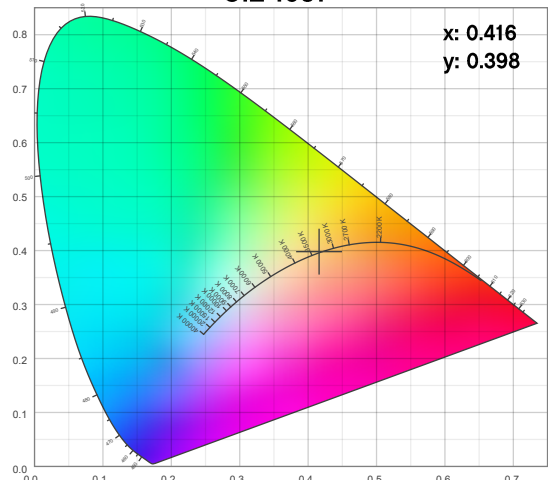
Angular Beam Distribution



Spectral Distribution



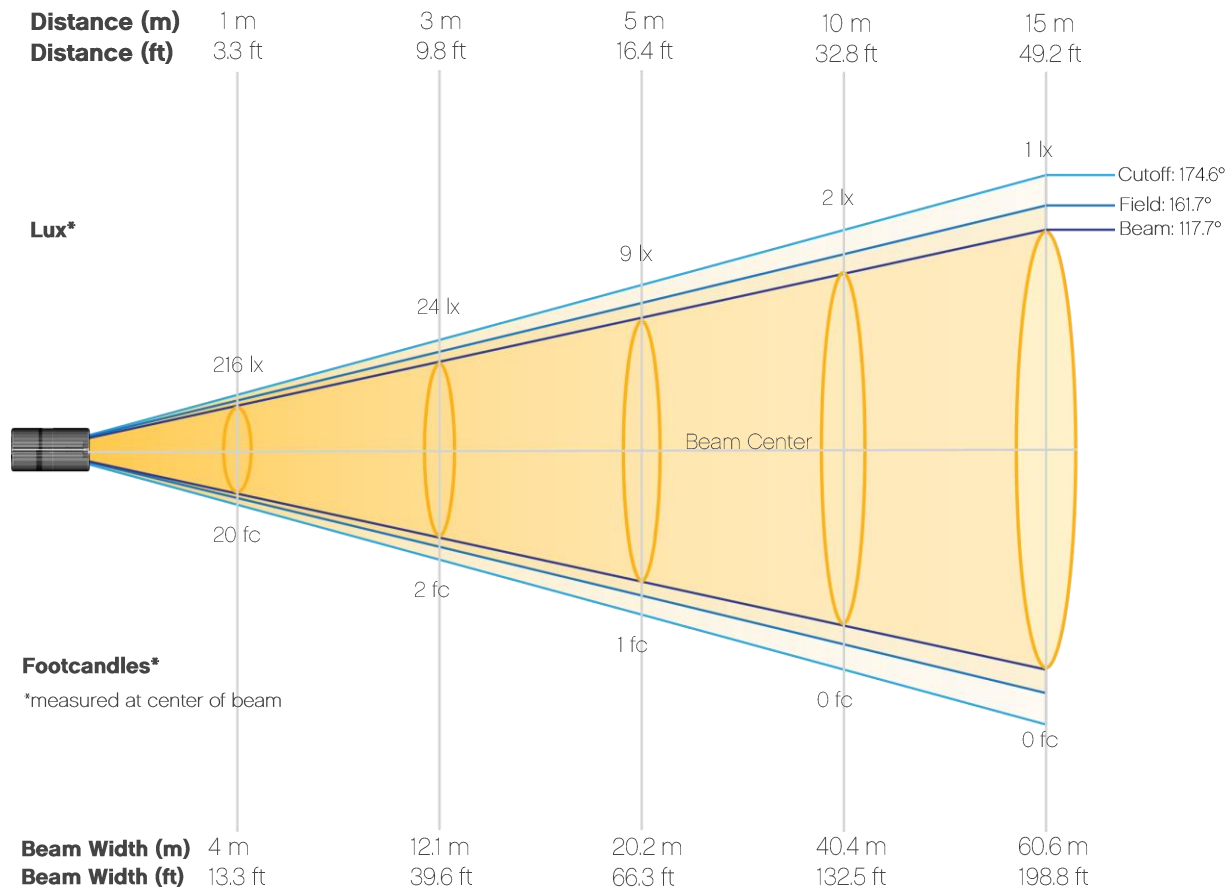
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 3200K – 5 HR

## Beam Details



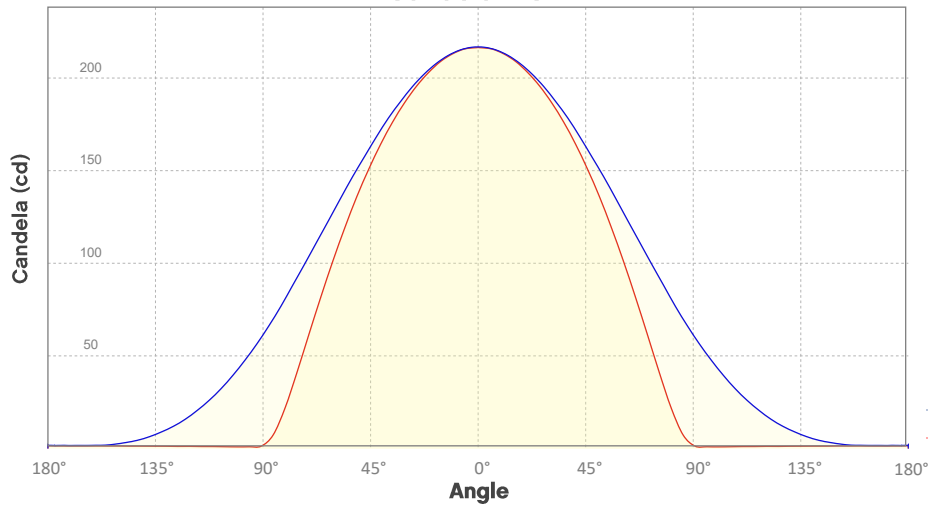
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 216           | 54            | 24            | 14            | 9             | 6             | 4             | 3             | 3             | 2             |
| <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             | 2             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 20            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 3200K – 5 HR

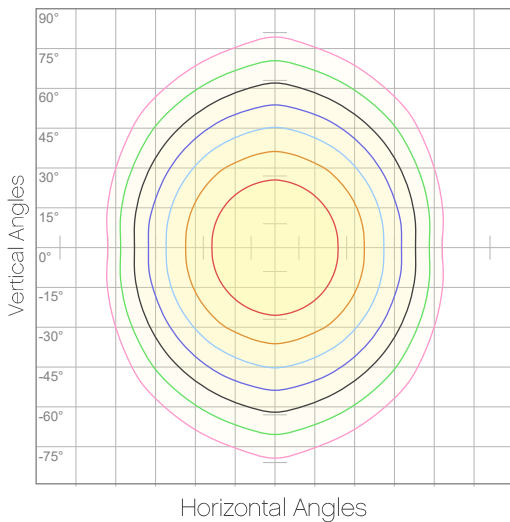
## Candela Plot



Beam Angle (50%): 127.3°  
Field Angle (10%): 201.5°  
Cutoff Angle (3%): 239.8°

— Horizontal Distribution  
— Vertical Distribution

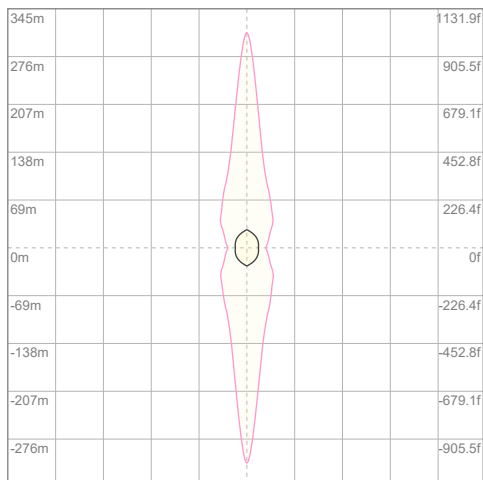
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 22 cd  |
| 20% | 43 cd  |
| 30% | 65 cd  |
| 40% | 87 cd  |
| 50% | 108 cd |
| 60% | 130 cd |
| 70% | 152 cd |
| 80% | 173 cd |
| 90% | 195 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 216 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 64.9m lx |
| 5%  | 0.108 lx |
| 10% | 0.216 lx |
| 30% | 0.649 lx |
| 50% | 1.08 lx  |

Conditions:  
Number of c-planes: 8  
Lux at center: 2.16 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 3200K – 8 HR

## Report Summary

### Output

Total Lumens: 827 lm  
Peak Intensity: 216 cd  
Illuminance @ 5m: 9 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.8°  
Horizontal Field Angle (10%): 161.7°  
Vertical Field Angle (10%): 232.9°  
Horizontal Cutoff Angle (3%): 174.6°  
Vertical Cutoff Angle (3%): 279.7°

### Conditions

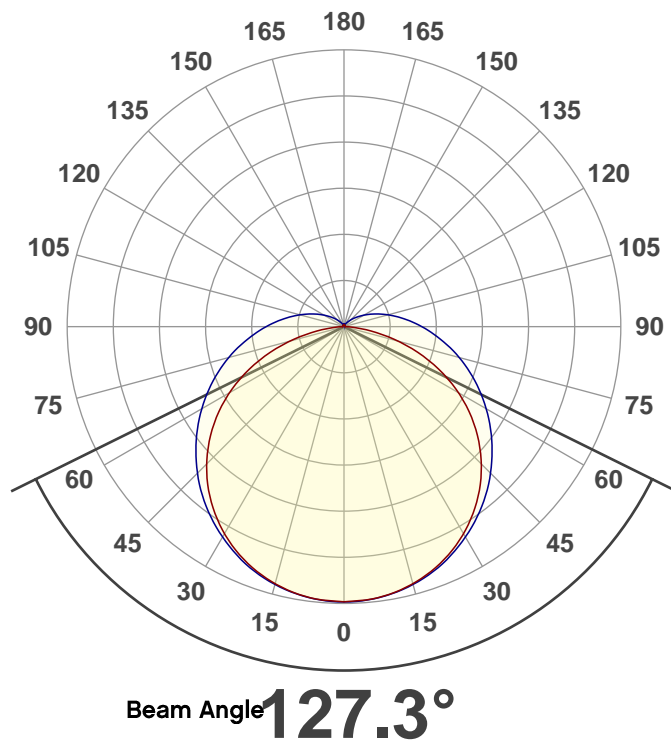
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



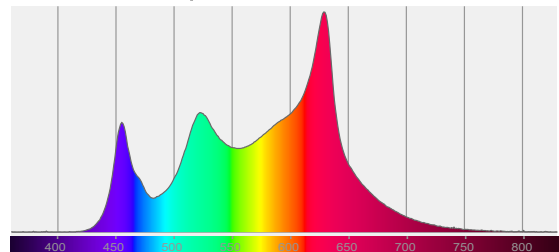
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## Overall Measurement

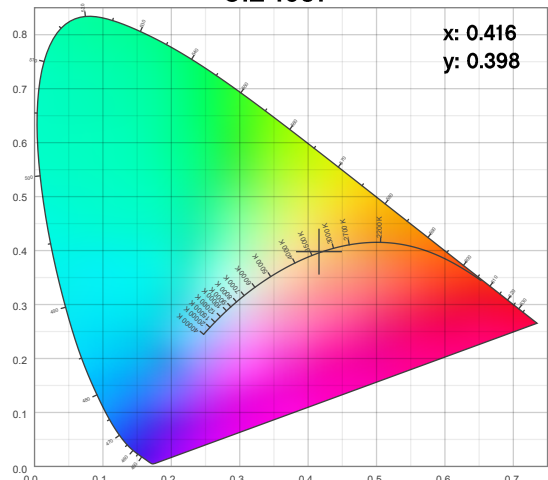
Angular Beam Distribution



Spectral Distribution



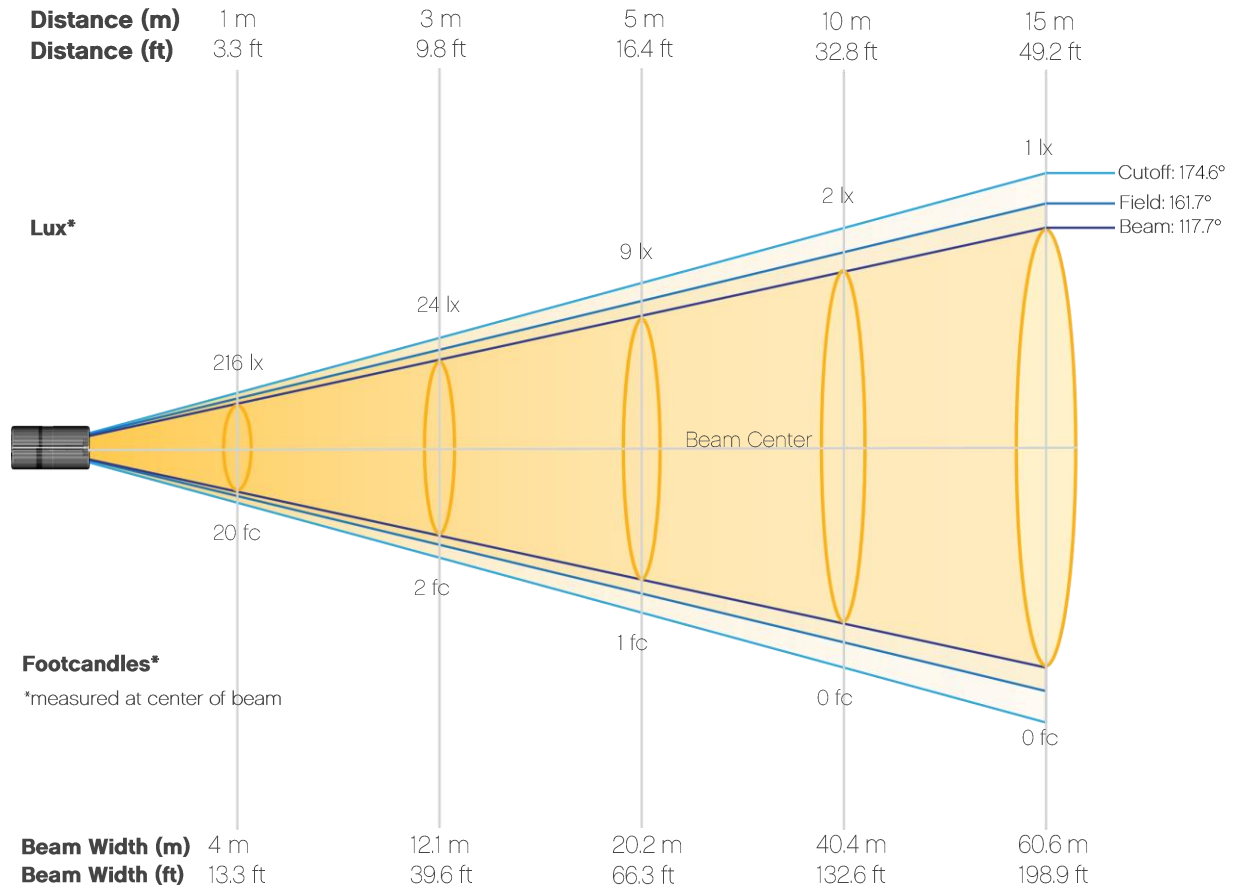
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 3200K – 8 HR

## Beam Details



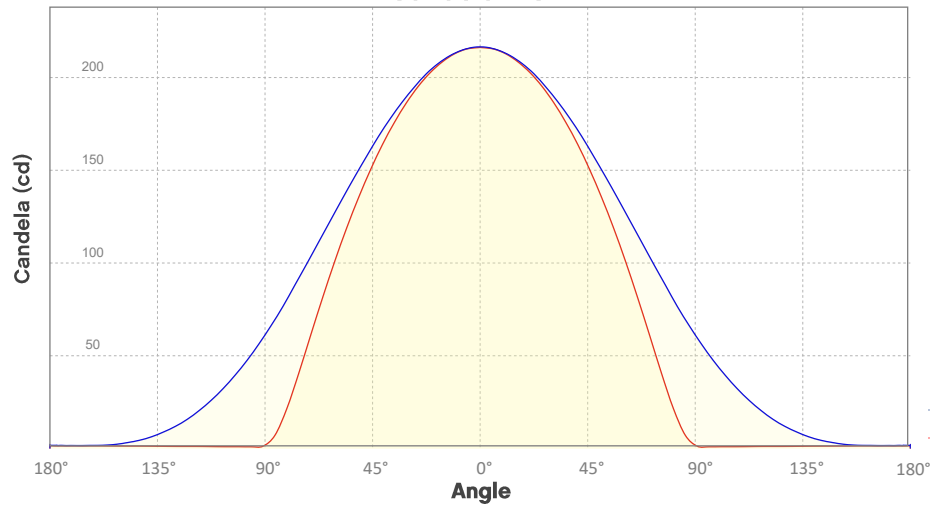
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 216           | 54            | 24            | 14            | 9             | 6             | 4             | 3             | 3             | 2             |
| <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             | 2             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 20            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 3200K – 8 HR

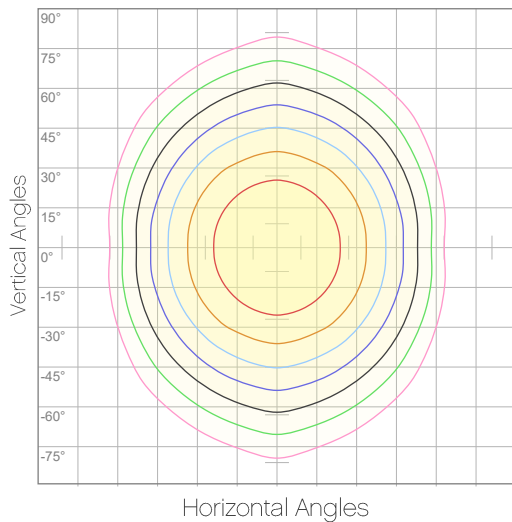
## Candela Plot



Beam Angle (50%): 127.3°  
 Field Angle (10%): 201.5°  
 Cutoff Angle (3%): 239.8°

— Horizontal Distribution  
 — Vertical Distribution

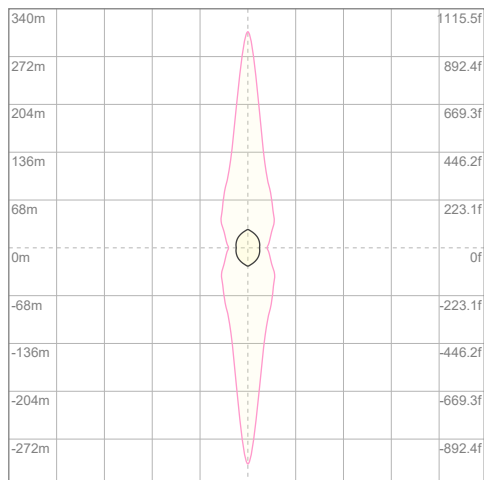
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 22 cd  |
| 20% | 43 cd  |
| 30% | 65 cd  |
| 40% | 86 cd  |
| 50% | 108 cd |
| 60% | 130 cd |
| 70% | 151 cd |
| 80% | 173 cd |
| 90% | 195 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 216 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 64.8m lx |
| 5%  | 0.108 lx |
| 10% | 0.216 lx |
| 30% | 0.648 lx |
| 50% | 1.08 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 2.16 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 3200K – 12 HR

## Report Summary

### Output

Total Lumens: 504 lm  
Peak Intensity: 132 cd  
Illuminance @ 5m: 5 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.8°  
Horizontal Field Angle (10%): 161.7°  
Vertical Field Angle (10%): 232.9°  
Horizontal Cutoff Angle (3%): 173.8°  
Vertical Cutoff Angle (3%): 279.4°

### Conditions

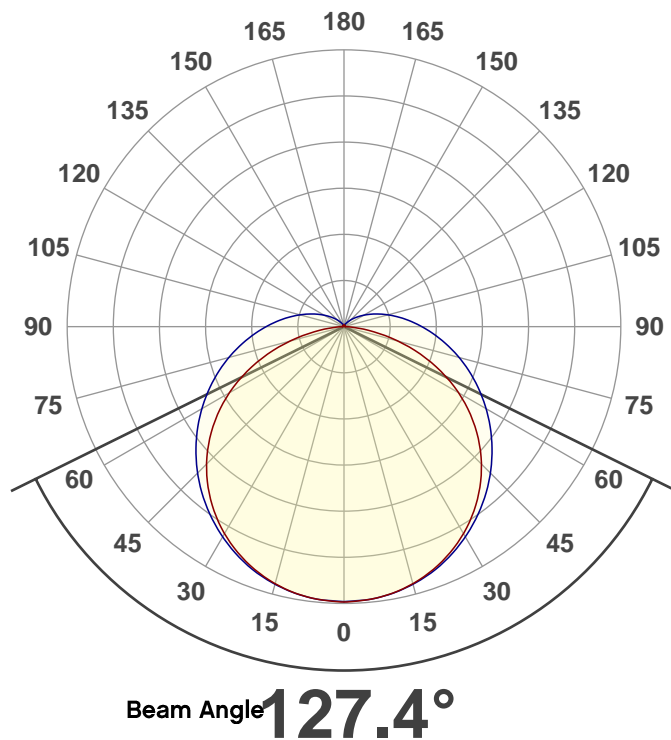
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



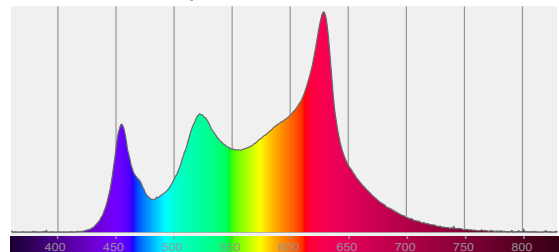
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

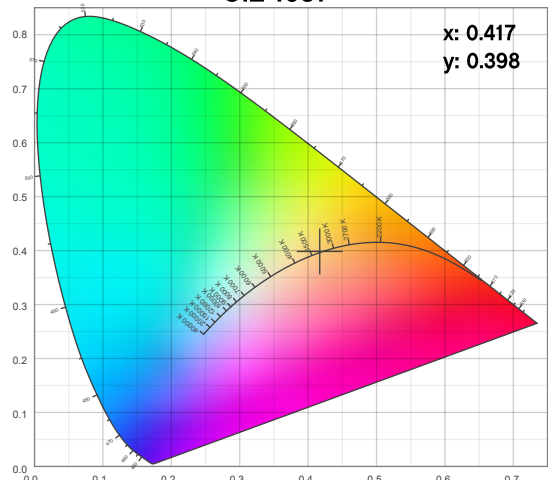
### Angular Beam Distribution



### Spectral Distribution



### CIE 1931

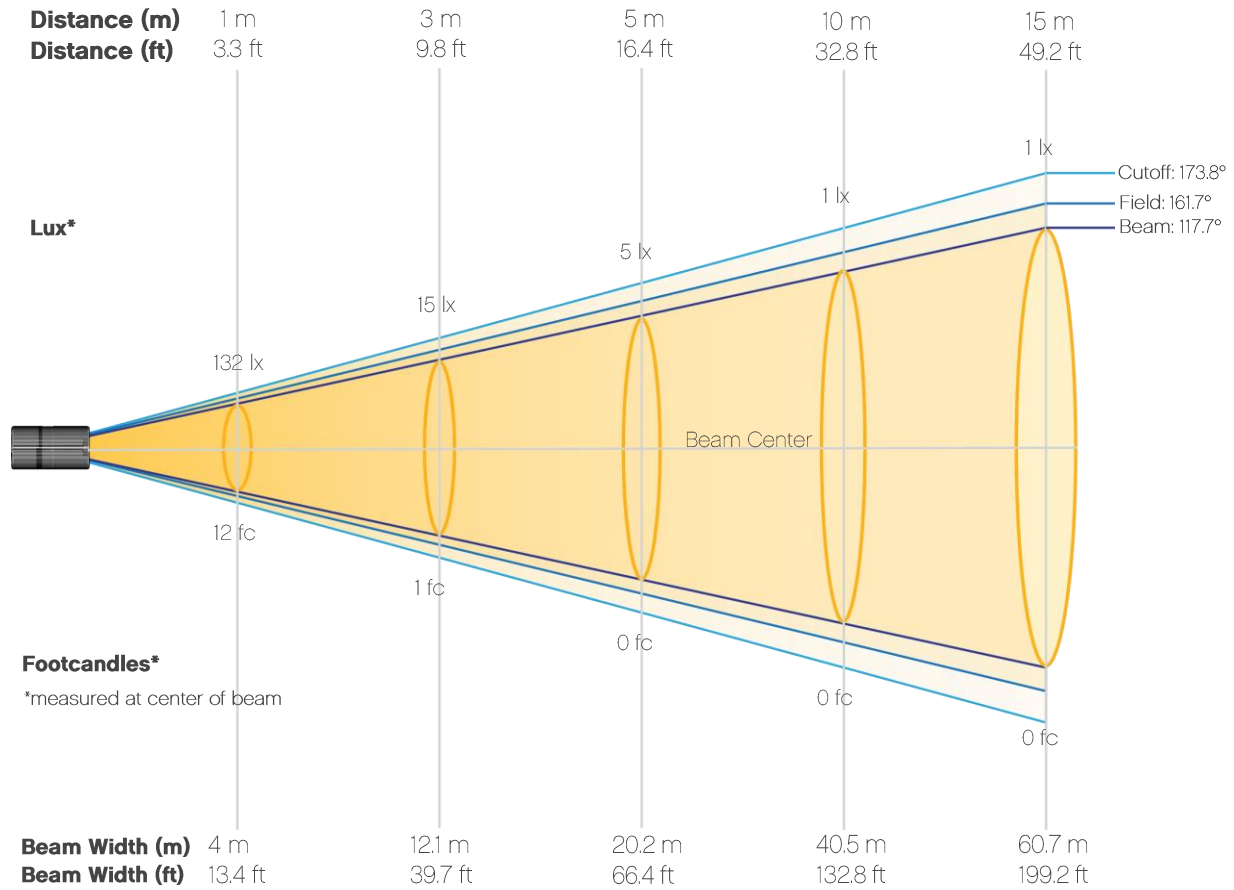




# Photometric Report

Well STX 180: Standard Optics – 3200K – 12 HR

## Beam Details

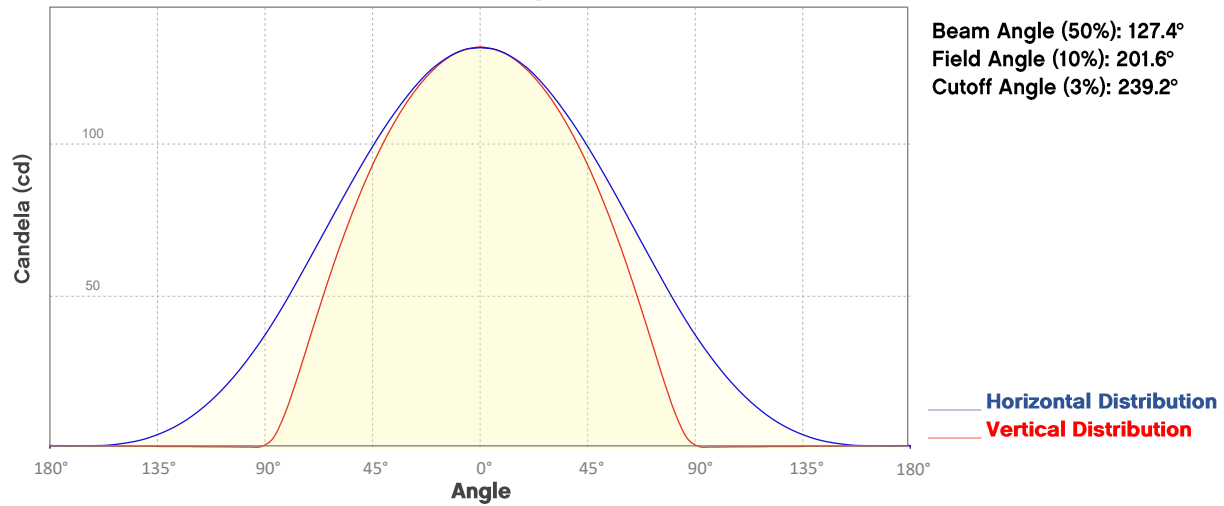


### Beam Illuminances from 1-20m (3.3-65.6ft)

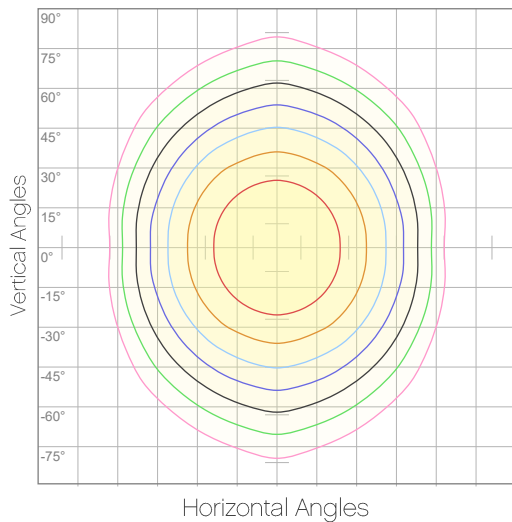
|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 132           | 33            | 15            | 8             | 5             | 4             | 3             | 2             | 2             | 1             |
| <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             | 1             | 1             | 1             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 12            | 3             | 1             | 1             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 3200K – 12 HR  
Plot



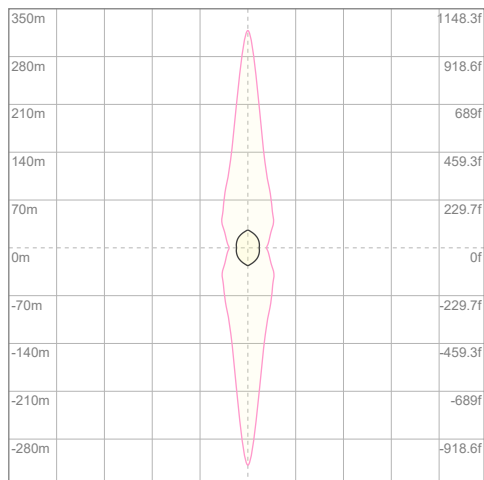
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 13 cd  |
| 20% | 26 cd  |
| 30% | 39 cd  |
| 40% | 53 cd  |
| 50% | 66 cd  |
| 60% | 79 cd  |
| 70% | 92 cd  |
| 80% | 105 cd |
| 90% | 118 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 132 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 39.5m lx |
| 5%  | 65.8m lx |
| 10% | 0.132 lx |
| 30% | 0.395 lx |
| 50% | 0.658 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.32 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 4000K – 3 HR

## Report Summary

### Output

Total Lumens: 863 lm  
Peak Intensity: 225 cd  
Illuminance @ 5m: 9 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.8°  
Horizontal Field Angle (10%): 161.7°  
Vertical Field Angle (10%): 232.9°  
Horizontal Cutoff Angle (3%): 174.6°  
Vertical Cutoff Angle (3%): 280°

### Conditions

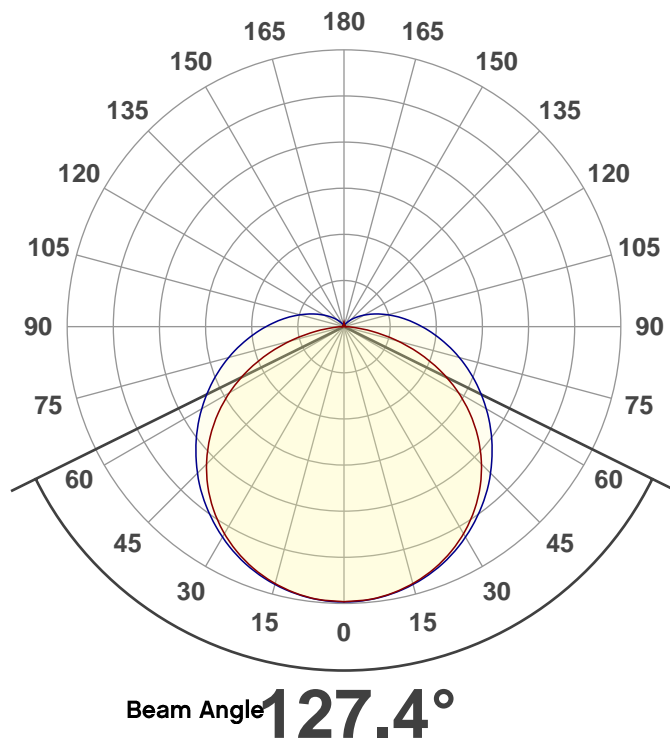
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



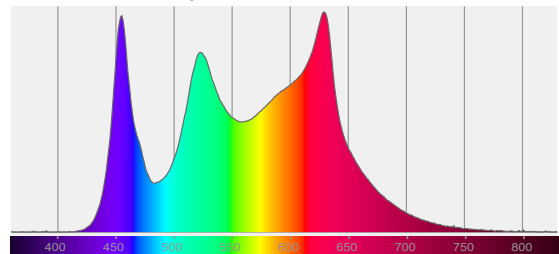
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

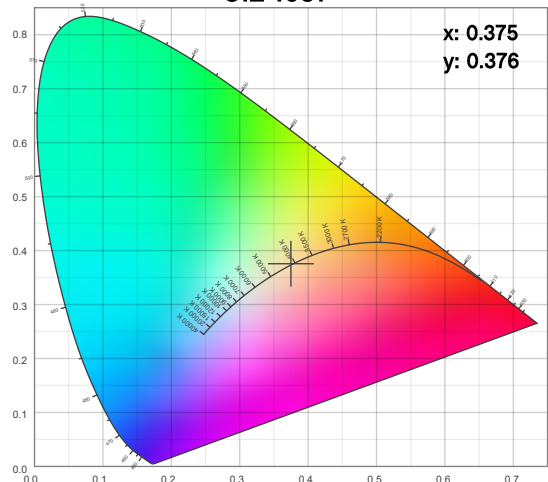
### Angular Beam Distribution



### Spectral Distribution



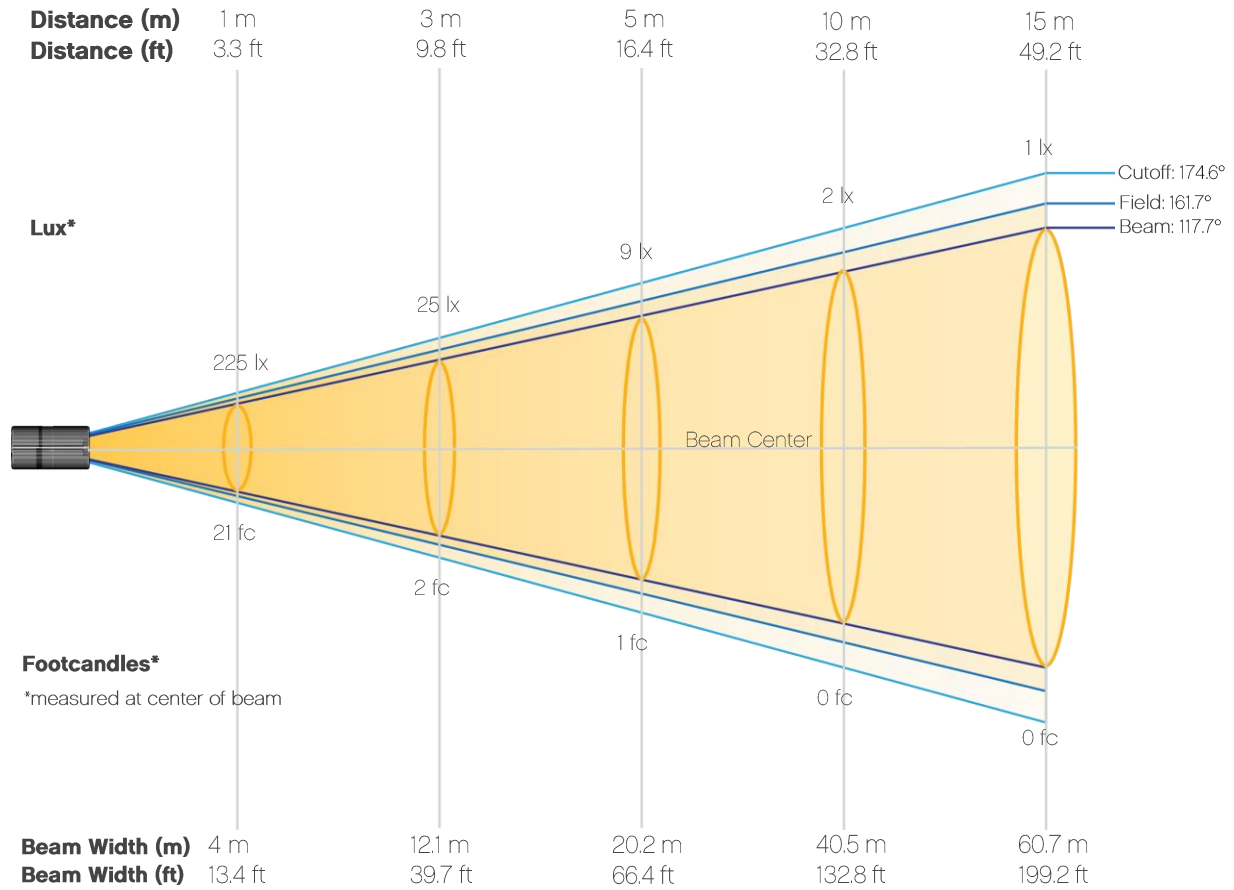
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 4000K – 3 HR

## Beam Details



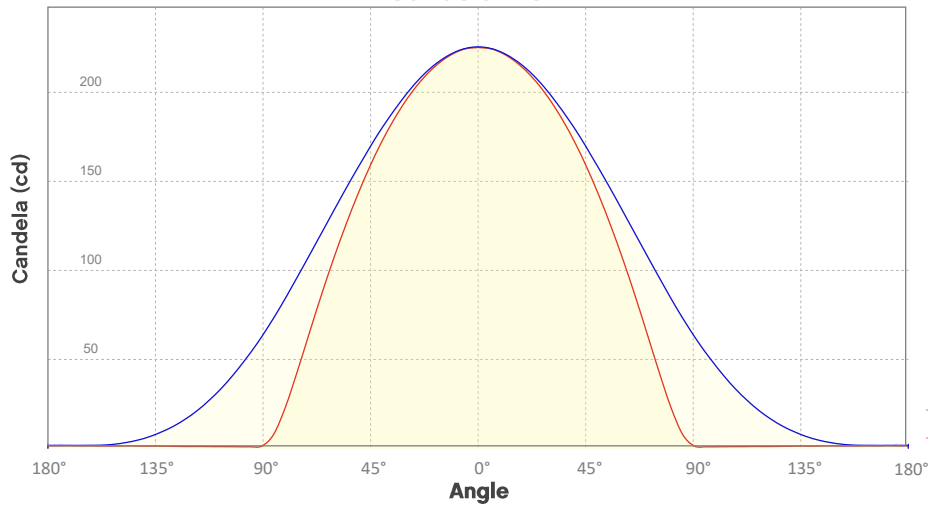
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 225           | 56            | 25            | 14            | 9             | 6             | 5             | 4             | 3             | 2             |
| <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             | 2             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 21            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 4000K – 3 HR

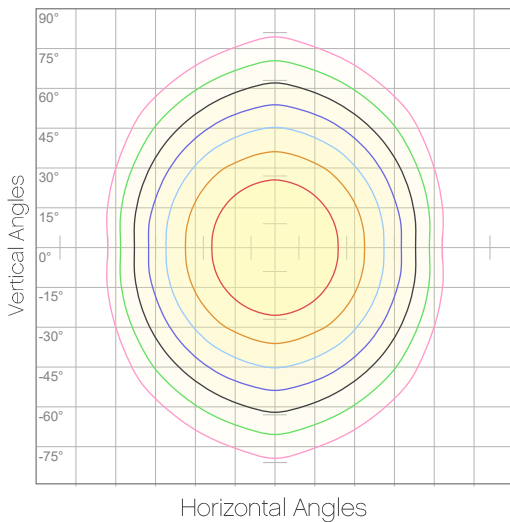
## Candela Plot



Beam Angle (50%): 127.4°  
 Field Angle (10%): 201.6°  
 Cutoff Angle (3%): 239.9°

— Horizontal Distribution  
 — Vertical Distribution

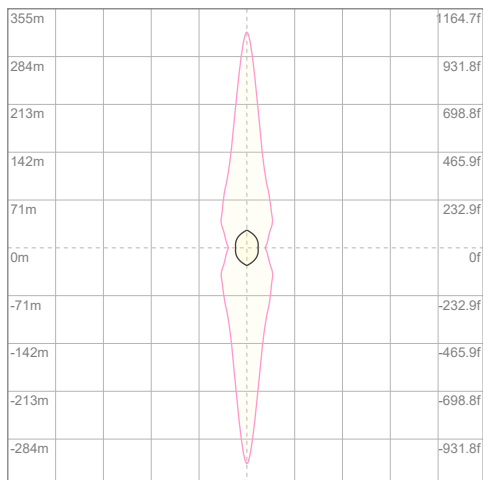
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 23 cd  |
| 20% | 45 cd  |
| 30% | 68 cd  |
| 40% | 90 cd  |
| 50% | 113 cd |
| 60% | 135 cd |
| 70% | 158 cd |
| 80% | 180 cd |
| 90% | 203 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 225 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 67.5 lx  |
| 5%  | 0.113 lx |
| 10% | 0.225 lx |
| 30% | 0.675 lx |
| 50% | 1.13 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 2.25 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 4000K – 5 HR

## Report Summary

### Output

Total Lumens: 862 lm  
Peak Intensity: 225 cd  
Illuminance @ 5m: 9 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 137.9°  
Horizontal Field Angle (10%): 162.2°  
Vertical Field Angle (10%): 232.9°  
Horizontal Cutoff Angle (3%): 175.2°  
Vertical Cutoff Angle (3%): 280.2°

### Conditions

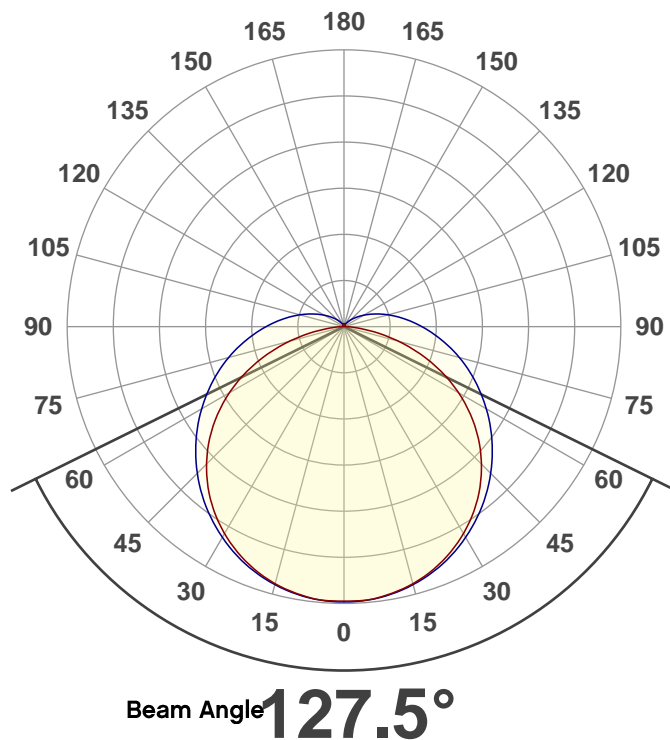
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



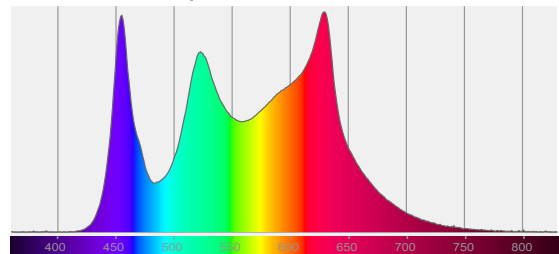
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

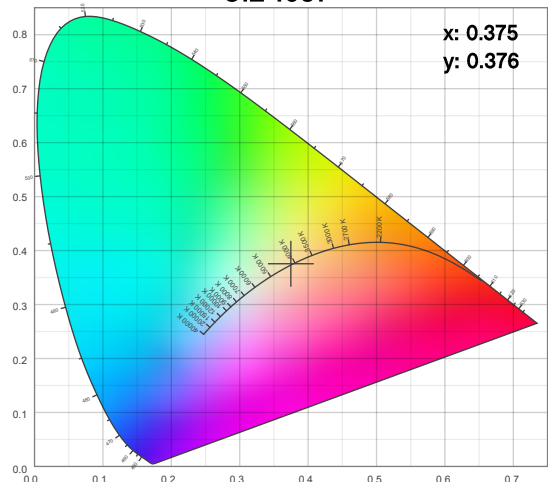
Angular Beam Distribution



Spectral Distribution



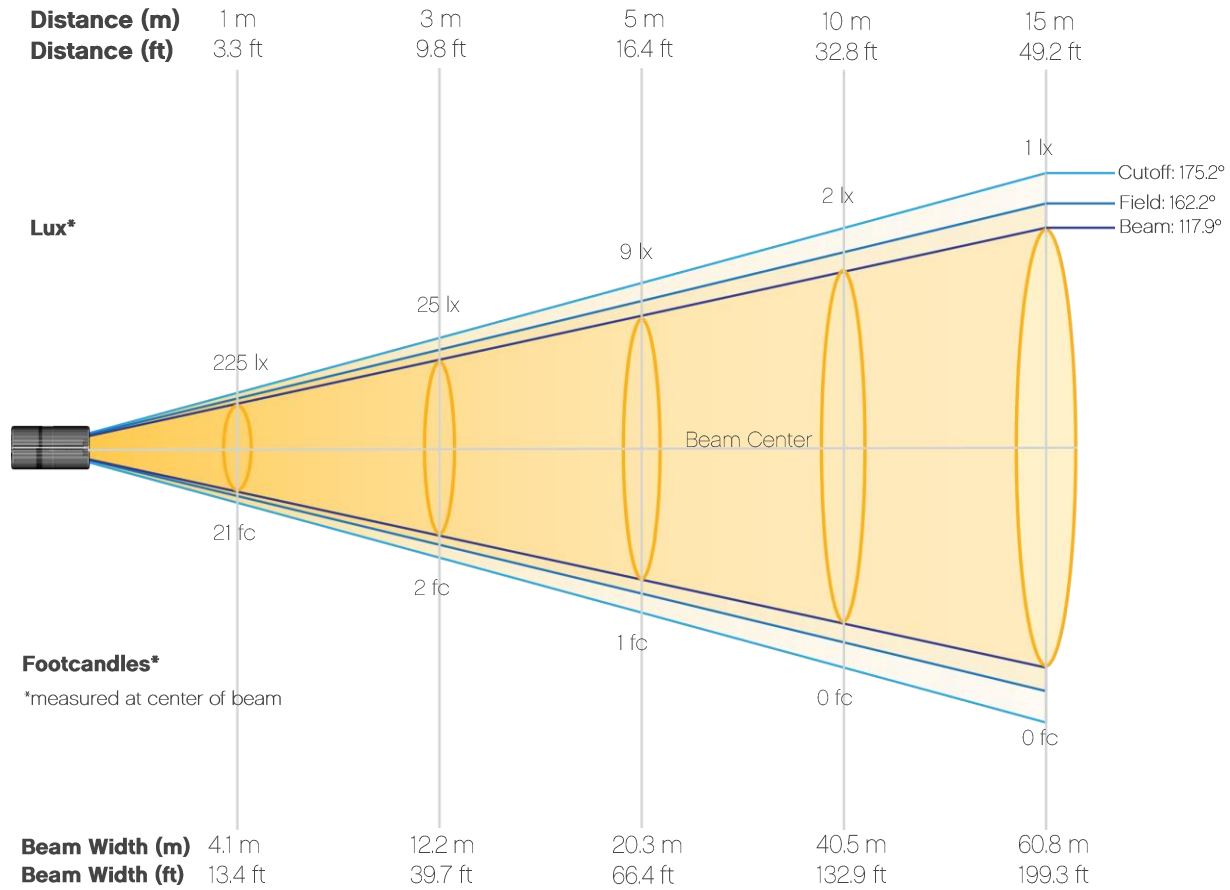
CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 4000K – 5 HR

## Beam Details



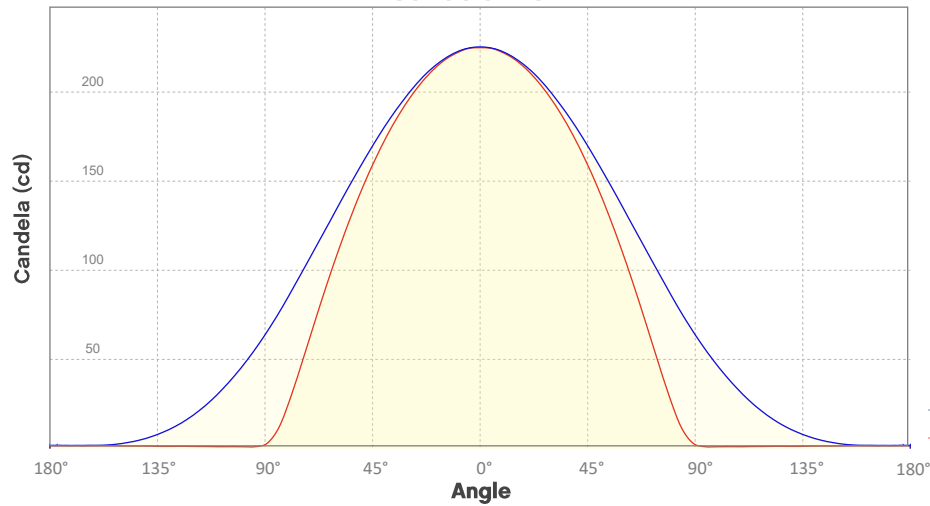
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 225           | 56            | 25            | 14            | 9             | 6             | 5             | 4             | 3             | 2             |
| <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             | 2             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 21            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 4000K – 5 HR

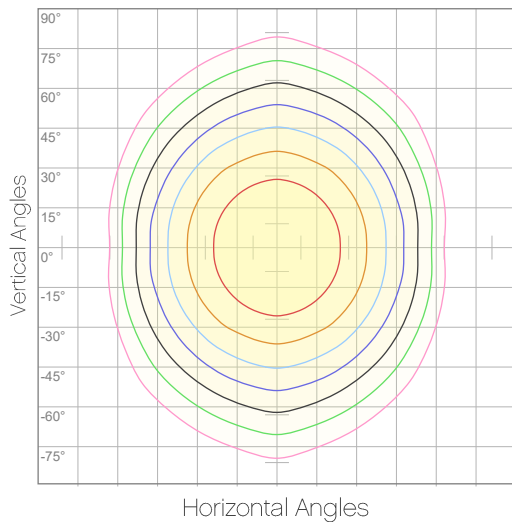
## Candela Plot



Beam Angle (50%): 127.5°  
 Field Angle (10%): 201.7°  
 Cutoff Angle (3%): 240.1°

— Horizontal Distribution  
 — Vertical Distribution

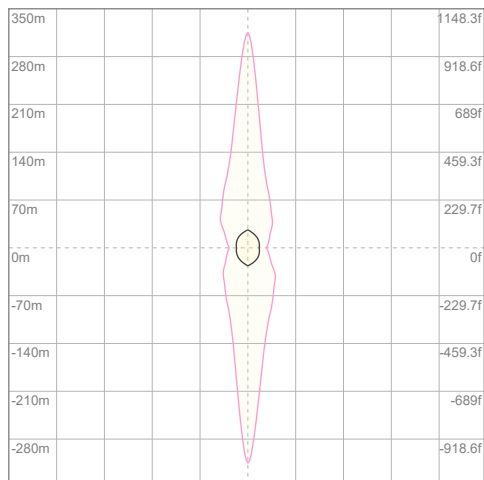
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 22 cd  |
| 20% | 45 cd  |
| 30% | 67 cd  |
| 40% | 90 cd  |
| 50% | 112 cd |
| 60% | 135 cd |
| 70% | 157 cd |
| 80% | 180 cd |
| 90% | 202 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 225 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 67.5m lx |
| 5%  | 0.112 lx |
| 10% | 0.225 lx |
| 30% | 0.675 lx |
| 50% | 1.12 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 2.25 lx

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

Mounting height: 10 meters / 33 feet



# Photometric Report

Well STX 180: Standard Optics – 4000K – 8 HR

## Report Summary

### Output

Total Lumens: 781 lm  
Peak Intensity: 204 cd  
Illuminance @ 5m: 8 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.8°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 232.9°  
Horizontal Cutoff Angle (3%): 175°  
Vertical Cutoff Angle (3%): 279.8°

### Conditions

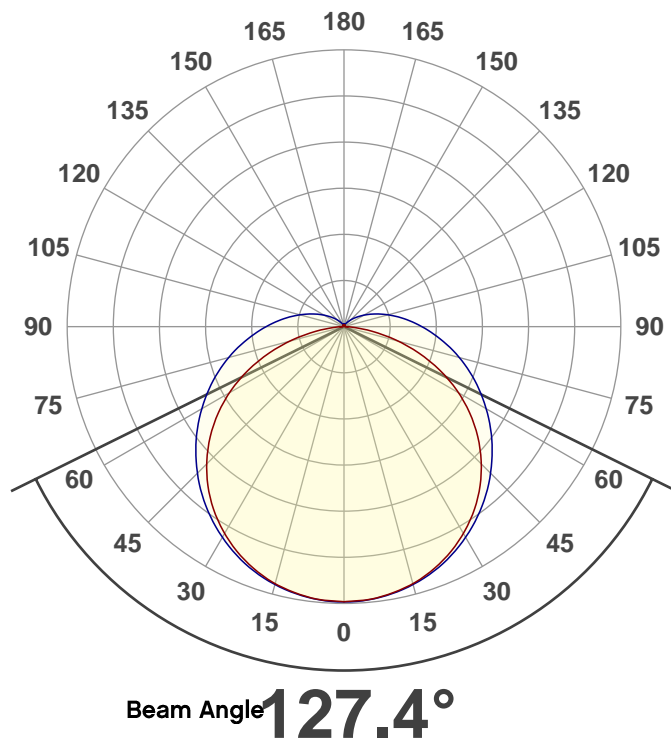
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



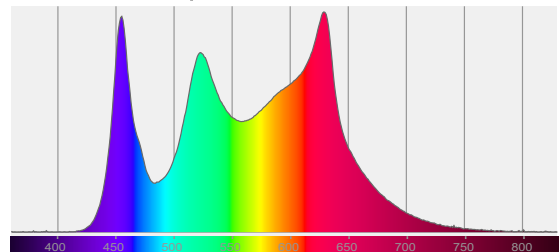
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

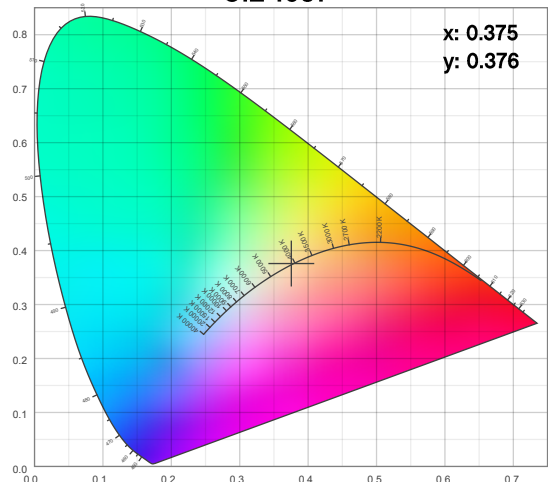
### Angular Beam Distribution



### Spectral Distribution



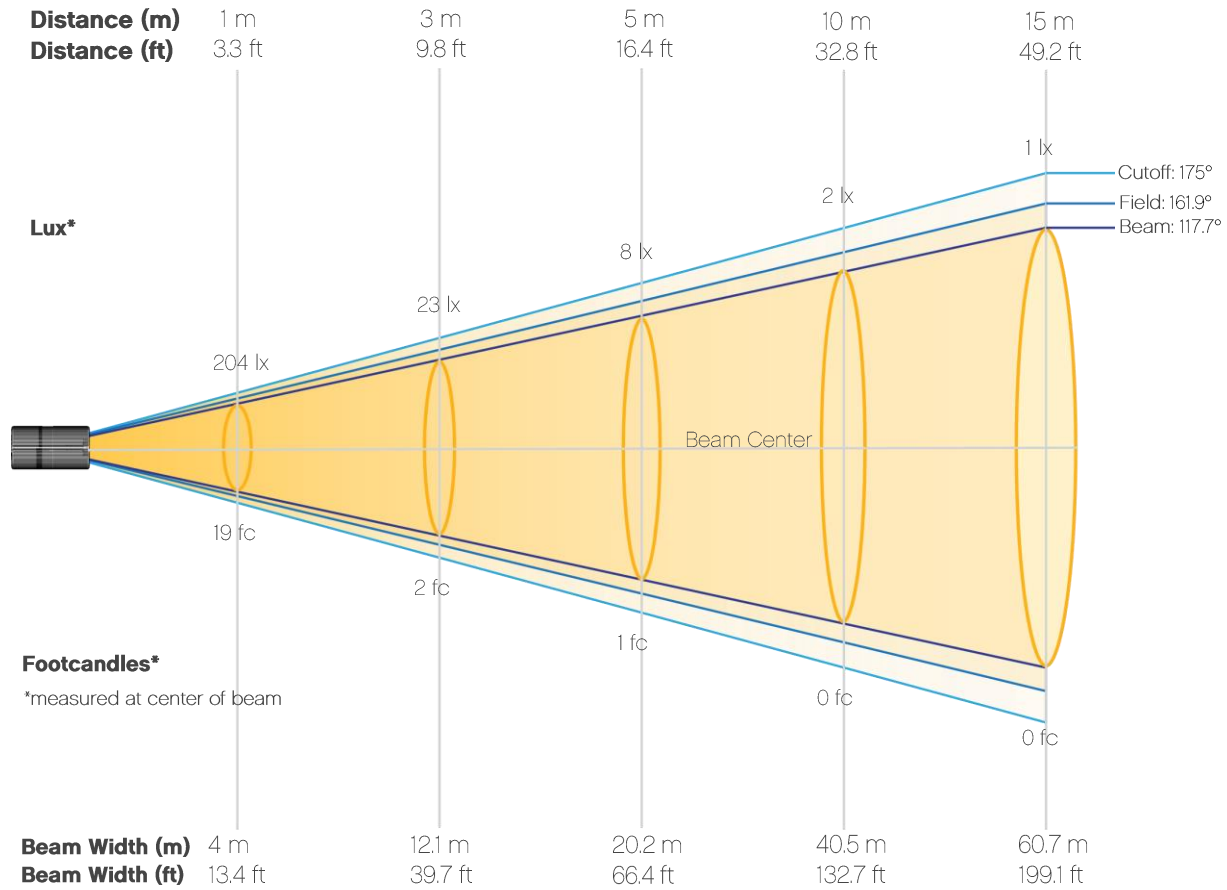
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 4000K – 8 HR

## Beam Details



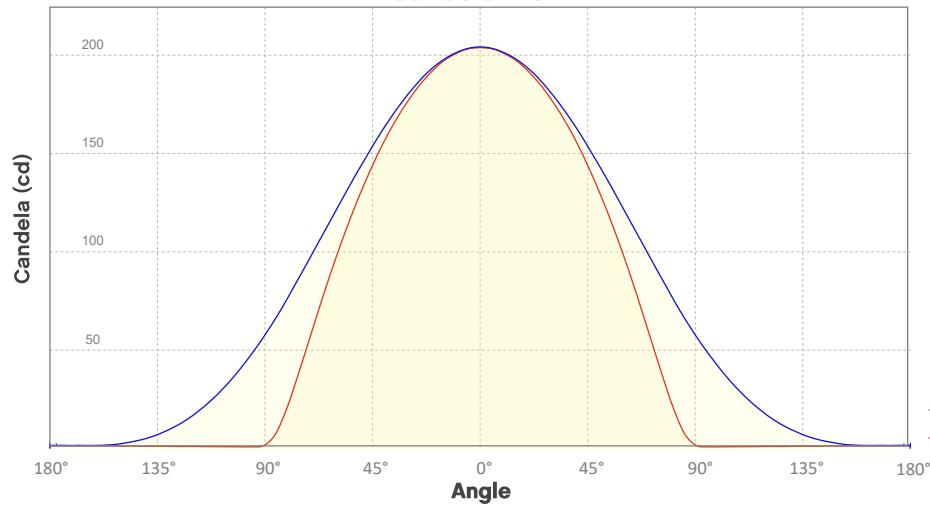
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 204           | 51            | 23            | 13            | 8             | 6             | 4             | 3             | 3             | 2             |
| <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             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 19            | 5             | 2             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 4000K – 8 HR

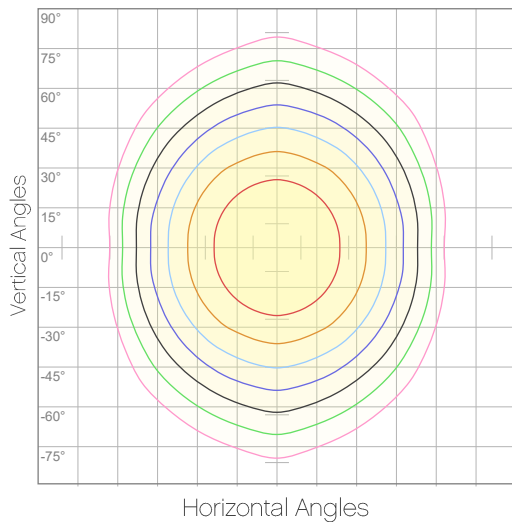
## Candela Plot



Beam Angle (50%): 127.4°  
Field Angle (10%): 201.6°  
Cutoff Angle (3%): 239.8°

— Horizontal Distribution  
— Vertical Distribution

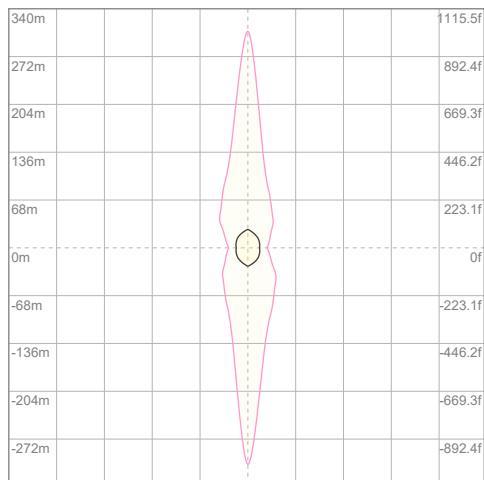
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 20 cd  |
| 20% | 41 cd  |
| 30% | 61 cd  |
| 40% | 82 cd  |
| 50% | 102 cd |
| 60% | 122 cd |
| 70% | 143 cd |
| 80% | 163 cd |
| 90% | 183 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 204 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 61.2m lx |
| 5%  | 0.102 lx |
| 10% | 0.204 lx |
| 30% | 0.612 lx |
| 50% | 1.02 lx  |

Conditions:  
Number of c-planes: 8  
Lux at center: 2.04 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 4000K – 12 HR

## Report Summary

### Output

Total Lumens: 461 lm

Peak Intensity: 121 cd

Illuminance @ 5m: 5 lux

Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.6°

Vertical Beam Angle (50%): 137.5°

Horizontal Field Angle (10%): 161.6°

Vertical Field Angle (10%): 232.6°

Horizontal Cutoff Angle (3%): 174.3°

Vertical Cutoff Angle (3%): 278.9°

### Conditions

AC Supply: 125 V, 60 Hz

Power: n/a W

Current: 0.000 A

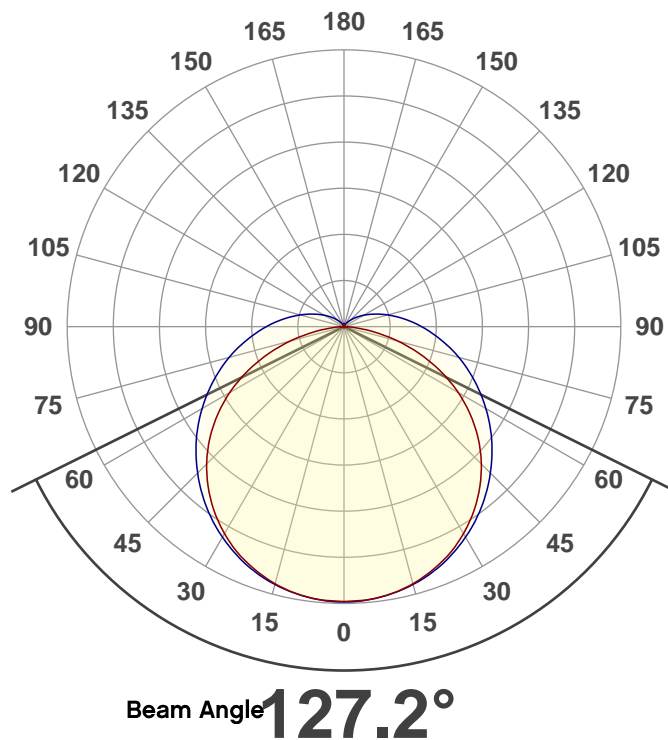
Power Factor: n/a



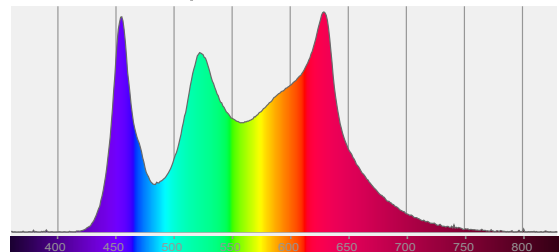
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

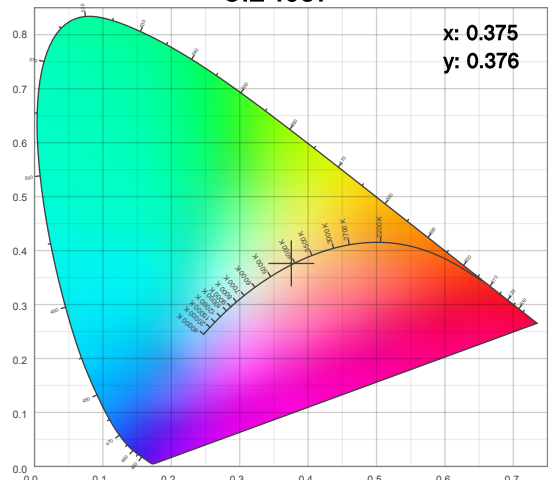
### Angular Beam Distribution



### Spectral Distribution



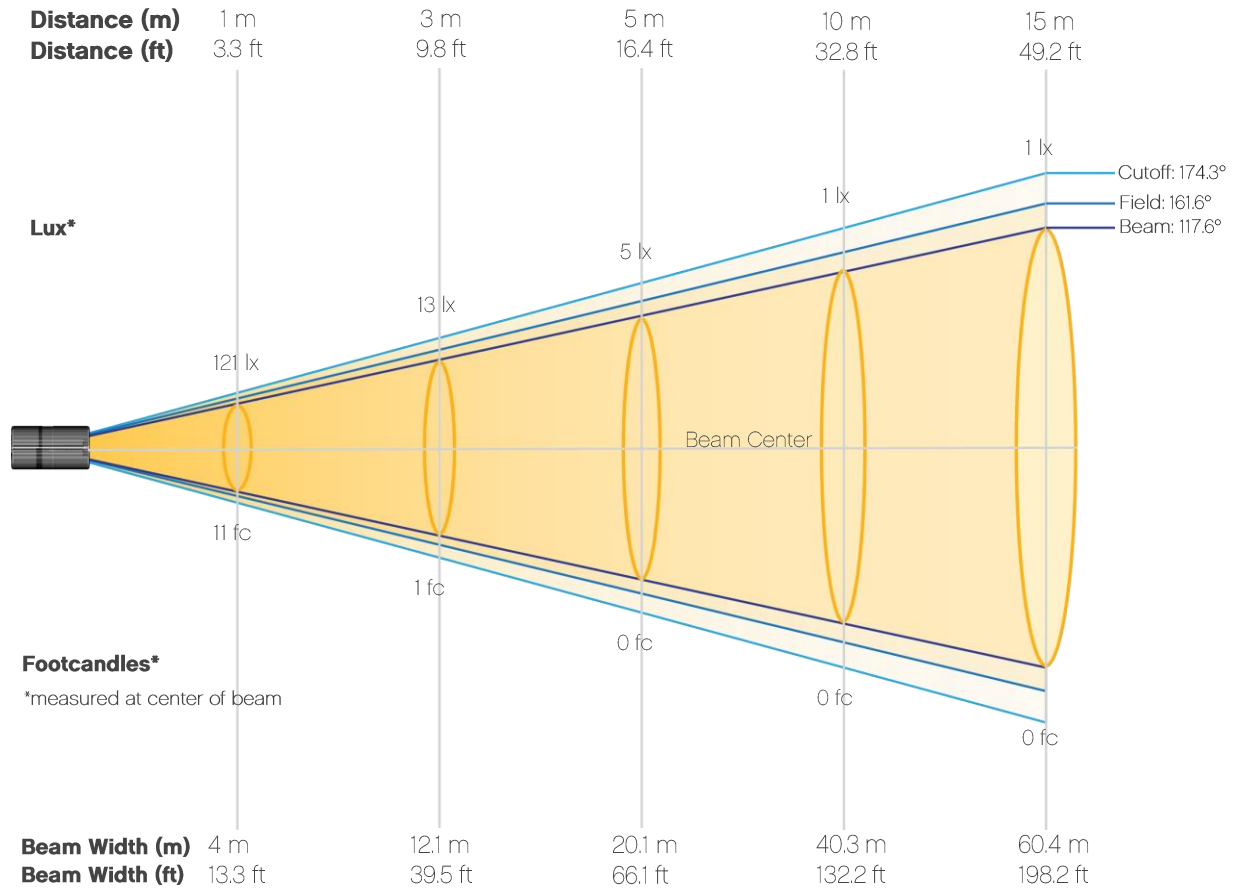
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 4000K – 12 HR

## Beam Details



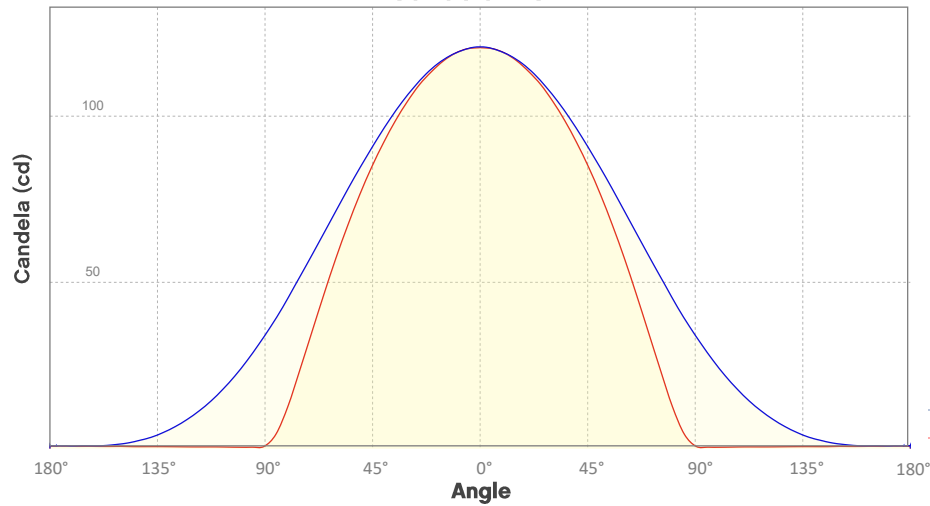
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 121           | 30            | 13            | 8             | 5             | 3             | 2             | 2             | 1             | 1             |
| <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             | 1             | 1             | 1             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 11            | 3             | 1             | 1             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 4000K – 12 HR

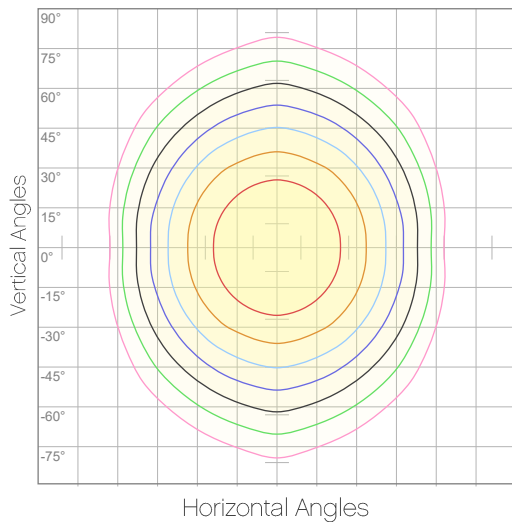
## Candela Plot



Beam Angle (50%): 127.2°  
 Field Angle (10%): 201.3°  
 Cutoff Angle (3%): 239.1°

— Horizontal Distribution  
 — Vertical Distribution

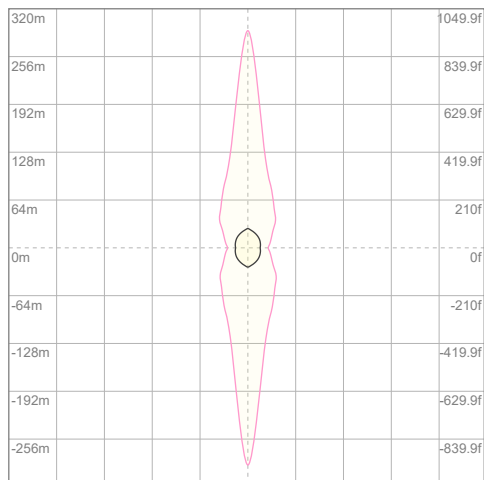
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 12 cd  |
| 20% | 24 cd  |
| 30% | 36 cd  |
| 40% | 48 cd  |
| 50% | 60 cd  |
| 60% | 72 cd  |
| 70% | 84 cd  |
| 80% | 97 cd  |
| 90% | 109 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 121 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 36.2m lx |
| 5%  | 60.3m lx |
| 10% | 0.121 lx |
| 30% | 0.362 lx |
| 50% | 0.603 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.21 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 5600K – 3 HR

## Report Summary

### Output

Total Lumens: 942 lm  
Peak Intensity: 245 cd  
Illuminance @ 5m: 10 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.8°  
Vertical Beam Angle (50%): 138°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 233.5°  
Horizontal Cutoff Angle (3%): 174.9°  
Vertical Cutoff Angle (3%): 281.1°

### Conditions

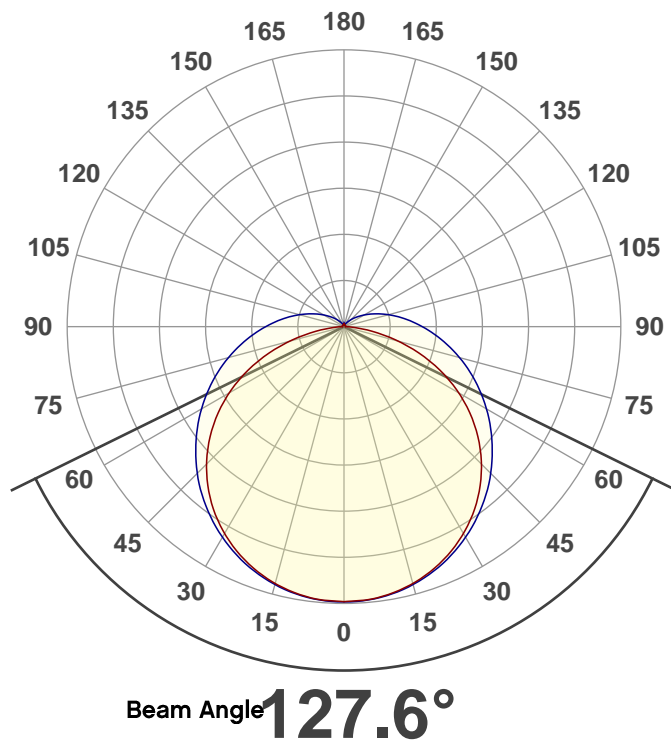
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



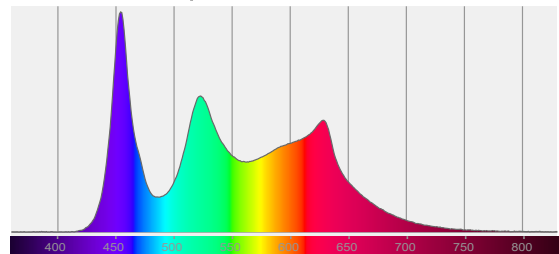
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

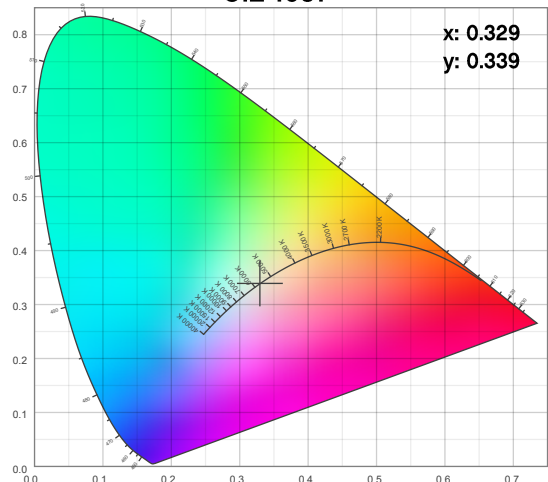
### Angular Beam Distribution



### Spectral Distribution



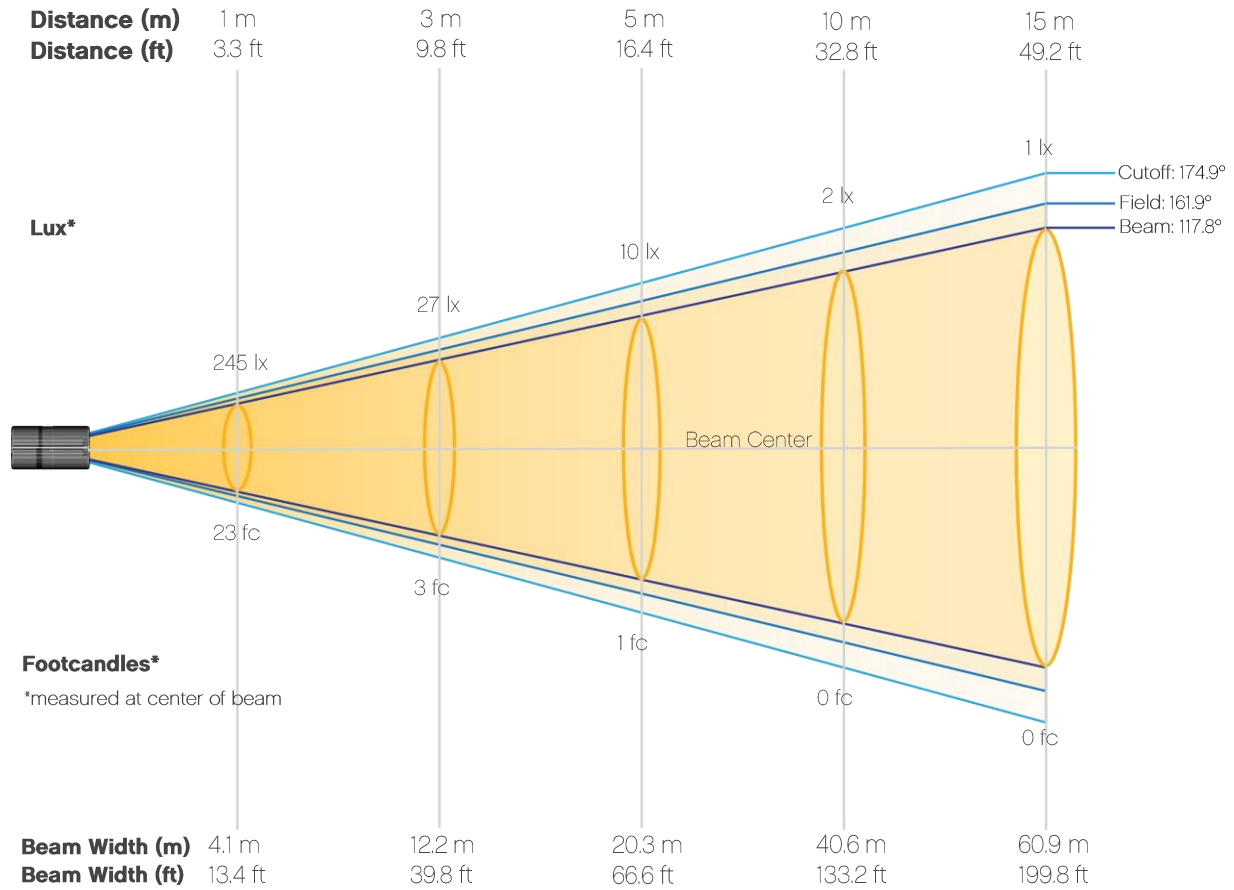
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 5600K – 3 HR

## Beam Details



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

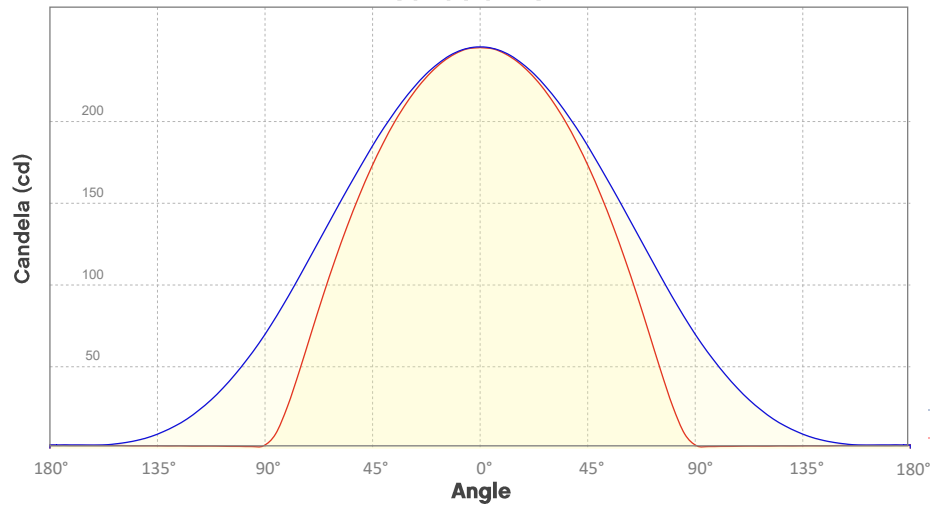
|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 245           | 61            | 27            | 15            | 10            | 7             | 5             | 4             | 3             | 2             |
| <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             | 2             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 23            | 6             | 3             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |



# Photometric Report

Well STX 180: Standard Optics – 5600K – 3 HR

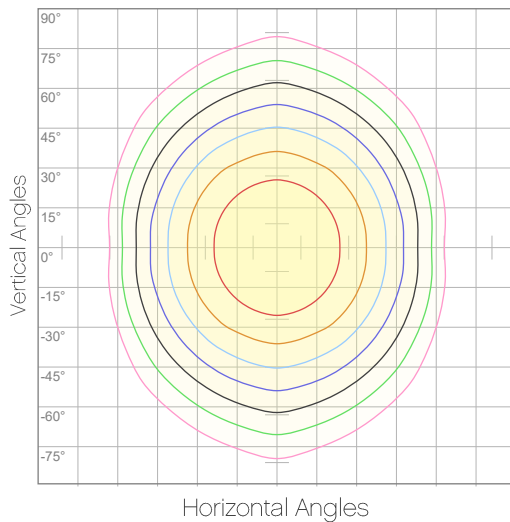
## Candela Plot



Beam Angle (50%): 127.6°  
Field Angle (10%): 201.9°  
Cutoff Angle (3%): 240.9°

— Horizontal Distribution  
— Vertical Distribution

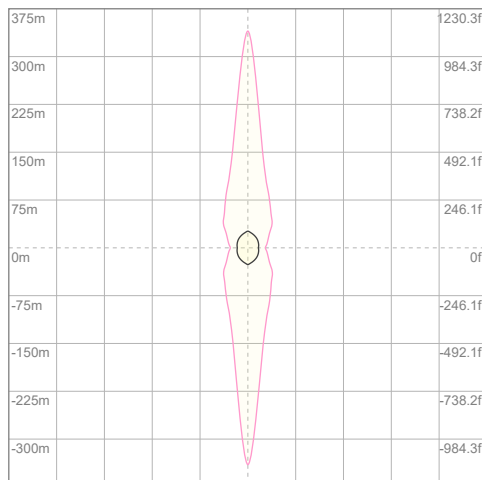
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 25 cd  |
| 20% | 49 cd  |
| 30% | 74 cd  |
| 40% | 98 cd  |
| 50% | 123 cd |
| 60% | 147 cd |
| 70% | 172 cd |
| 80% | 196 cd |
| 90% | 221 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 245 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 73.6m lx |
| 5%  | 0.123 lx |
| 10% | 0.245 lx |
| 30% | 0.736 lx |
| 50% | 1.23 lx  |

Conditions:  
Number of c-planes: 8  
Lux at center: 2.45 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 5600K – 5 HR

## Report Summary

### Output

Total Lumens: 941 lm  
Peak Intensity: 245 cd  
Illuminance @ 5m: 10 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 138°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 233.6°  
Horizontal Cutoff Angle (3%): 175°  
Vertical Cutoff Angle (3%): 281.9°

### Conditions

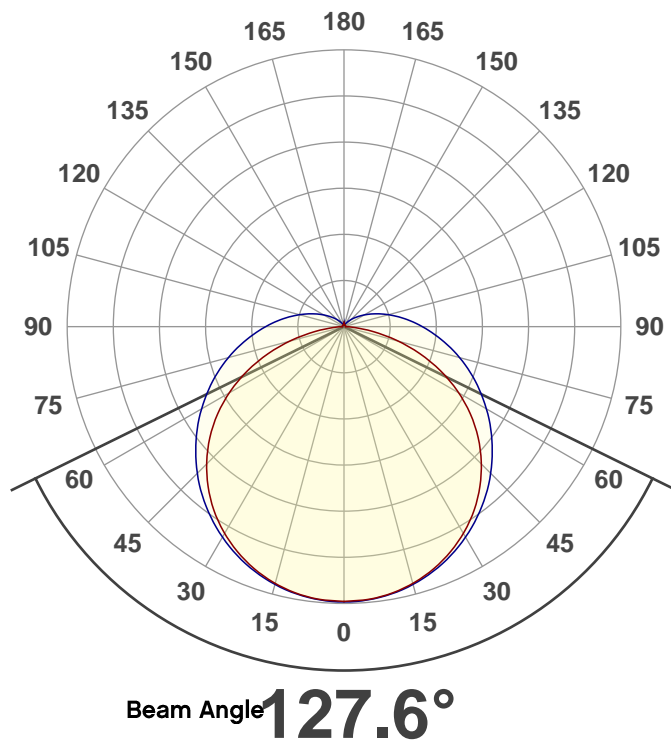
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



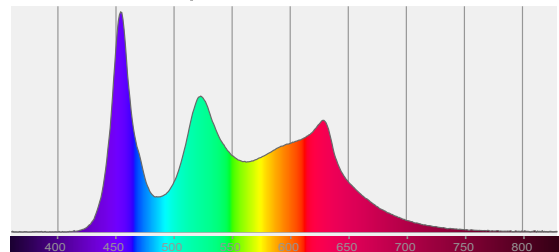
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

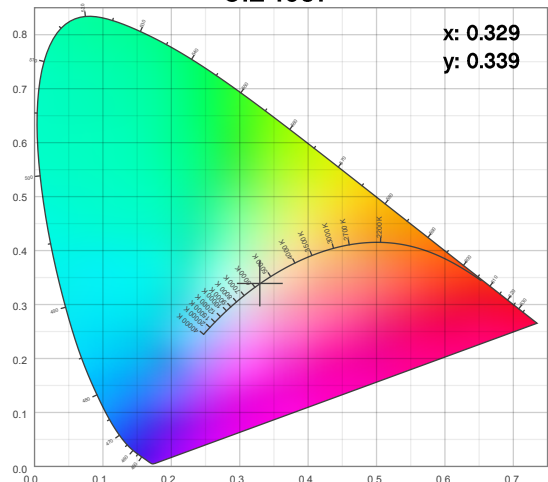
### Angular Beam Distribution



### Spectral Distribution



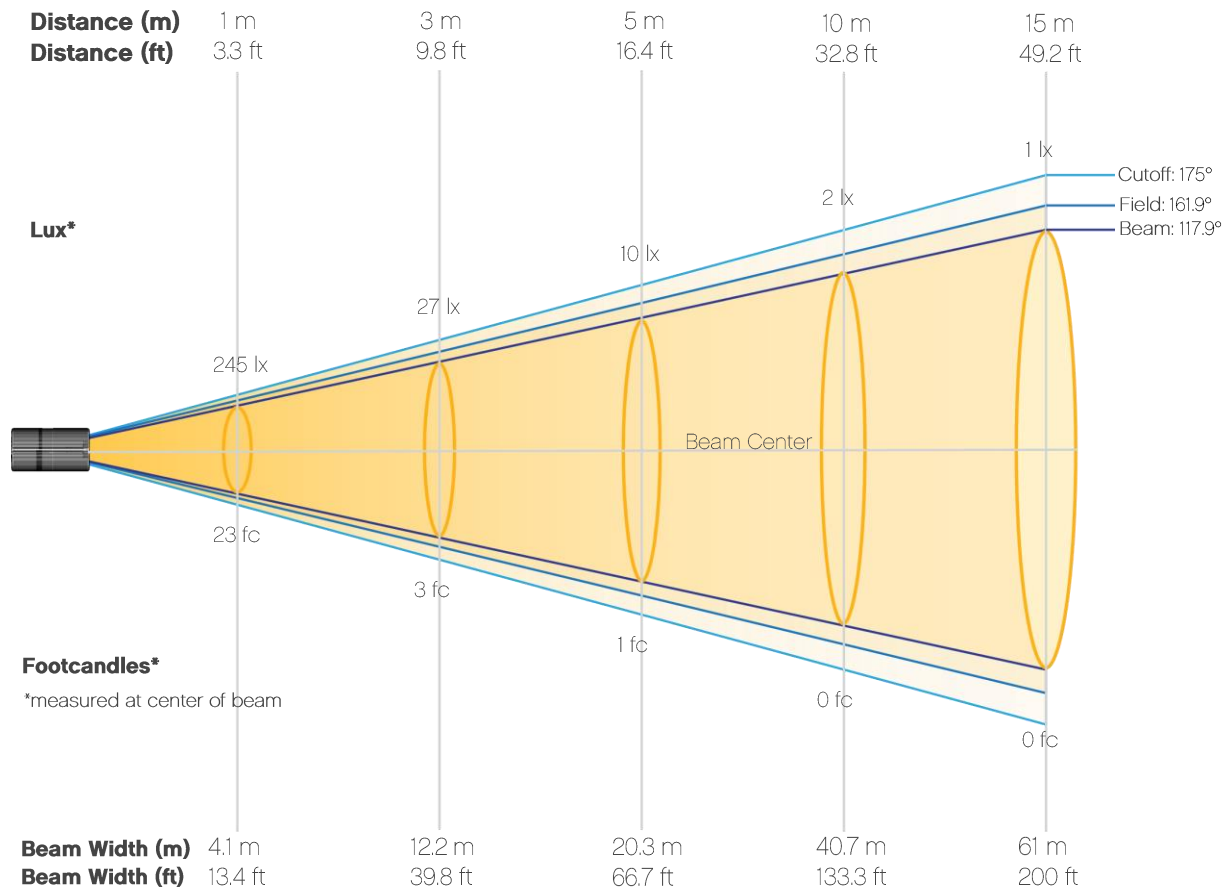
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 5600K – 5 HR

## Beam Details



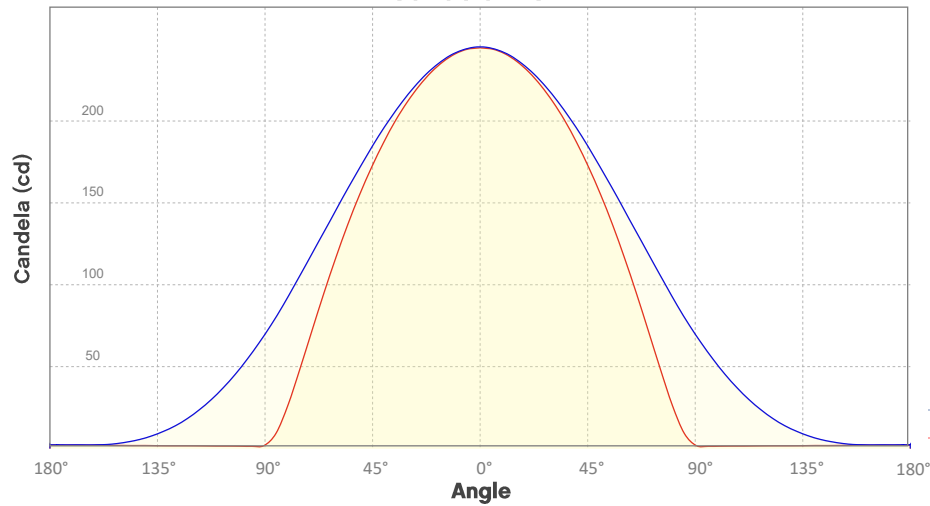
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 245           | 61            | 27            | 15            | 10            | 7             | 5             | 4             | 3             | 2             |
| <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             | 2             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 23            | 6             | 3             | 1             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 5600K – 5 HR

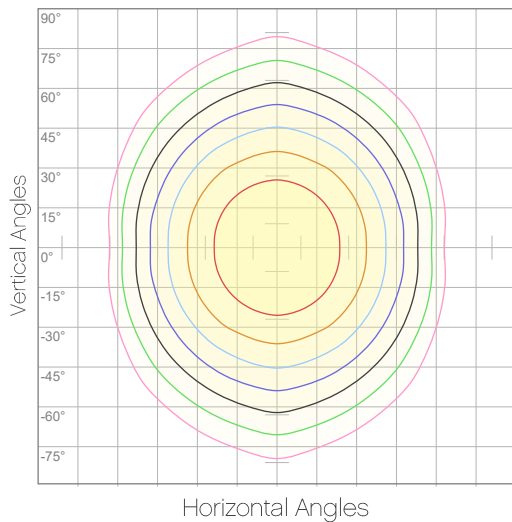
## Candela Plot



Beam Angle (50%): 127.6°  
 Field Angle (10%): 202.1°  
 Cutoff Angle (3%): 241.2°

— Horizontal Distribution  
 — Vertical Distribution

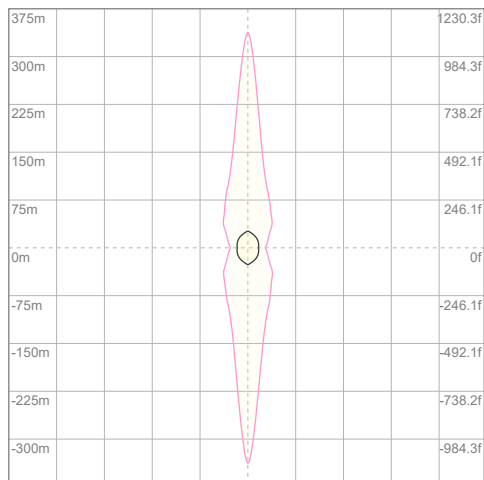
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 24 cd  |
| 20% | 49 cd  |
| 30% | 73 cd  |
| 40% | 98 cd  |
| 50% | 122 cd |
| 60% | 147 cd |
| 70% | 171 cd |
| 80% | 196 cd |
| 90% | 220 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 245 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 73.4m lx |
| 5%  | 0.122 lx |
| 10% | 0.245 lx |
| 30% | 0.734 lx |
| 50% | 1.22 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 2.45 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 5600K – 8 HR

## Report Summary

### Output

Total Lumens: 732 lm  
Peak Intensity: 191 cd  
Illuminance @ 5m: 8 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.8°  
Vertical Beam Angle (50%): 138°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 233.5°  
Horizontal Cutoff Angle (3%): 175°  
Vertical Cutoff Angle (3%): 281.2°

### Conditions

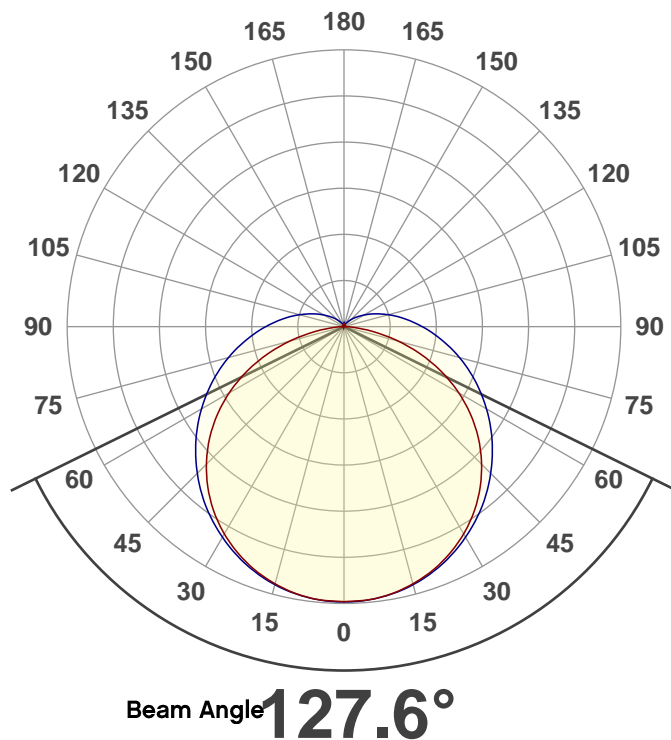
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



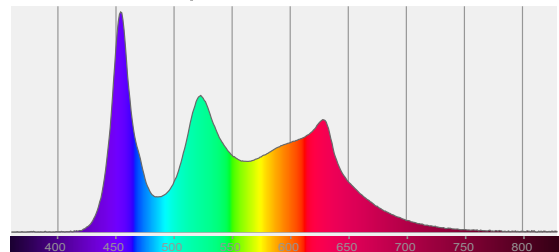
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## Overall Measurement

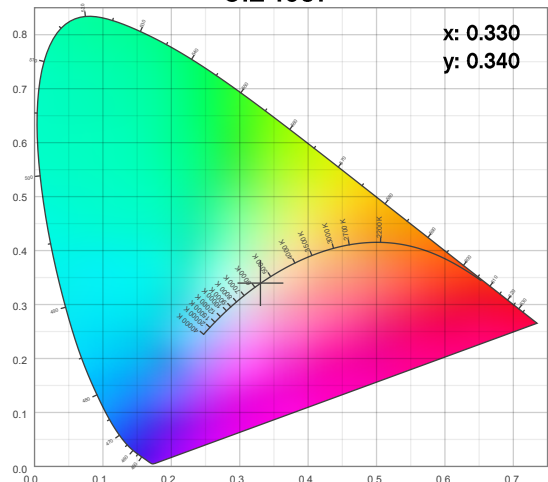
### Angular Beam Distribution



### Spectral Distribution



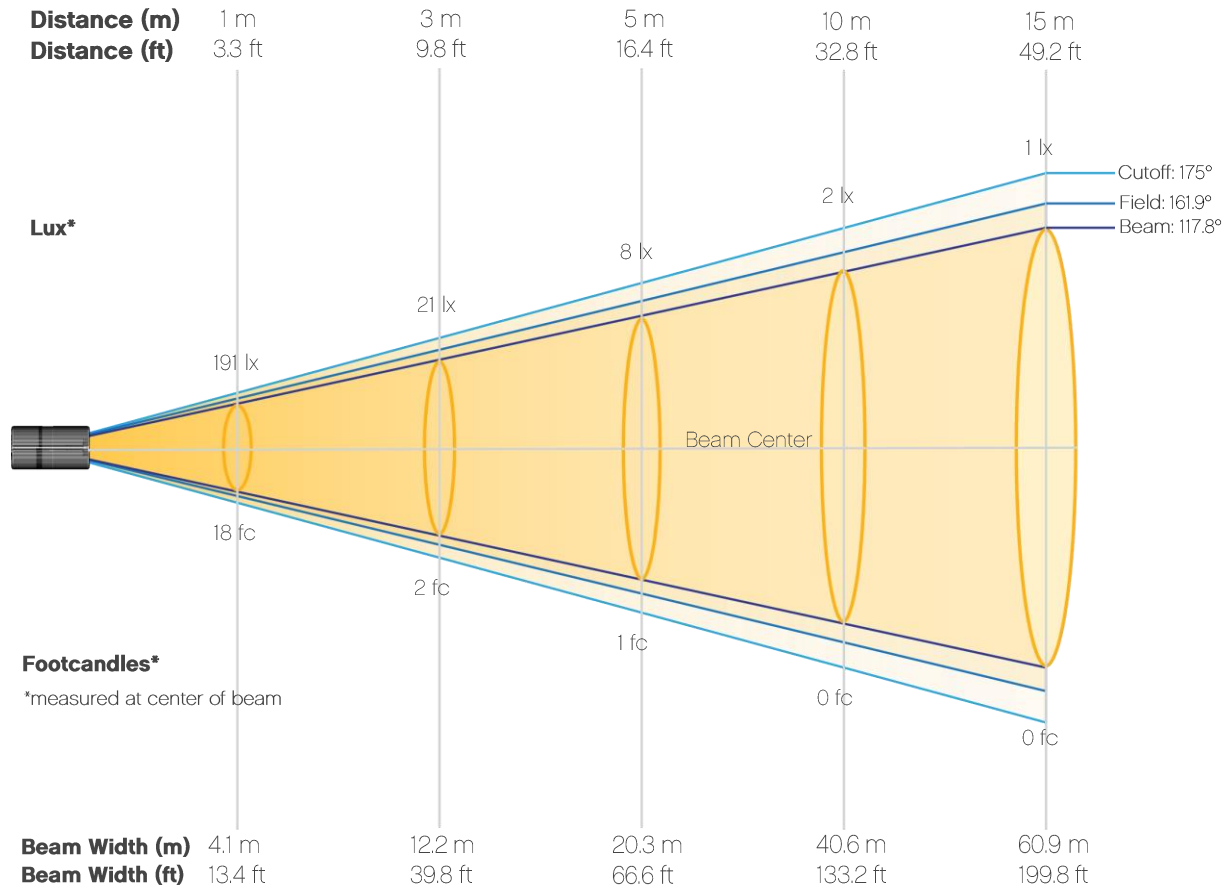
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 5600K – 8 HR

## Beam Details



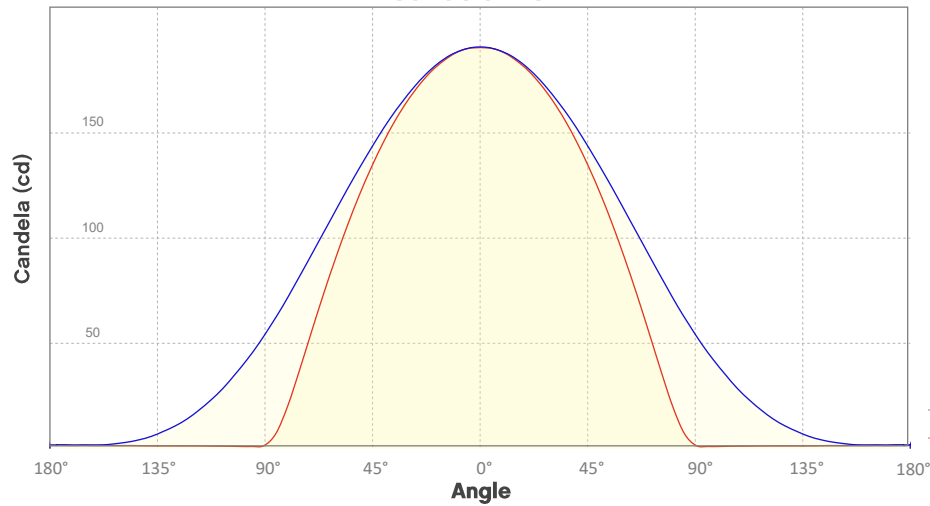
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 191           | 48            | 21            | 12            | 8             | 5             | 4             | 3             | 2             | 2             |
| <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             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 0             |
| <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              | 18            | 4             | 2             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 5600K – 8 HR

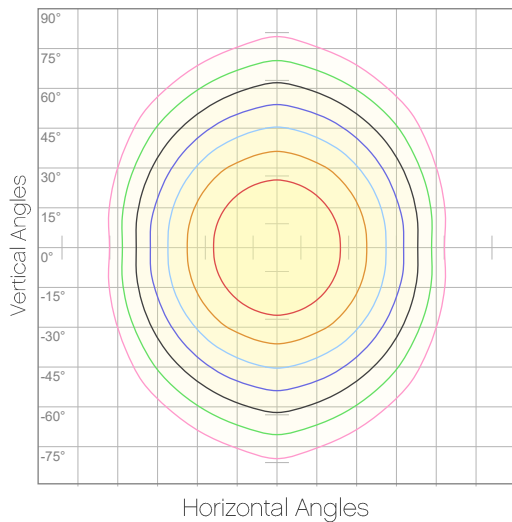
## Candela Plot



Beam Angle (50%): 127.6°  
 Field Angle (10%): 201.9°  
 Cutoff Angle (3%): 240.9°

— Horizontal Distribution  
 — Vertical Distribution

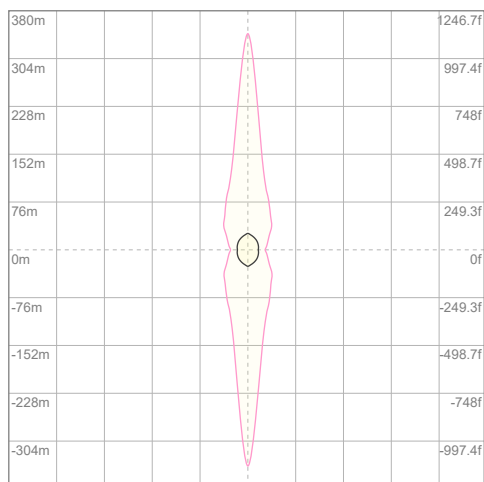
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 19 cd  |
| 20% | 38 cd  |
| 30% | 57 cd  |
| 40% | 76 cd  |
| 50% | 95 cd  |
| 60% | 114 cd |
| 70% | 133 cd |
| 80% | 153 cd |
| 90% | 172 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 191 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 57.2m lx |
| 5%  | 95.3m lx |
| 10% | 0.191 lx |
| 30% | 0.572 lx |
| 50% | 0.953 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.91 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 5600K – 12 HR

## Report Summary

### Output

Total Lumens: 436 lm  
Peak Intensity: 114 cd  
Illuminance @ 5m: 5 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.7°  
Vertical Beam Angle (50%): 137.7°  
Horizontal Field Angle (10%): 161.7°  
Vertical Field Angle (10%): 233.1°  
Horizontal Cutoff Angle (3%): 174.6°  
Vertical Cutoff Angle (3%): 280.4°

### Conditions

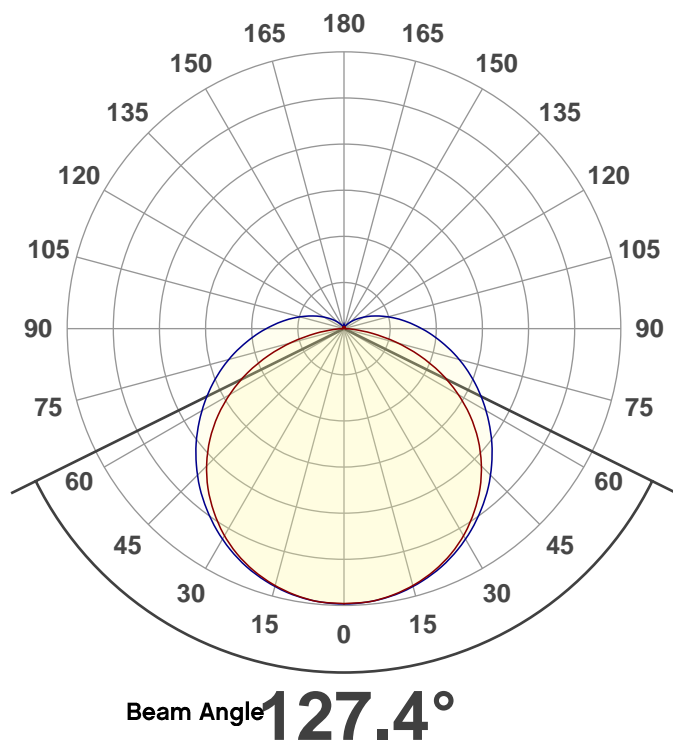
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



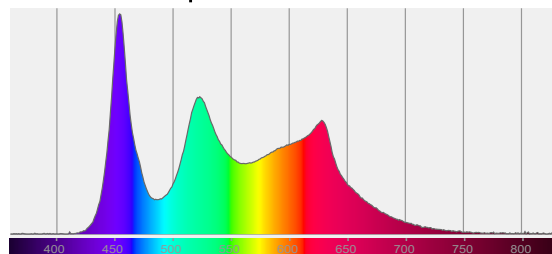
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

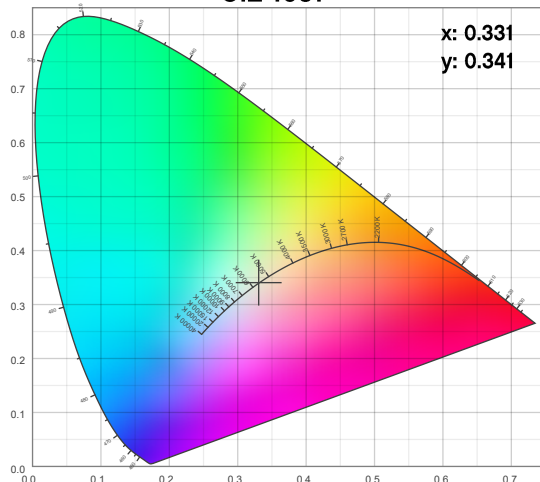
Angular Beam Distribution



Spectral Distribution



CIE 1931

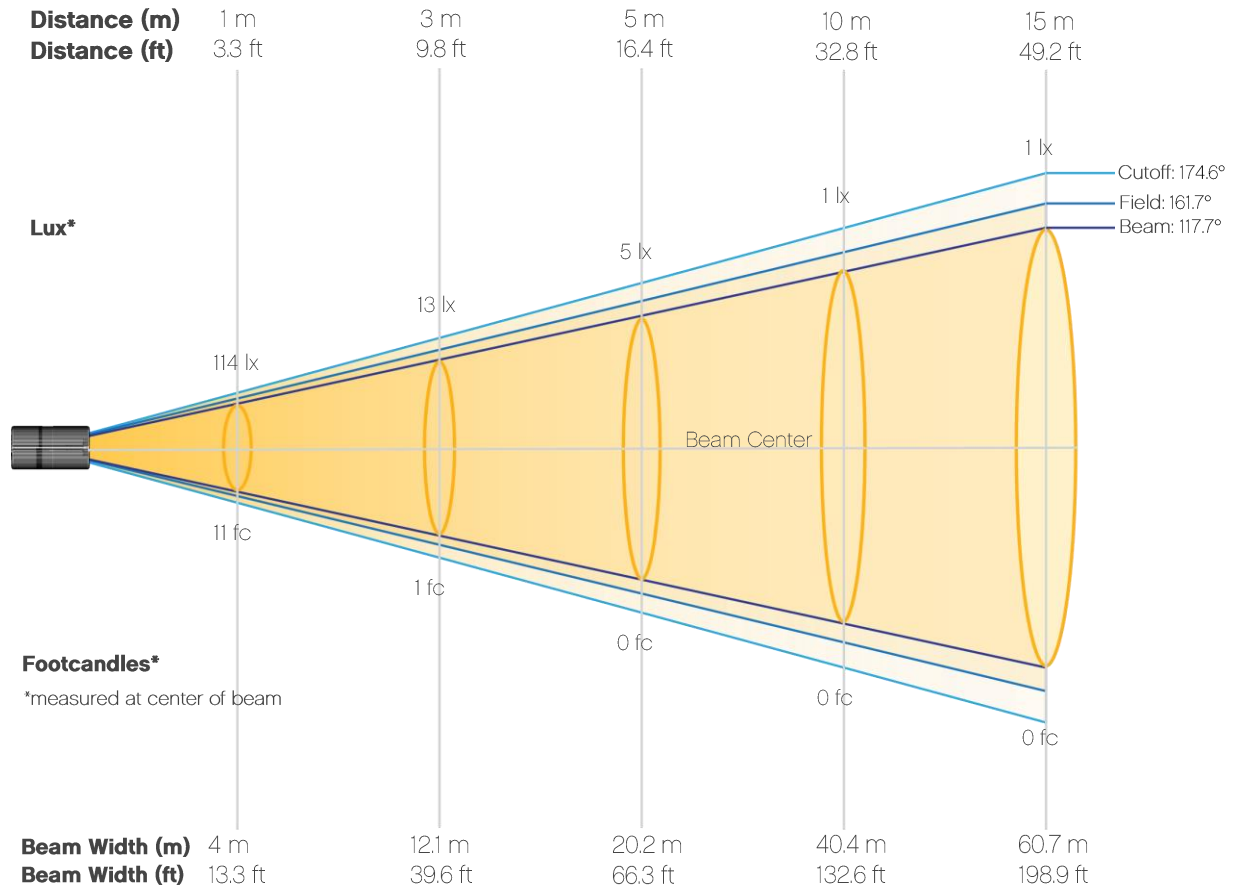




# Photometric Report

Well STX 180: Standard Optics – 5600K – 8 HR

## Beam Details



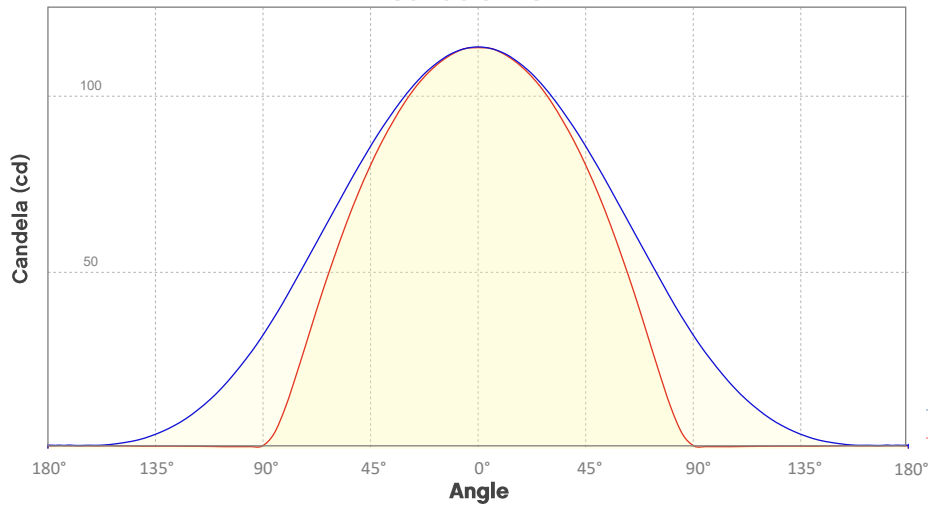
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 114           | 28            | 13            | 7             | 5             | 3             | 2             | 2             | 1             | 1             |
| <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             | 1             | 1             | 1             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 11            | 3             | 1             | 1             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 5600K – 12 HR

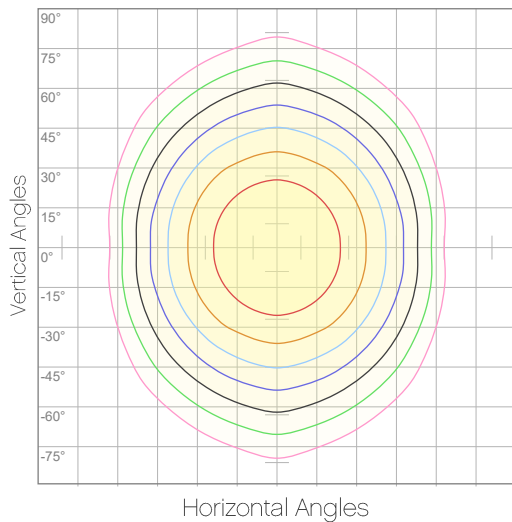
## Candela Plot



Beam Angle (50%): 127.4°  
 Field Angle (10%): 201.8°  
 Cutoff Angle (3%): 240.1°

— Horizontal Distribution  
 — Vertical Distribution

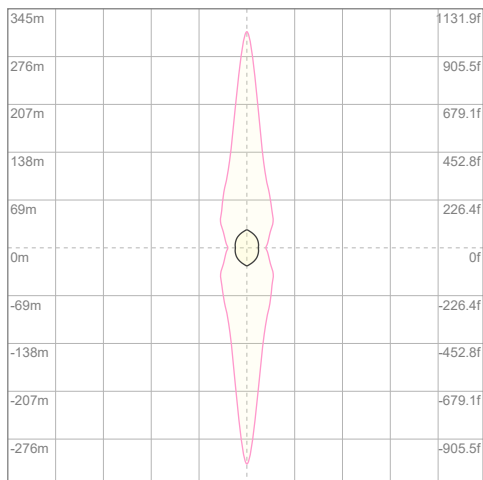
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 11 cd  |
| 20% | 23 cd  |
| 30% | 34 cd  |
| 40% | 46 cd  |
| 50% | 57 cd  |
| 60% | 68 cd  |
| 70% | 80 cd  |
| 80% | 91 cd  |
| 90% | 102 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 114 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 34.1m lx |
| 5%  | 56.9m lx |
| 10% | 0.114 lx |
| 30% | 0.341 lx |
| 50% | 0.569 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.14 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 6500K – 3 HR

## Report Summary

### Output

Total Lumens: 996 lm  
Peak Intensity: 259 cd  
Illuminance @ 5m: 10 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 138.2°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 233.6°  
Horizontal Cutoff Angle (3%): 174.9°  
Vertical Cutoff Angle (3%): 281.5°

### Conditions

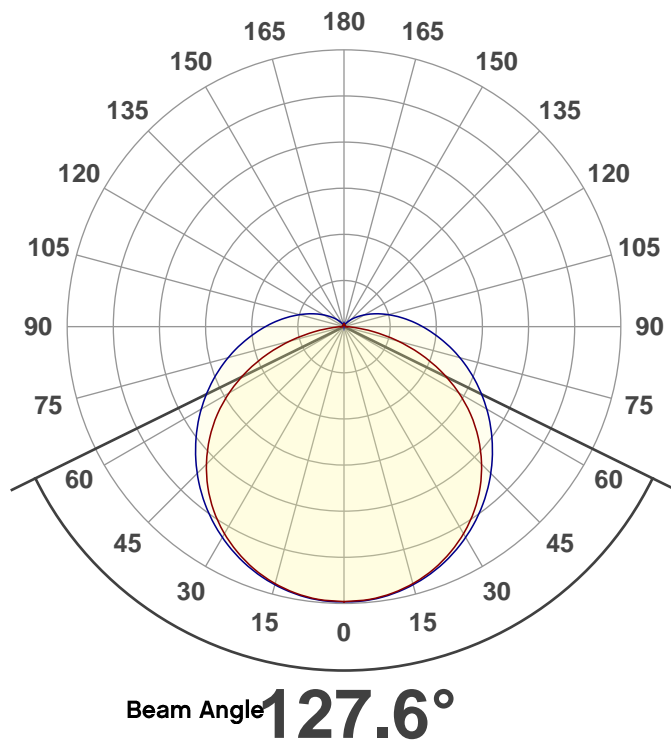
AC Supply: 124 V, 60.1 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



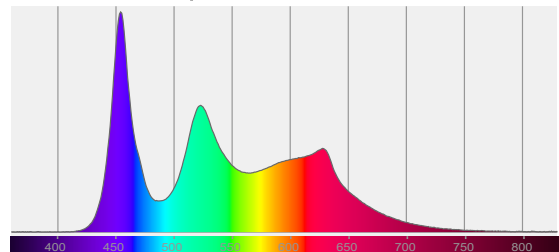
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

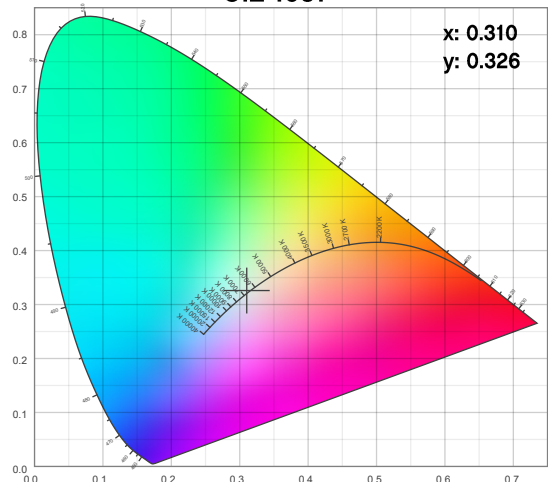
### Angular Beam Distribution



### Spectral Distribution



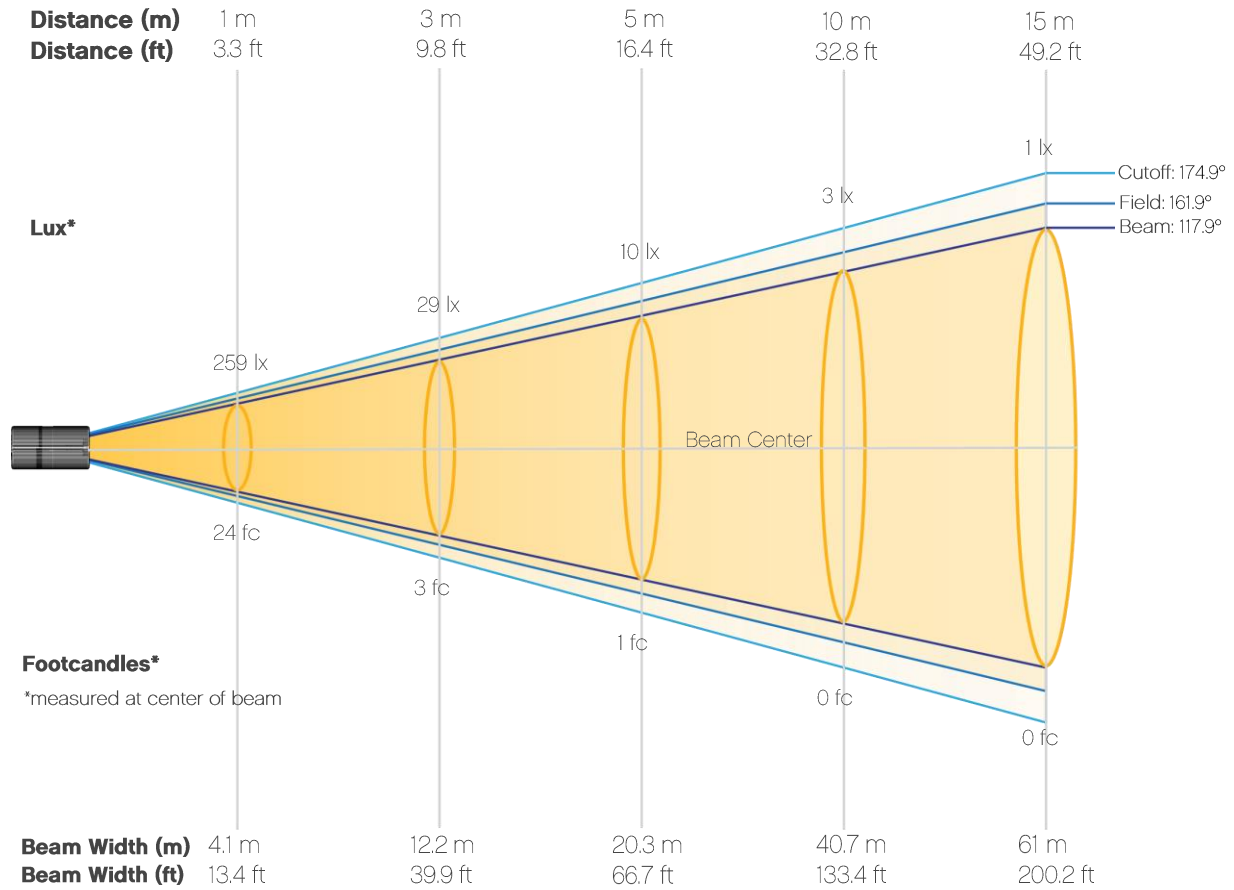
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 6500K – 3 HR

## Beam Details



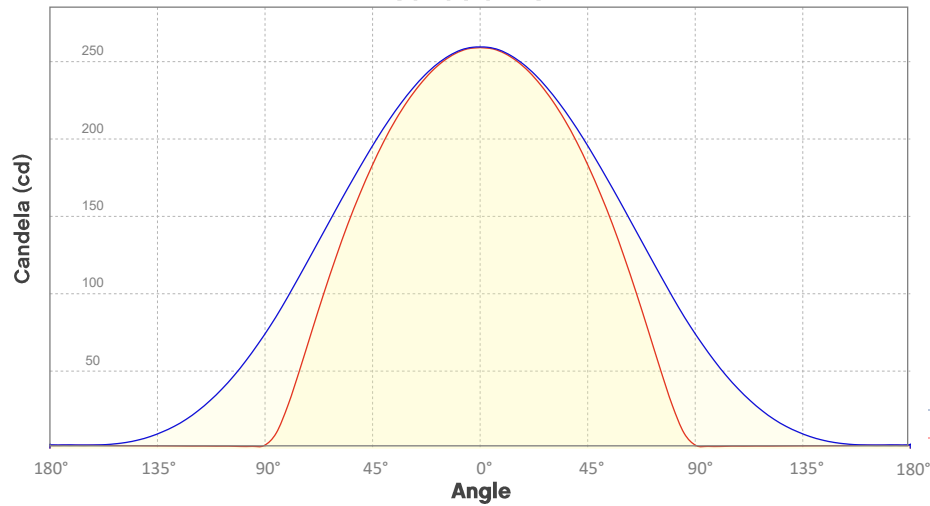
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 259           | 65            | 29            | 16            | 10            | 7             | 5             | 4             | 3             | 3             |
| <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             | 2             | 2             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 24            | 6             | 3             | 2             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 6500K – 3 HR

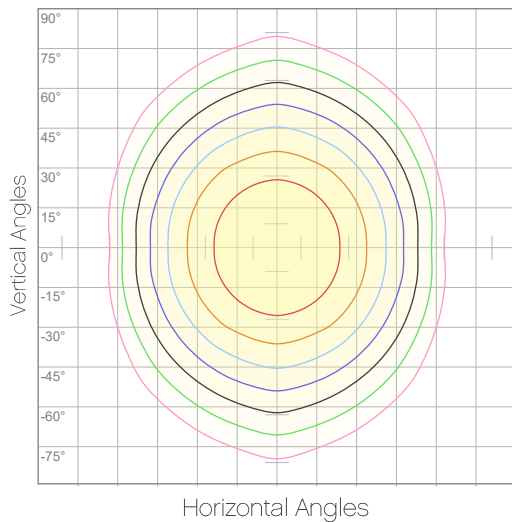
## Candela Plot



Beam Angle (50%): 127.6°  
 Field Angle (10%): 202.1°  
 Cutoff Angle (3%): 241°

— Horizontal Distribution  
 — Vertical Distribution

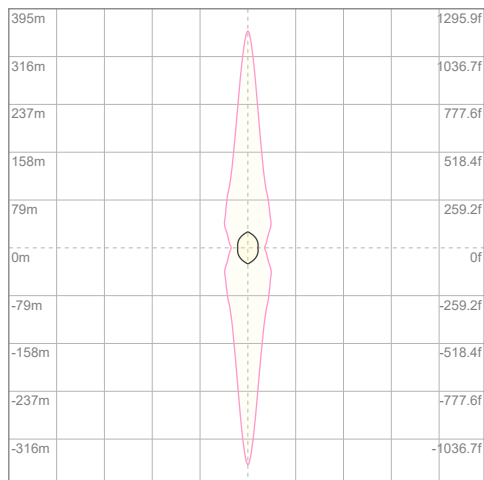
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 26 cd  |
| 20% | 52 cd  |
| 30% | 78 cd  |
| 40% | 104 cd |
| 50% | 130 cd |
| 60% | 156 cd |
| 70% | 181 cd |
| 80% | 207 cd |
| 90% | 233 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 259 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 77.8m lx |
| 5%  | 0.130 lx |
| 10% | 0.259 lx |
| 30% | 0.778 lx |
| 50% | 1.30 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 2.59 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 6500K – 5 HR

## Report Summary

### Output

Total Lumens: 994 lm  
Peak Intensity: 259 cd  
Illuminance @ 5m: 10 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.8°  
Vertical Beam Angle (50%): 138.1°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 233.4°  
Horizontal Cutoff Angle (3%): 174.8°  
Vertical Cutoff Angle (3%): 281°

### Conditions

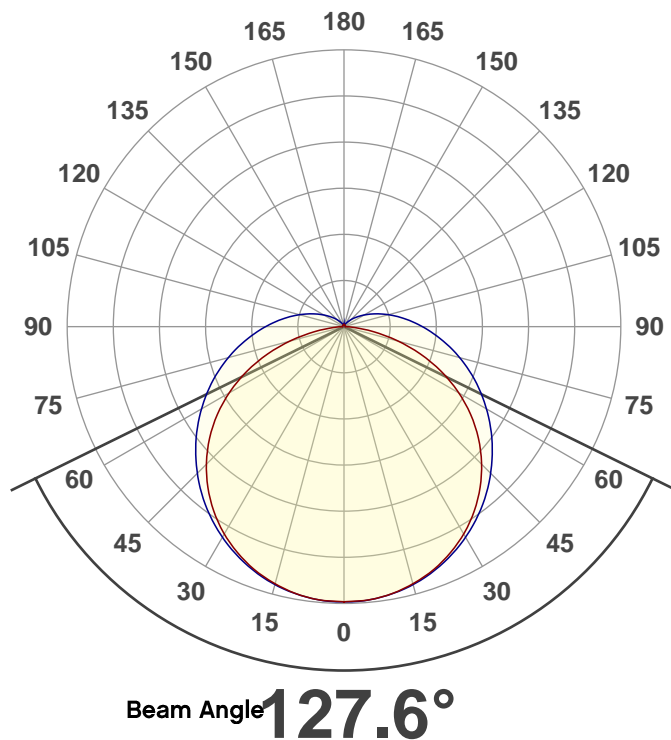
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



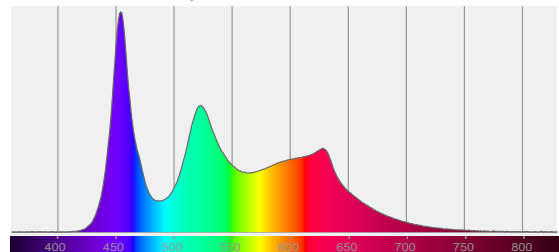
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

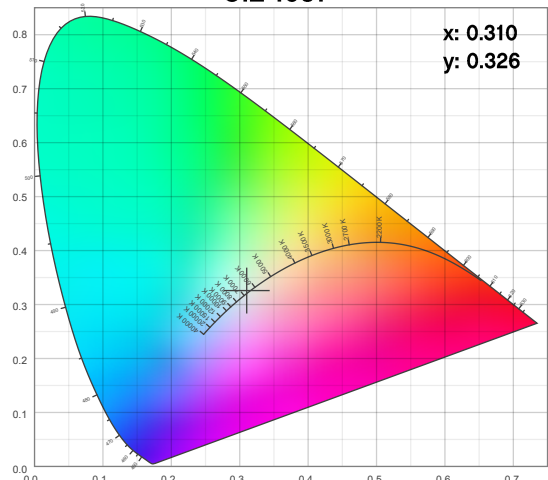
### Angular Beam Distribution



### Spectral Distribution



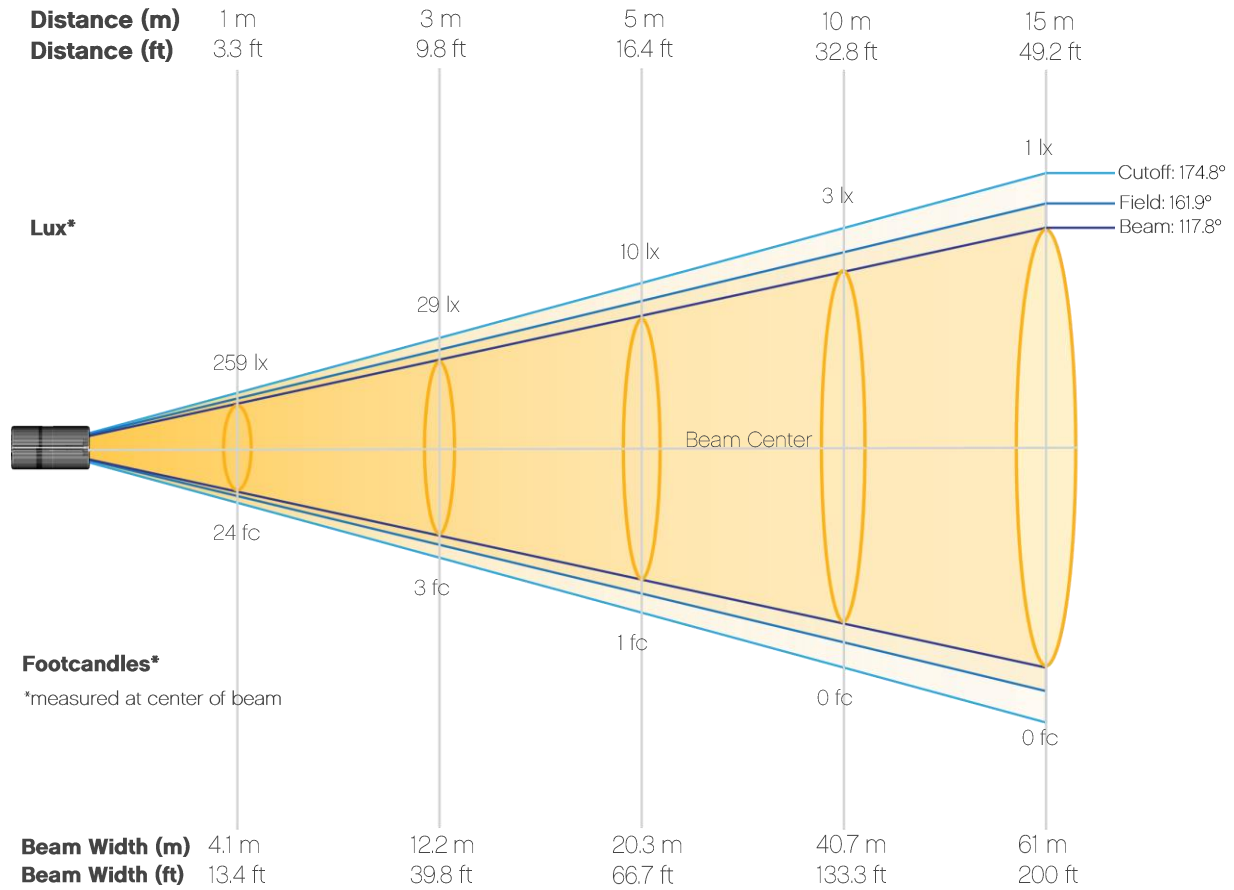
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 6500K – 5 HR

## Beam Details



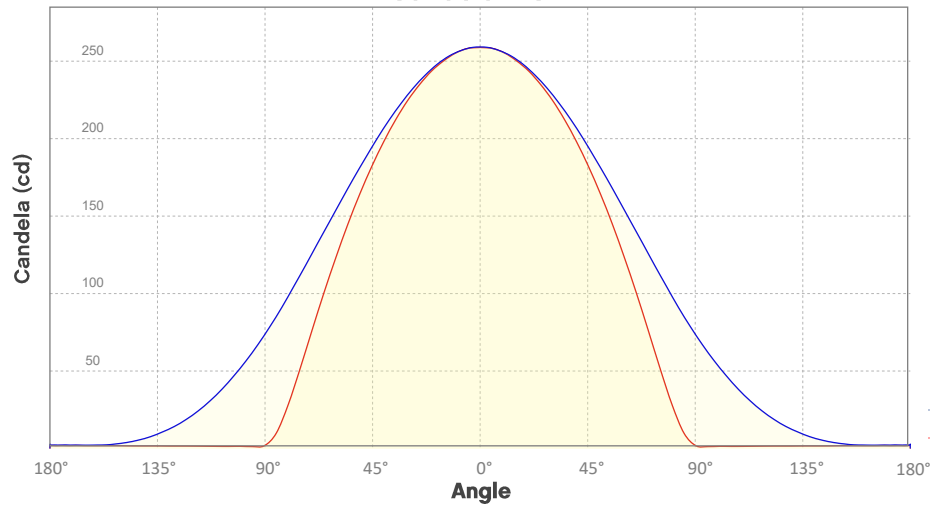
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 259           | 65            | 29            | 16            | 10            | 7             | 5             | 4             | 3             | 3             |
| <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             | 2             | 2             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             |
| <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              | 24            | 6             | 3             | 2             | 1             | 1             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 6500K – 5 HR

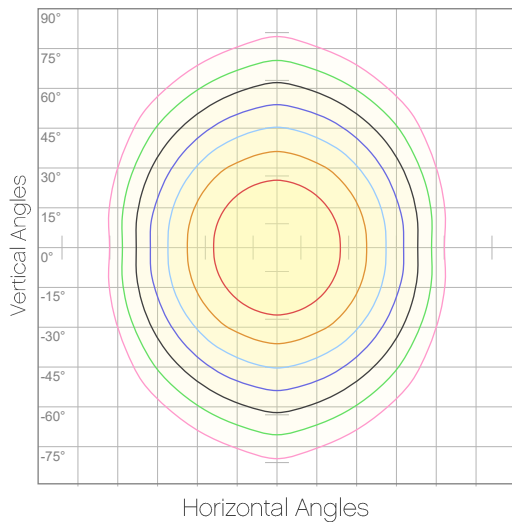
## Candela Plot



Beam Angle (50%): 127.6°  
 Field Angle (10%): 201.9°  
 Cutoff Angle (3%): 240.6°

— Horizontal Distribution  
 — Vertical Distribution

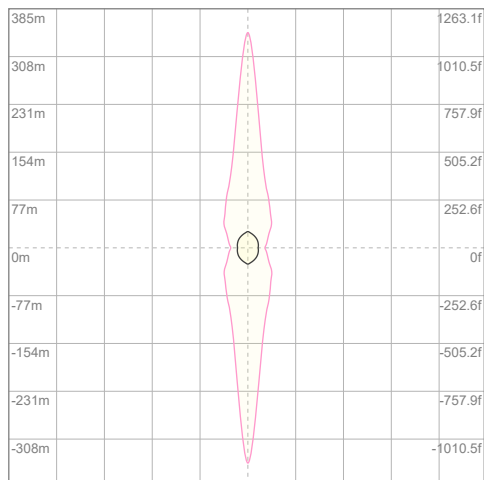
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 26 cd  |
| 20% | 52 cd  |
| 30% | 78 cd  |
| 40% | 104 cd |
| 50% | 129 cd |
| 60% | 155 cd |
| 70% | 181 cd |
| 80% | 207 cd |
| 90% | 233 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 259 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 77.7m lx |
| 5%  | 0.129 lx |
| 10% | 0.259 lx |
| 30% | 0.777 lx |
| 50% | 1.29 lx  |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 2.59 lx

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

Mounting height: 10 meters / 33 feet



# Photometric Report

Well STX 180: Standard Optics – 6500K – 8 HR

## Report Summary

### Output

Total Lumens: 723 lm  
Peak Intensity: 188 cd  
Illuminance @ 5m: 8 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.9°  
Vertical Beam Angle (50%): 138.2°  
Horizontal Field Angle (10%): 161.8°  
Vertical Field Angle (10%): 233.6°  
Horizontal Cutoff Angle (3%): 175°  
Vertical Cutoff Angle (3%): 281.8°

### Conditions

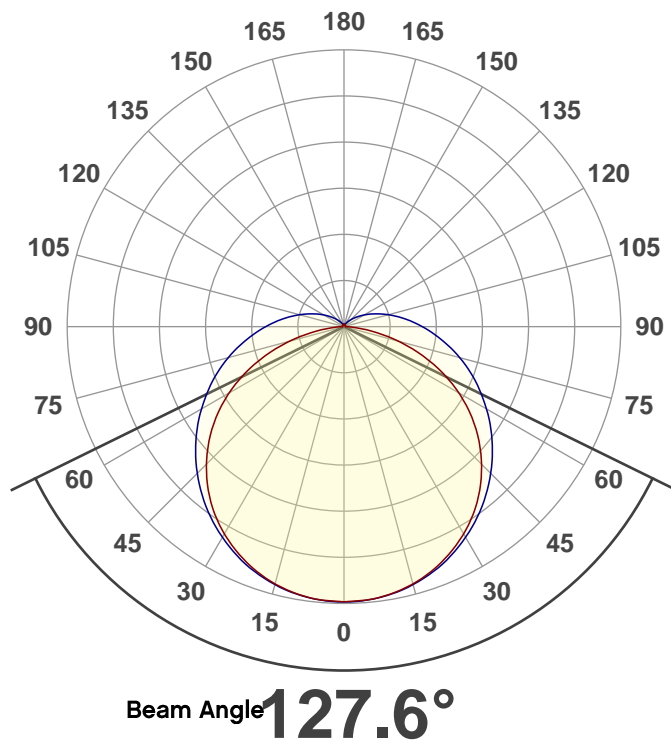
AC Supply: 125 V, 60.1 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



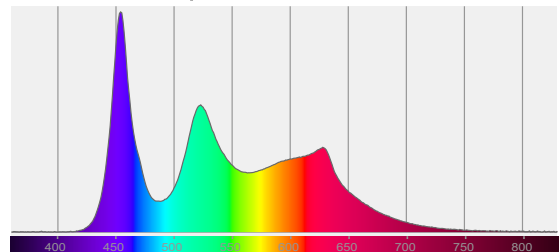
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

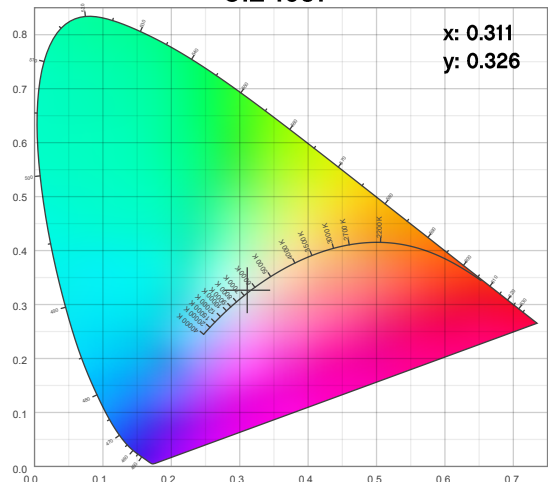
### Angular Beam Distribution



### Spectral Distribution



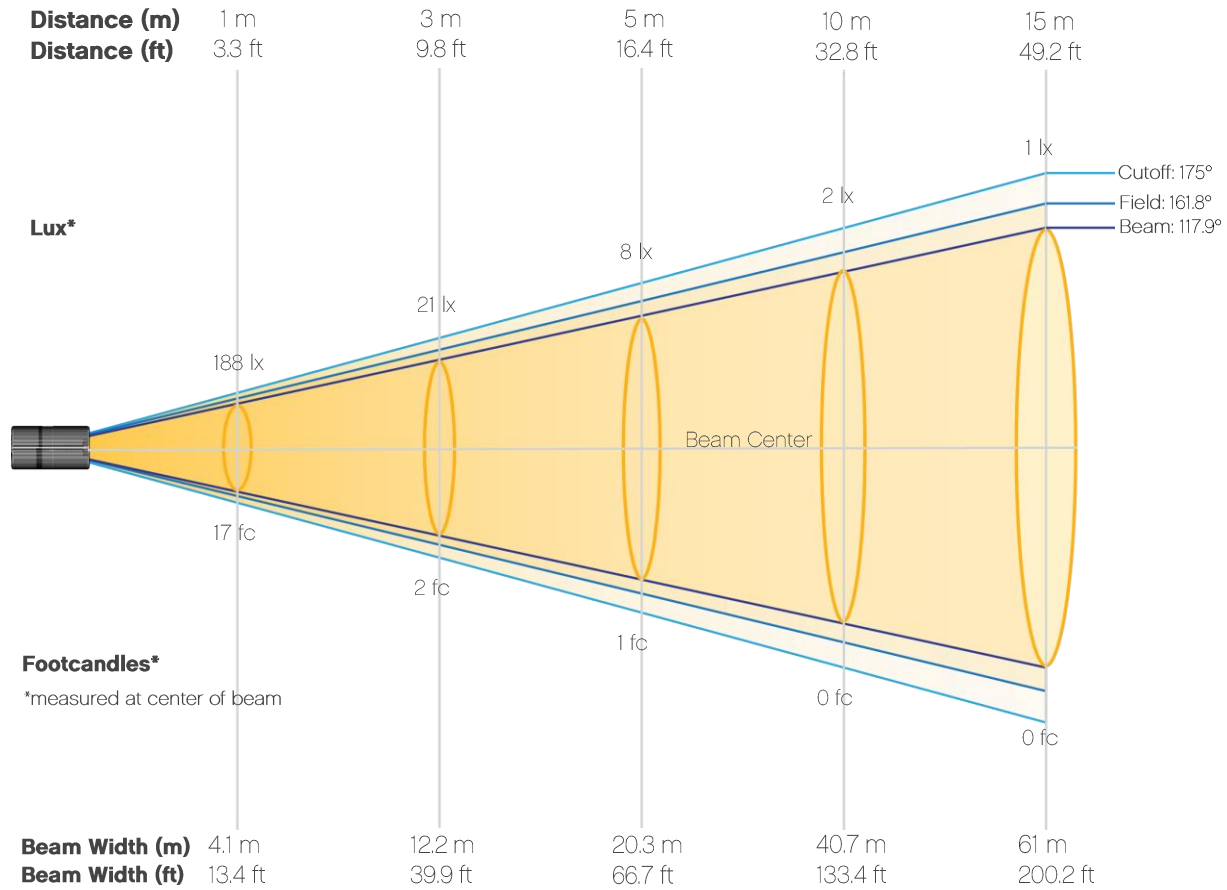
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 6500K – 8 HR

## Beam Details



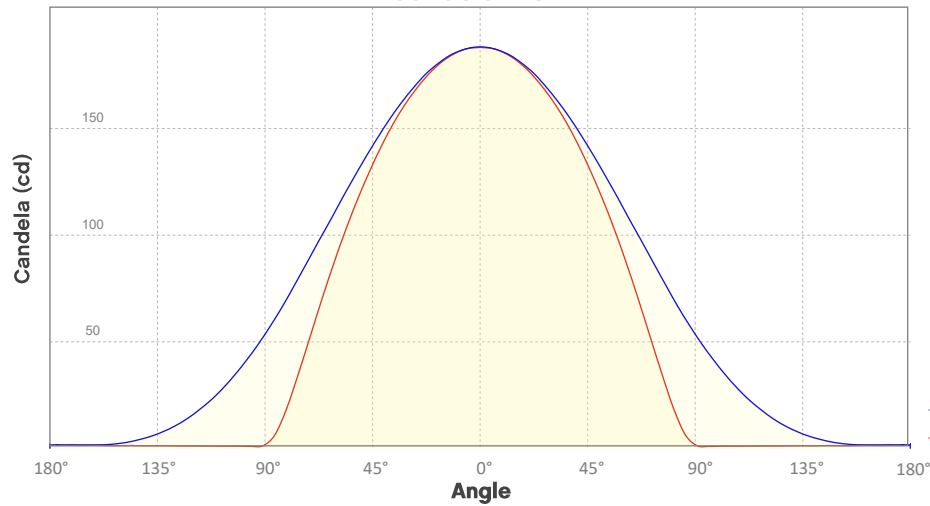
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 188           | 47            | 21            | 12            | 8             | 5             | 4             | 3             | 2             | 2             |
| <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             | 2             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 1             | 0             |
| <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              | 17            | 4             | 2             | 1             | 1             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 6500K – 8 HR

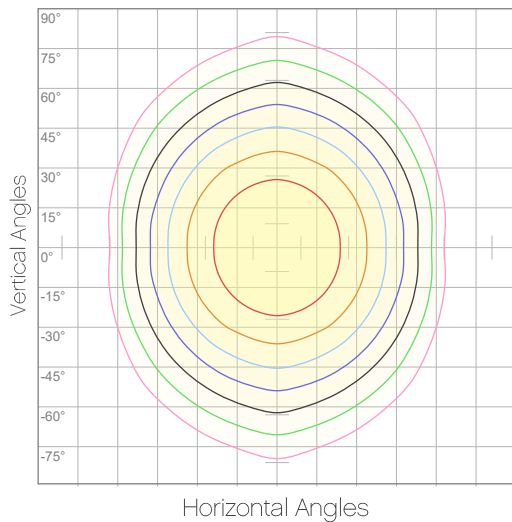
## Candela Plot



Beam Angle (50%): 127.6°  
 Field Angle (10%): 202°  
 Cutoff Angle (3%): 241.2°

— Horizontal Distribution  
 — Vertical Distribution

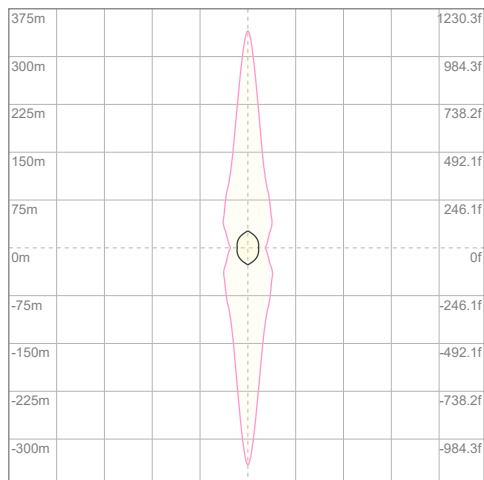
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 19 cd  |
| 20% | 38 cd  |
| 30% | 56 cd  |
| 40% | 75 cd  |
| 50% | 94 cd  |
| 60% | 113 cd |
| 70% | 132 cd |
| 80% | 150 cd |
| 90% | 169 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 188 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 56.4m lx |
| 5%  | 94.0m lx |
| 10% | 0.188 lx |
| 30% | 0.564 lx |
| 50% | 0.940 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.88 lx

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

Mounting height: 10 meters / 33 feet

# Photometric Report

Well STX 180: Standard Optics – 6500K – 12 HR

## Report Summary

### Output

Total Lumens: 427 lm  
Peak Intensity: 111 cd  
Illuminance @ 5m: 4 lux  
Fixture Efficacy: ffi lm/W

### Optical

Horizontal Beam Angle (50%): 117.8°  
Vertical Beam Angle (50%): 138°  
Horizontal Field Angle (10%): 161.9°  
Vertical Field Angle (10%): 233.7°  
Horizontal Cutoff Angle (3%): 175°  
Vertical Cutoff Angle (3%): 282°

### Conditions

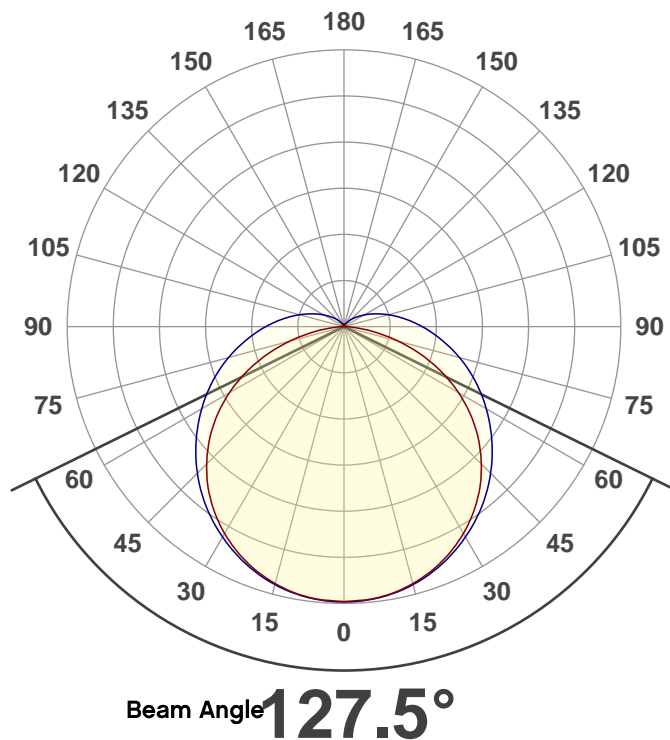
AC Supply: 125 V, 60 Hz  
Power: n/a W  
Current: 0.000 A  
Power Factor: n/a



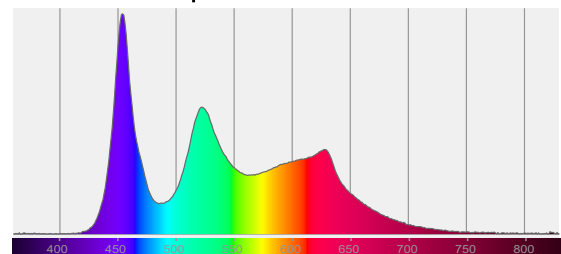
This data sheet conforms to American National Standard E1.9 – 2007 (R2017). All data was measured and calculated by a Viso Systems LabSpion Goniometer at the Chauvet PD Optics Laboratory in Sunrise, FL on 11/11/2019 to LM-63-2002 Standards.

## Overall Measurement

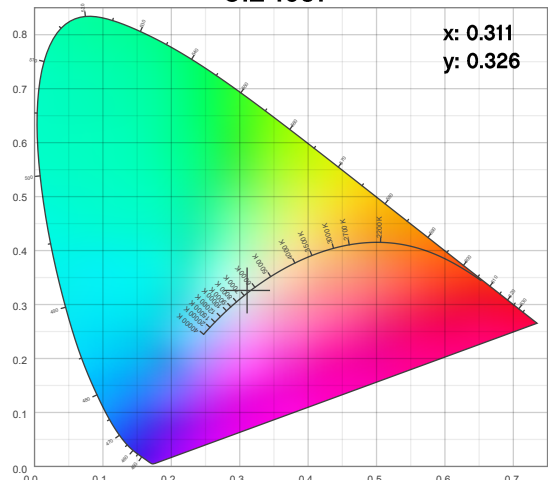
### Angular Beam Distribution



### Spectral Distribution



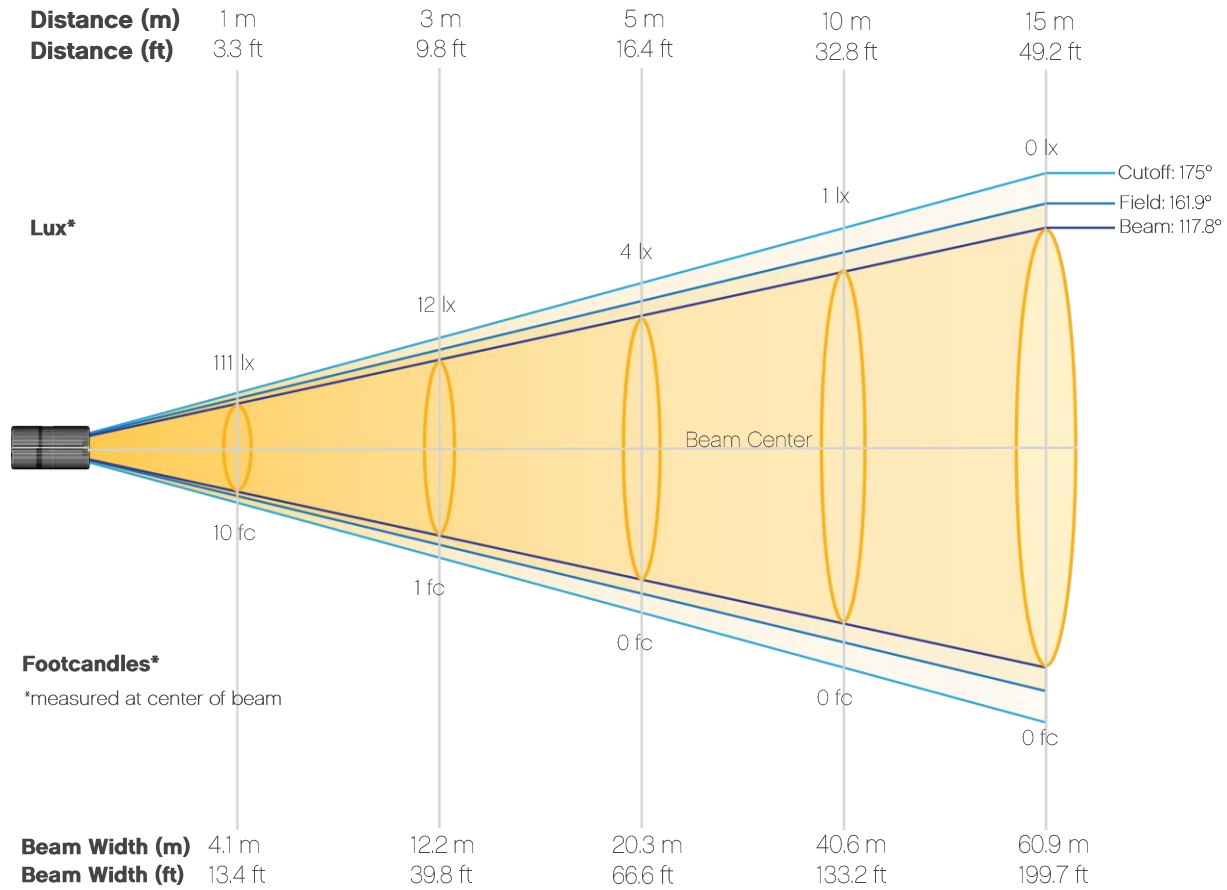
### CIE 1931



# Photometric Report

Well STX 180: Standard Optics – 6500K – 12 HR

## Beam Details



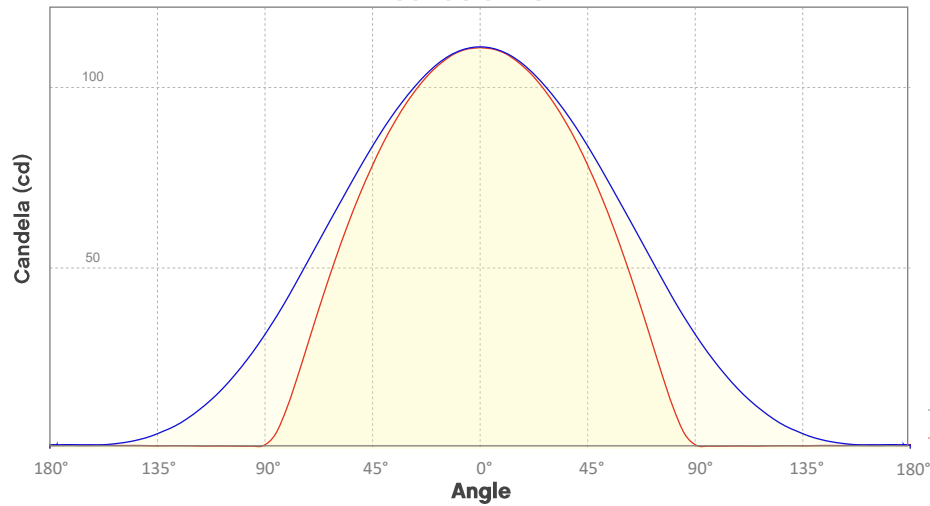
### Beam Illuminances from 1-20m (3.3-65.6ft)

|                 |               |               |               |               |               |               |               |               |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <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             | 111           | 28            | 12            | 7             | 4             | 3             | 2             | 2             | 1             | 1             |
| <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             | 1             | 1             | 1             | 1             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 10            | 3             | 1             | 1             | 0             | 0             | 0             | 0             | 0             | 0             |
| <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              | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |

# Photometric Report

Well STX 180: Standard Optics – 6500K – 12 HR

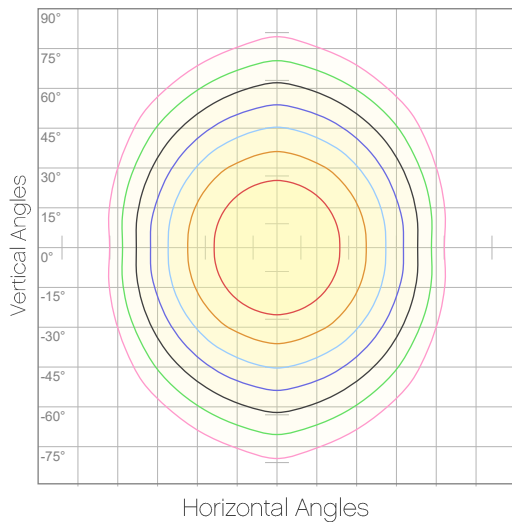
## Candela Plot



Beam Angle (50%): 127.5°  
 Field Angle (10%): 202°  
 Cutoff Angle (3%): 241.5°

— Horizontal Distribution  
 — Vertical Distribution

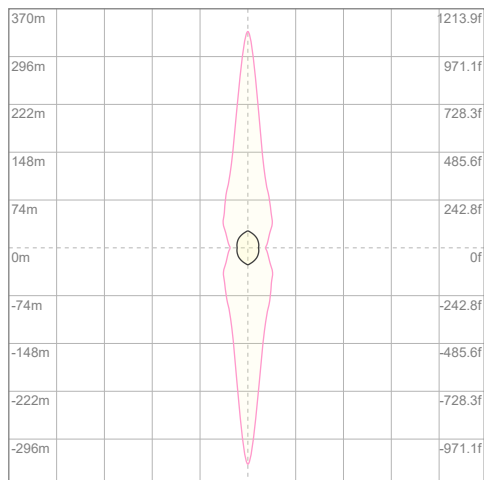
## Polar Diagrams



### iso-candela Diagram

|     |        |
|-----|--------|
| 10% | 11 cd  |
| 20% | 22 cd  |
| 30% | 33 cd  |
| 40% | 44 cd  |
| 50% | 56 cd  |
| 60% | 67 cd  |
| 70% | 78 cd  |
| 80% | 89 cd  |
| 90% | 100 cd |

Conditions:  
 Number of c-planes: 8  
 Candela at center: 111 cd



### iso-illuminance Diagram

|     |          |
|-----|----------|
| 3%  | 33.3m lx |
| 5%  | 55.5m lx |
| 10% | 0.111 lx |
| 30% | 0.333 lx |
| 50% | 0.555 lx |

Conditions:  
 Number of c-planes: 8  
 Lux at center: 1.11 lx

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

Mounting height: 10 meters / 33 feet

# Chromaticity Report

Well STX 180: Standard Optics – Full Power – 3 HR

## Report Summary

### Measurements

Total Lumens: 1378 lm

Peak Intensity: 361 cd

Fixture Efficacy: ffl lm/W

Correlated Color Temperature: 1005 K

$\Delta uv$ : -0.0279

CRI: 59.0      CRI R9 Value: -103.8

CQS: 83.5

TLCI: 64

TM-30-18 Rf: 71.6

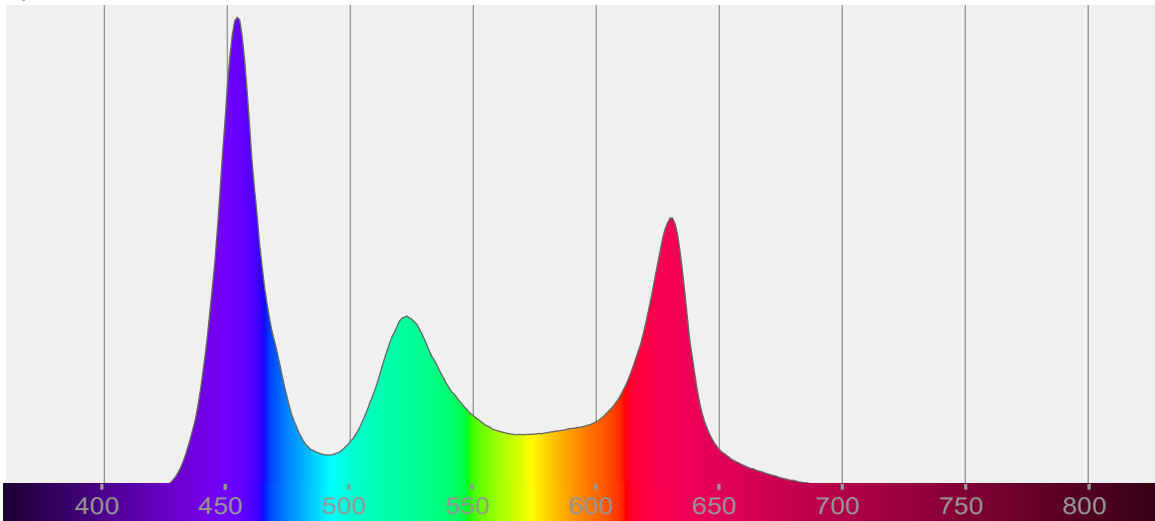
TM-30-18 Rg: 117.7

1<sup>st</sup> Dominant Wavelength: 454 nm

2<sup>nd</sup> Dominant Wavelength: 630 nm



### Spectral Distribution



#### Tested Color

10050 K

CIE 1931 Coordinates:

X: 0.295    Y: 0.261

#### Color Temperature

10050 K

#### Light Quality

CRI: 59.0

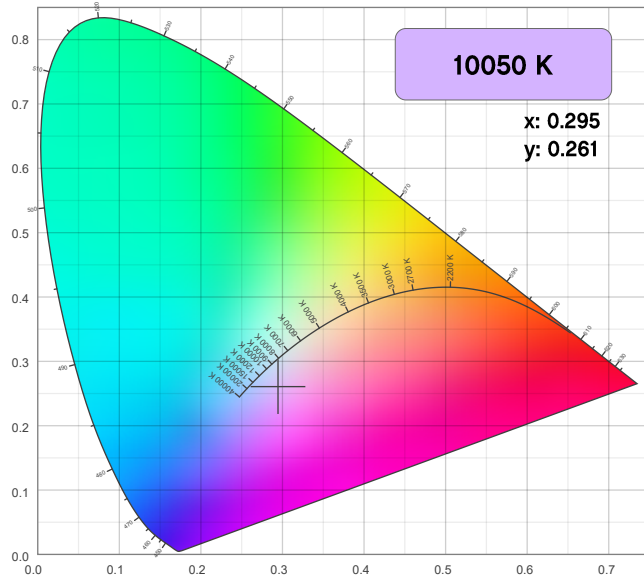
#### Notes:

# Chromaticity Report

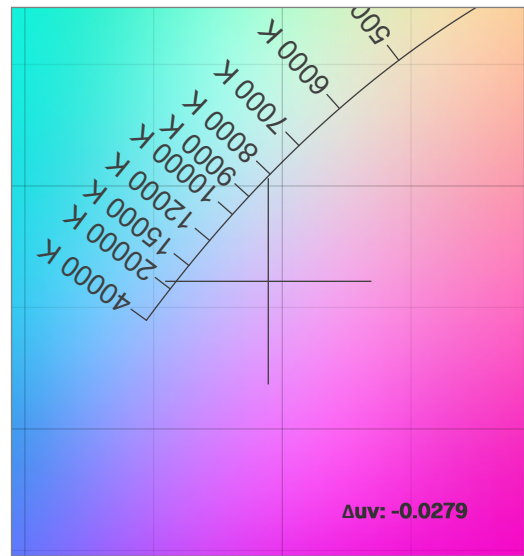
Well STX 180: Standard Optics – Full Power – 3 HR

## Chromaticity

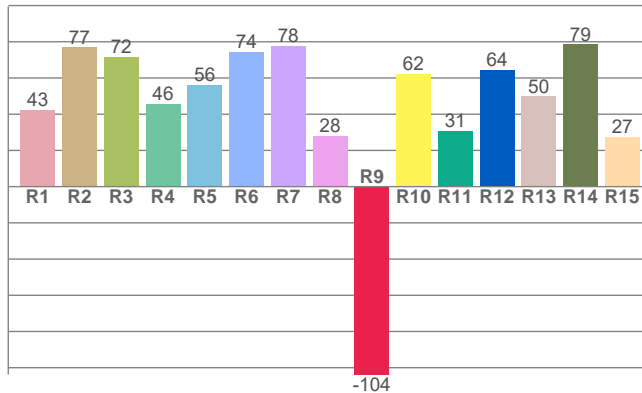
CIE 1931



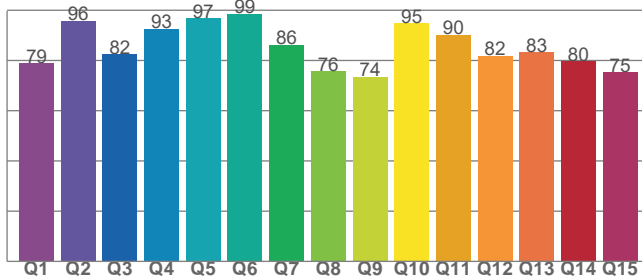
CIE 1931 - Zoom



CRI: 59.0 (R1-R8)



CQS: 83.5



Color Parameters

| Color Temperature | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 |
|-------------------|---------------------------|---------------------------|
| CCT               | x                         | y                         |
| 10050 K           | 0.295                     | 0.261                     |

| Color Deviation from Black Body Curve | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---------------------------------------|---------------------------|---------------------------|
| $\Delta uv$                           | y                         | u                         |
| -0.0279                               | 0.261                     | 0.213                     |

| Color Rendering Index | Red Component | Color Quality Scale |
|-----------------------|---------------|---------------------|
| CRI                   | CRI - R9      | CQS                 |
| 59.0                  | -103.8        | 83.5                |

| Television Lighting Consistency Index | Color Fidelity | Color Gamut |
|---------------------------------------|----------------|-------------|
| TLCI                                  | TM-30-18 - Rf  | TM-30-18 Rg |
| 64                                    | 71.6           | 117.7       |



# Chromaticity Report

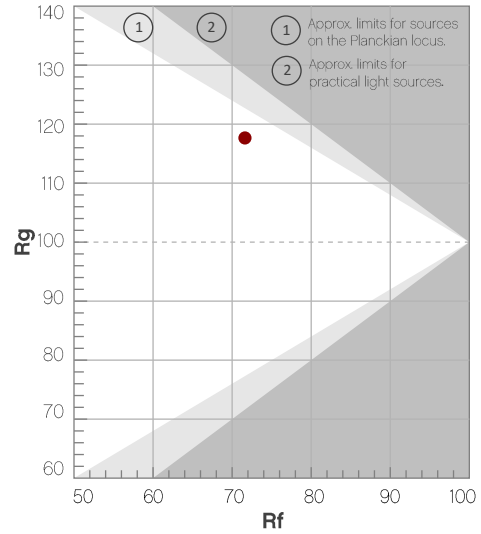
Well STX 180: Standard Optics – Full Power – 3 HR

## TM-30-18 Details

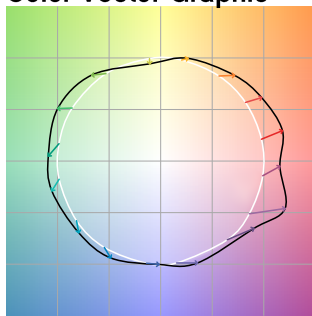
**Rf 71.6**  
Fidelity Index (R<sub>f</sub>)

**Rg 117.7**  
Gamut Index (R<sub>g</sub>)

| Hue Bin | R <sub>f</sub> | Chroma Shift | Hue Shift |
|---------|----------------|--------------|-----------|
| 1       | 55             | 22%          | 4%        |
| 2       | 64             | 16%          | -5%       |
| 3       | 72             | 9%           | -12%      |
| 4       | 83             | 3%           | -6%       |
| 5       | 79             | -5%          | 1%        |
| 6       | 75             | 7%           | 12%       |
| 7       | 77             | 11%          | 8%        |
| 8       | 65             | 8%           | 14%       |
| 9       | 78             | 9%           | 10%       |
| 10      | 82             | 5%           | 11%       |
| 11      | 73             | 5%           | 11%       |
| 12      | 82             | -1%          | 12%       |
| 13      | 72             | 4%           | 20%       |
| 14      | 53             | 5%           | 28%       |
| 15      | 57             | 26%          | 24%       |
| 16      | 58             | 15%          | 12%       |



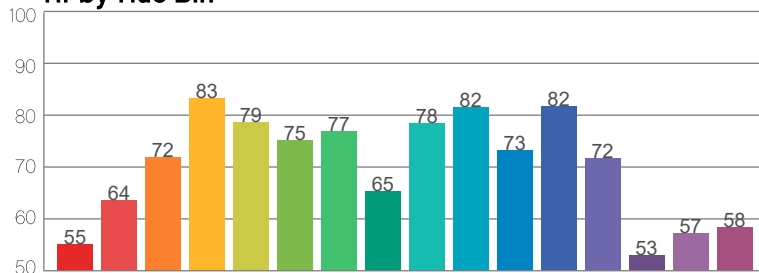
Color Vector Graphic



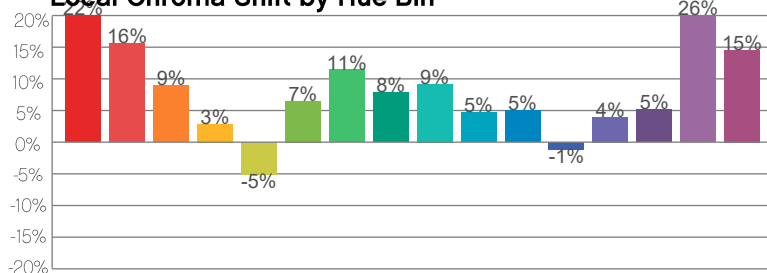
Color Distortion Graphic



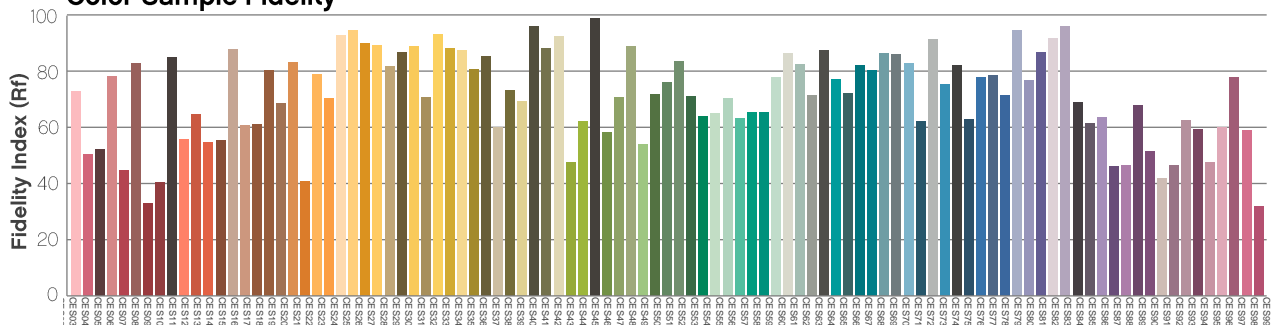
R<sub>f</sub> by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



# Chromaticity Report

Well STX 180: Standard Optics – Red – 3 HR

## Report Summary

### Measurements

Total Lumens: 192 lm

Peak Intensity: 49.8 cd

Fixture Efficacy: ffl lm/W

Correlated Color Temperature: 0K

$\Delta uv$ : n/a

CRI: 0.0      CRI R9 Value: 0.0

CQS: 0.0

TLCI: n/a

TM-30-18 Rf: 0.0

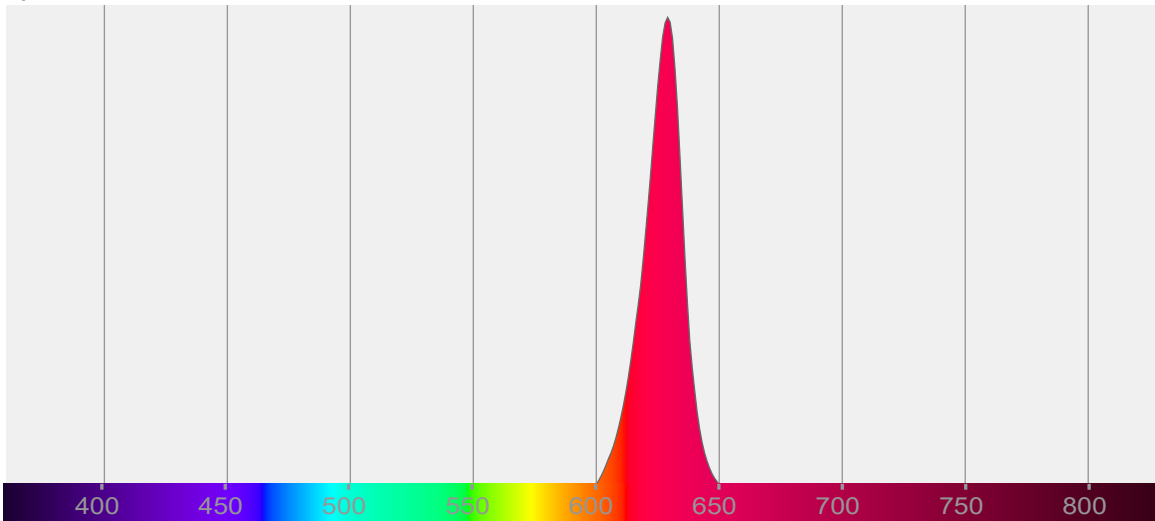
TM-30-18 Rg: 0.0

1<sup>st</sup> Dominant Wavelength: 629 nm

2<sup>nd</sup> Dominant Wavelength: n/a nM



### Spectral Distribution



### Tested Color

**0 K**  
CIE 1931 Coordinates:  
X: 0.694   Y: 0.304

### Color Temperature

0 K

### Light Quality

CRI: 0.0

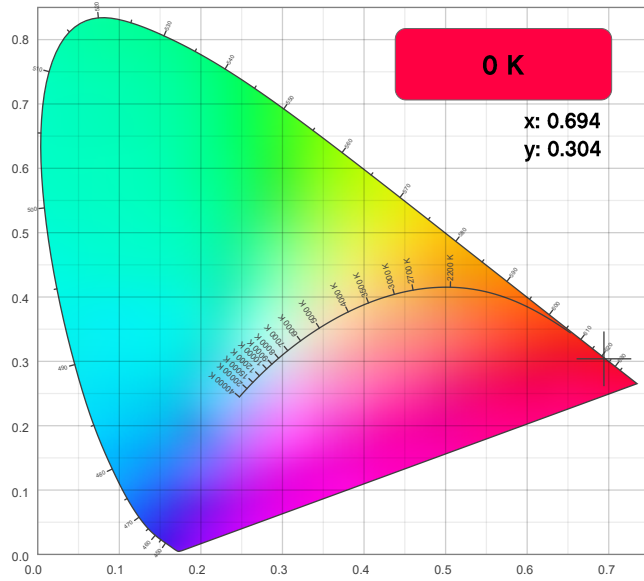
### Notes:

# Chromaticity Report

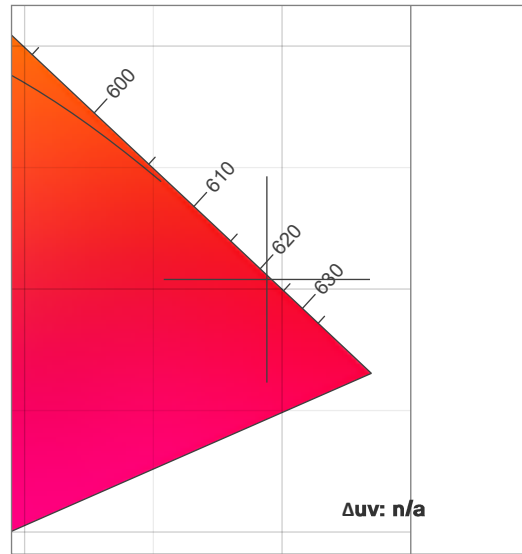
Well STX 180: Standard Optics – Red – 3 HR

## Chromaticity

CIE 1931



CIE 1931 - Zoom



CRI: 0.0 (R1-R8)

|    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
|    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0   | 0   | 0   | 0   | 0   |
| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |

CQS: 0.0

|    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
|    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
|    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |

### Color Parameters

| Color Temperature | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 |
|-------------------|---------------------------|---------------------------|
| CCT               | x                         | y                         |
| 0 K               | 0.694                     | 0.304                     |

| Color Deviation from Black Body Curve | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---------------------------------------|---------------------------|---------------------------|
| Δuv                                   | y                         | u                         |
| n/a                                   | 0.304                     | 0.528                     |

| Color Rendering Index | Red Component | Color Quality Scale |
|-----------------------|---------------|---------------------|
| CRI                   | CRI - R9      | CQS                 |
| 0.0                   | 0.0           | 0.0                 |

| Television Lighting Consistency Index | Color Fidelity | Color Gamut |
|---------------------------------------|----------------|-------------|
| TLCI                                  | TM-30-18 - Rf  | TM-30-18 Rg |
| n/a                                   | 0.0            | 0.0         |

# Chromaticity Report

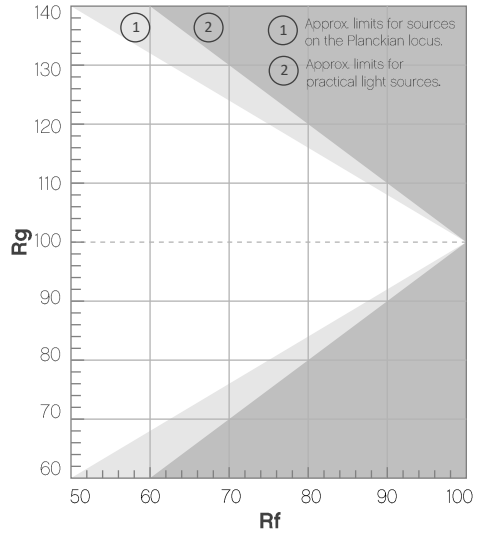
Well STX 180: Standard Optics – Red – 3 HR

## TM-30-18 Details

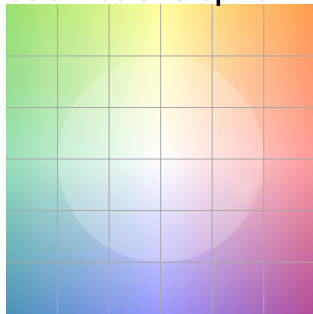
**Rf 0.0**  
Fidelity Index (Rg)

**Rg 0.0**  
Gamut Index (Rg)

| Hue Bin | R <sub>f</sub> | Chroma Shift | Hue Shift |
|---------|----------------|--------------|-----------|
| 1       | 0              | 0%           | 0%        |
| 2       | 0              | 0%           | 0%        |
| 3       | 0              | 0%           | 0%        |
| 4       | 0              | 0%           | 0%        |
| 5       | 0              | 0%           | 0%        |
| 6       | 0              | 0%           | 0%        |
| 7       | 0              | 0%           | 0%        |
| 8       | 0              | 0%           | 0%        |
| 9       | 0              | 0%           | 0%        |
| 10      | 0              | 0%           | 0%        |
| 11      | 0              | 0%           | 0%        |
| 12      | 0              | 0%           | 0%        |
| 13      | 0              | 0%           | 0%        |
| 14      | 0              | 0%           | 0%        |
| 15      | 0              | 0%           | 0%        |
| 16      | 0              | 0%           | 0%        |



Color Vector Graphic



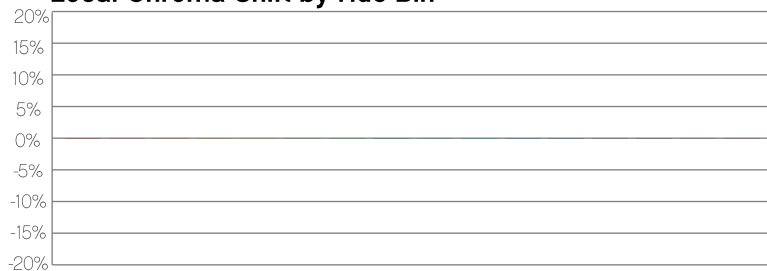
Color Distortion Graphic



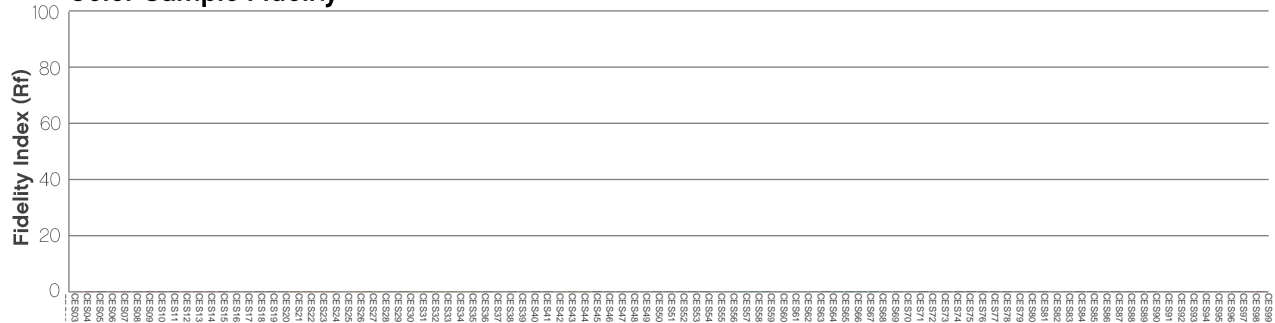
R<sub>f</sub> by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



# Chromaticity Report

Well STX 180: Standard Optics – Green – 3 HR

## Report Summary

### Measurements

Total Lumens: 187 lm

Peak Intensity: 48.2 cd

Fixture Efficacy: ffl lm/W

Correlated Color Temperature: 0K

$\Delta uv$ : n/a

CRI: 0.0      CRI R9 Value: 0.0

CQS: 0.0

TLCI: n/a

TM-30-18 Rf: 0.0

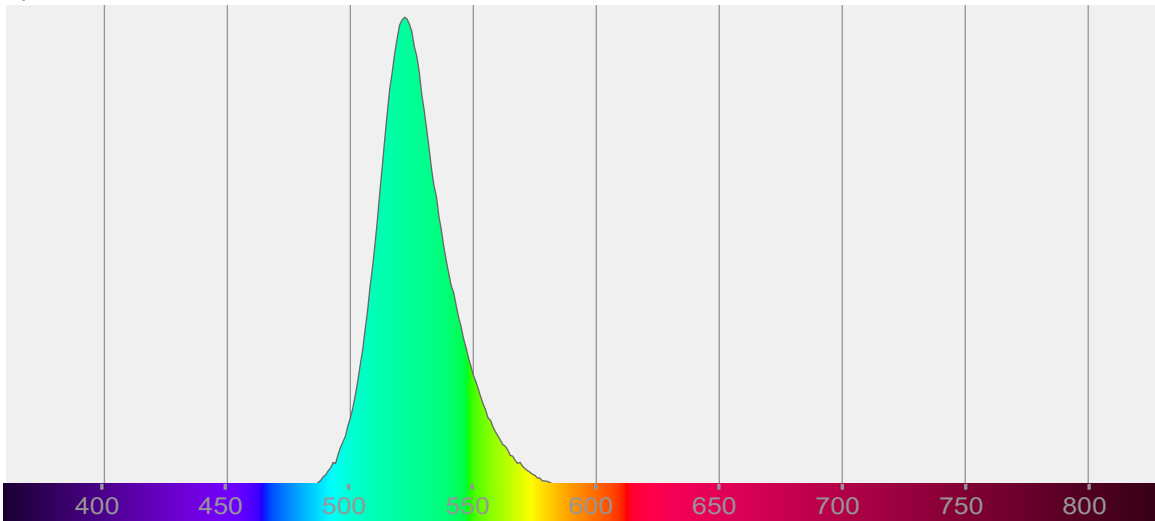
TM-30-18 Rg: 0.0

1<sup>st</sup> Dominant Wavelength: 522 nM

2<sup>nd</sup> Dominant Wavelength: n/a nM



### Spectral Distribution



### Tested Color

**0 K**  
CIE 1931 Coordinates:  
X: 0.181   Y: 0.733

### Color Temperature

0 K

### Light Quality

CRI: 0.0

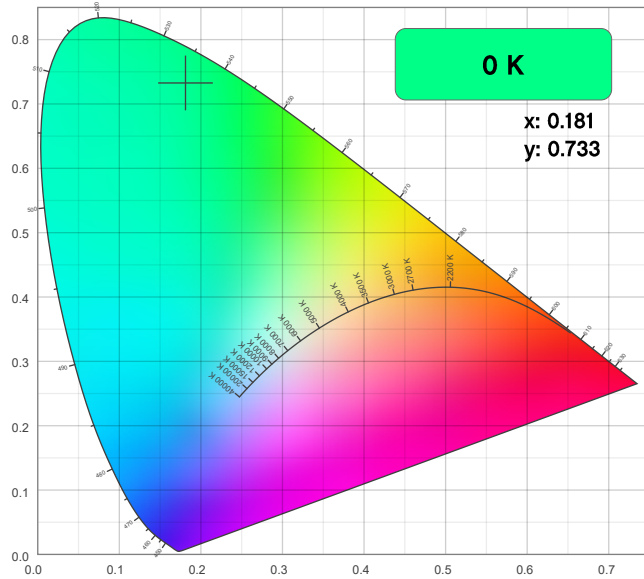
### Notes:

# Chromaticity Report

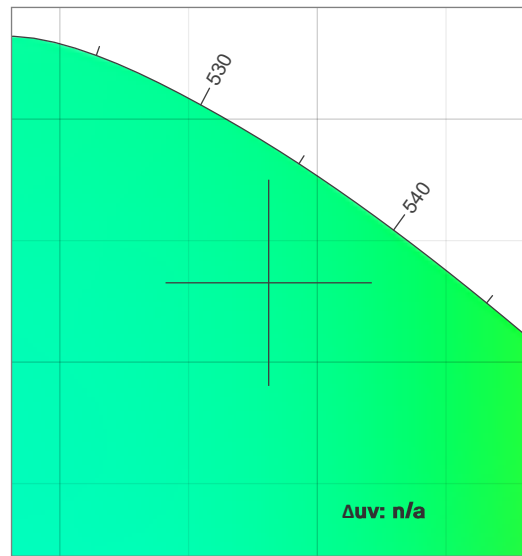
Well STX 180: Standard Optics – Green – 3 HR

## Chromaticity

CIE 1931



CIE 1931 - Zoom



CRI: 0.0 (R1-R8)

|    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |   |
|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|---|
|    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |   |
| 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0 |
| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |   |

CQS: 0.0

|    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |  |
|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|--|
|    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |  |
|    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |  |
| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |  |

Color Parameters

| Color Temperature | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 |
|-------------------|---------------------------|---------------------------|
| CCT               | x                         | y                         |
| 0 K               | 0.181                     | 0.733                     |

| Color Deviation from Black Body Curve | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---------------------------------------|---------------------------|---------------------------|
| $\Delta uv$                           | y                         | u                         |
| n/a                                   | 0.733                     | 0.063                     |

| Color Rendering Index | Red Component | Color Quality Scale |
|-----------------------|---------------|---------------------|
| CRI                   | CRI - R9      | CQS                 |
| 0.0                   | 0.0           | 0.0                 |

| Television Lighting Consistency Index | Color Fidelity | Color Gamut |
|---------------------------------------|----------------|-------------|
| TLCI                                  | TM-30-18 - Rf  | TM-30-18 Rg |
| n/a                                   | 0.0            | 0.0         |

# Chromaticity Report

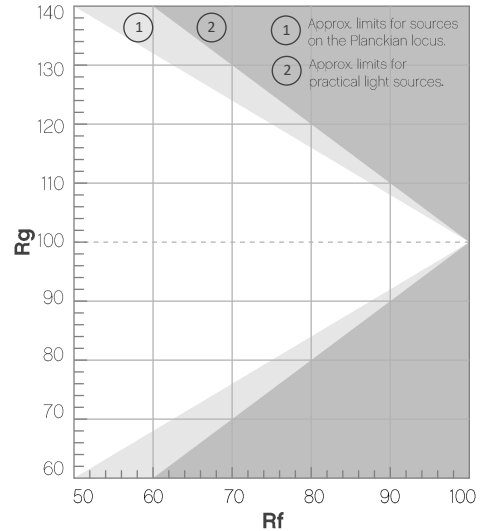
Well STX 180: Standard Optics – Green – 3 HR

## TM-30-18 Details

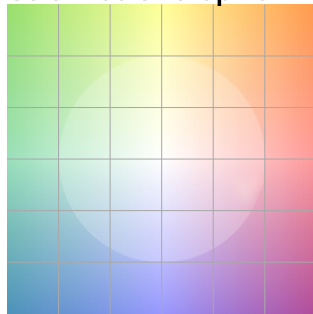
**Rf 0.0**  
Fidelity Index (Rg)

**Rg 0.0**  
Gamut Index (Rg)

| Hue Bin | R <sub>f</sub> | Chroma Shift | Hue Shift |
|---------|----------------|--------------|-----------|
| 1       | 0              | 0%           | 0%        |
| 2       | 0              | 0%           | 0%        |
| 3       | 0              | 0%           | 0%        |
| 4       | 0              | 0%           | 0%        |
| 5       | 0              | 0%           | 0%        |
| 6       | 0              | 0%           | 0%        |
| 7       | 0              | 0%           | 0%        |
| 8       | 0              | 0%           | 0%        |
| 9       | 0              | 0%           | 0%        |
| 10      | 0              | 0%           | 0%        |
| 11      | 0              | 0%           | 0%        |
| 12      | 0              | 0%           | 0%        |
| 13      | 0              | 0%           | 0%        |
| 14      | 0              | 0%           | 0%        |
| 15      | 0              | 0%           | 0%        |
| 16      | 0              | 0%           | 0%        |



Color Vector Graphic



Color Distortion Graphic



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



Local Chroma Shift by Hue Bin



Color Sample Fidelity



# Chromaticity Report

Well STX 180: Standard Optics – Blue – 3 HR

## Report Summary

### Measurements

Total Lumens: 86.3 lm

Peak Intensity: 22.0 cd

Fixture Efficacy: ffl lm/W

Correlated Color Temperature: 0K

$\Delta uv$ : n/a

CRI: 0.0      CRI R9 Value: 0.0

CQS: 0.0

TLCI: n/a

TM-30-18 Rf: 0.0

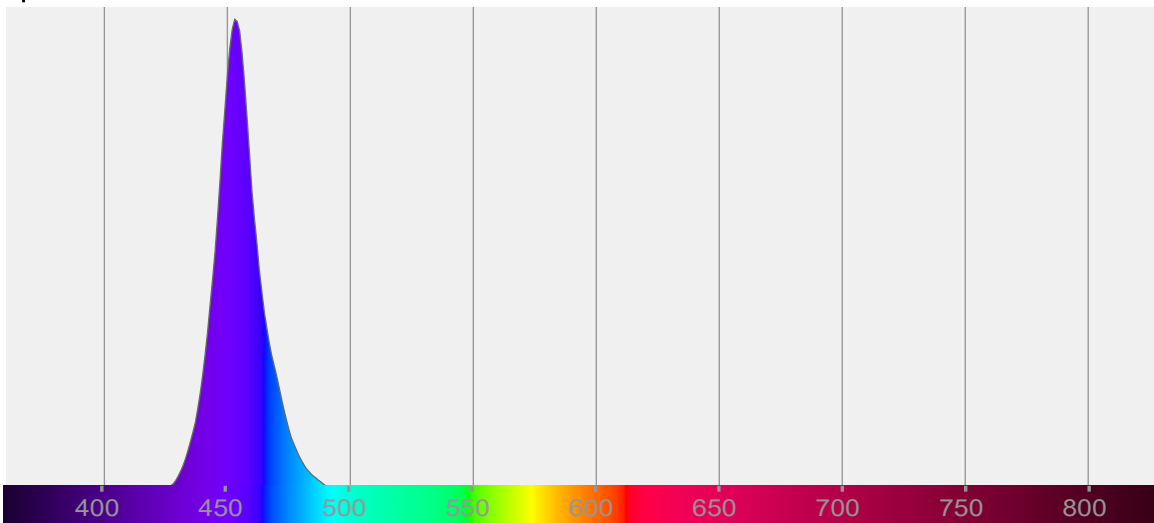
TM-30-18 Rg: 0.0

1<sup>st</sup> Dominant Wavelength: 453 nM

2<sup>nd</sup> Dominant Wavelength: n/a nM



### Spectral Distribution



#### Tested Color

**0 K**  
CIE 1931 Coordinates:  
X: 0.150   Y: 0.031

#### Color Temperature

0 K

#### Light Quality

CRI: 0.0

#### Notes:





# Chromaticity Report

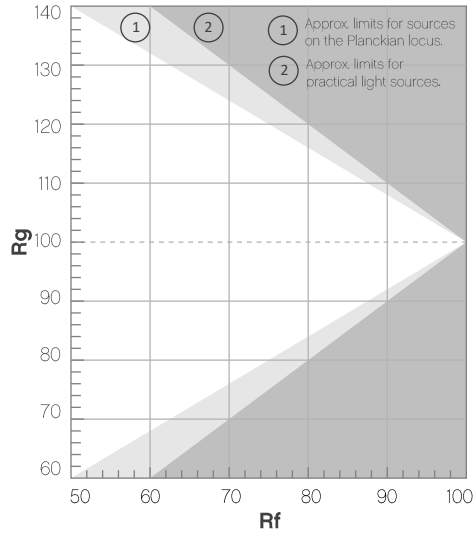
Well STX 180: Standard Optics – Blue – 3 HR

## TM-30-18 Details

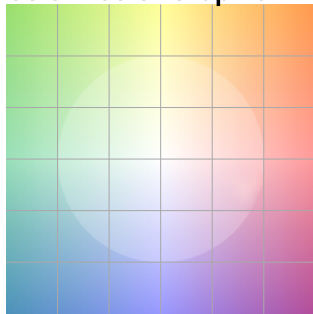
**Rf 0.0**  
Fidelity Index (Rg)

**Rg 0.0**  
Gamut Index (Rg)

| Hue Bin | R <sub>f</sub> | Chroma Shift | Hue Shift |
|---------|----------------|--------------|-----------|
| 1       | 0              | 0%           | 0%        |
| 2       | 0              | 0%           | 0%        |
| 3       | 0              | 0%           | 0%        |
| 4       | 0              | 0%           | 0%        |
| 5       | 0              | 0%           | 0%        |
| 6       | 0              | 0%           | 0%        |
| 7       | 0              | 0%           | 0%        |
| 8       | 0              | 0%           | 0%        |
| 9       | 0              | 0%           | 0%        |
| 10      | 0              | 0%           | 0%        |
| 11      | 0              | 0%           | 0%        |
| 12      | 0              | 0%           | 0%        |
| 13      | 0              | 0%           | 0%        |
| 14      | 0              | 0%           | 0%        |
| 15      | 0              | 0%           | 0%        |
| 16      | 0              | 0%           | 0%        |



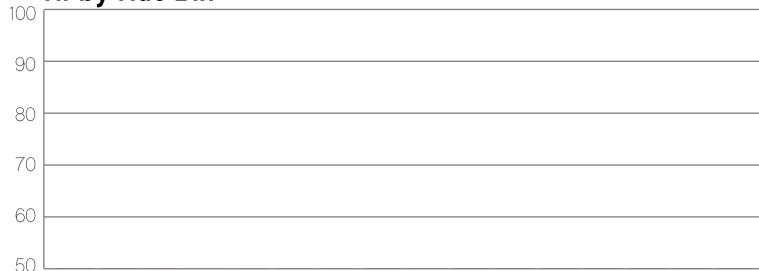
Color Vector Graphic



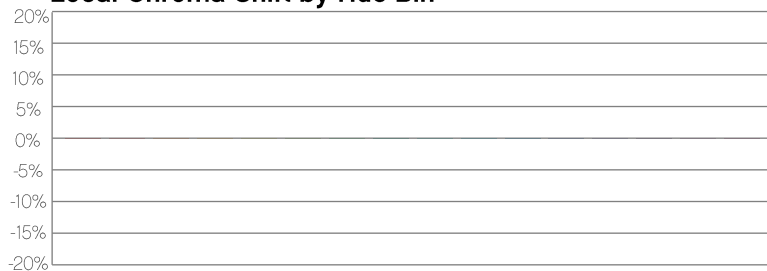
Color Distortion Graphic



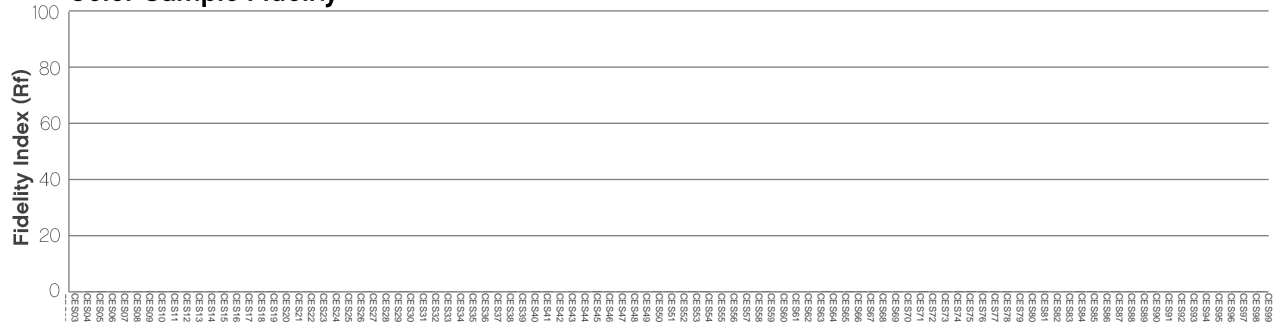
R<sub>f</sub> by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



# Chromaticity Report

Well STX 180: Standard Optics – Warm White – 3 HR

## Report Summary

### Measurements

Total Lumens: 638 lm

Peak Intensity: 167 cd

Fixture Efficacy: ffl lm/W

Correlated Color Temperature: 3136 K

$\Delta uv$ : -0.0016

CRI: 84.9      CRI R9 Value: 15.2

CQS: 83.9

TLCI: 73

TM-30-18 Rf: 83.3

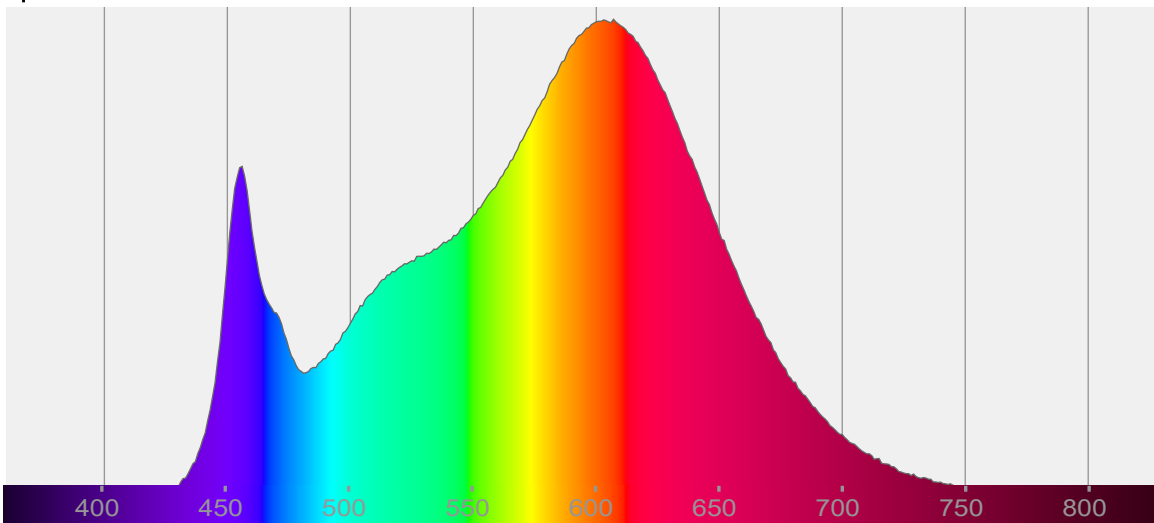
TM-30-18 Rg: 94.0

1<sup>st</sup> Dominant Wavelength: 607 nm

2<sup>nd</sup> Dominant Wavelength: 456 nm



### Spectral Distribution



#### Tested Color

**3136 K**

**CIE 1931 Coordinates:**

X: 0.426    Y: 0.396

#### Color Temperature

3136 K

#### Light Quality

CRI: 84.9

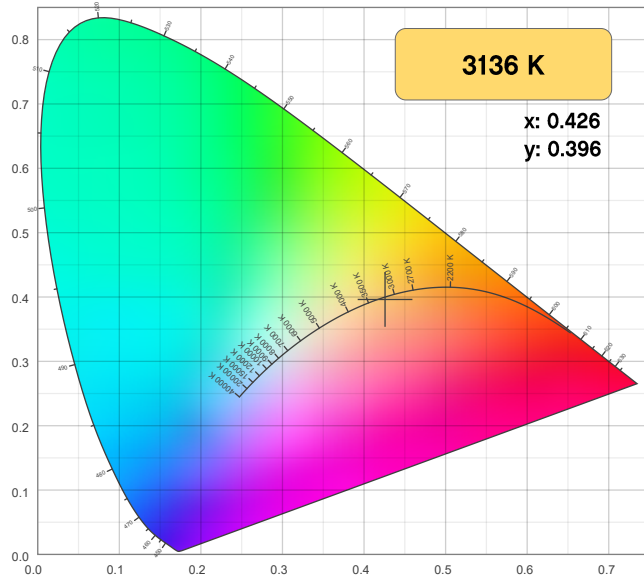
#### Notes:

# Chromaticity Report

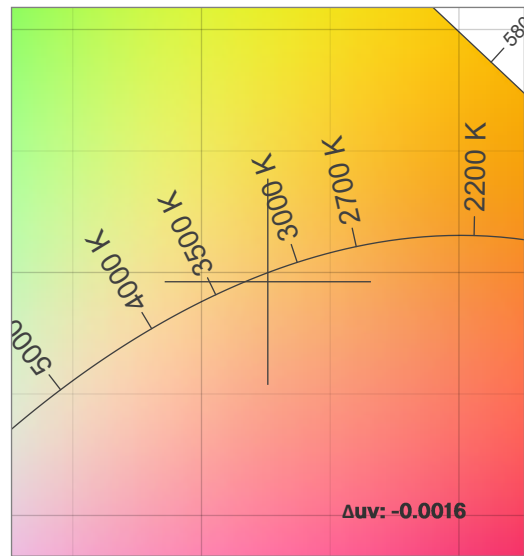
Well STX 180: Standard Optics – Warm White – 3 HR

## Chromaticity

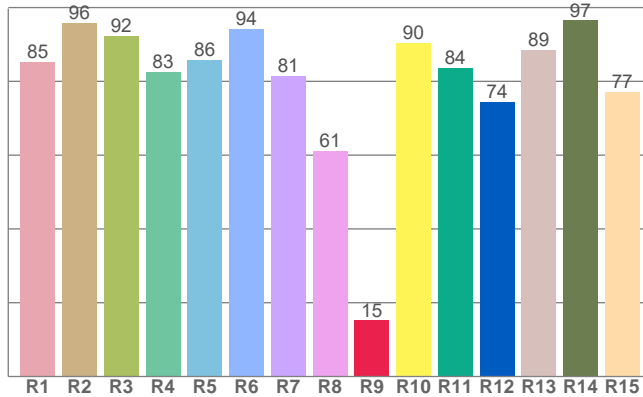
CIE 1931



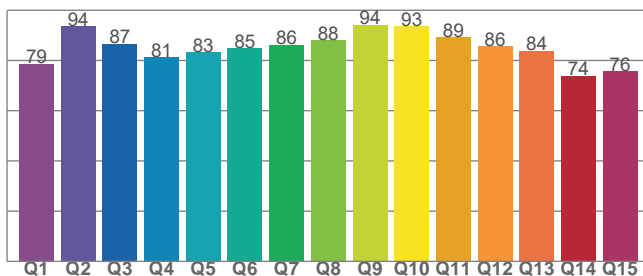
CIE 1931 - Zoom



CRI: 84.9 (R1-R8)



CQS: 83.9



Color Parameters

| Color Temperature | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 |
|-------------------|---------------------------|---------------------------|
| CCT               | x                         | y                         |
| 3136 K            | 0.426                     | 0.396                     |

| Color Deviation from Black Body Curve | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---------------------------------------|---------------------------|---------------------------|
| $\Delta_{uv}$                         | y                         | u                         |
| -0.0016                               | 0.396                     | 0.247                     |

| Color Rendering Index | Red Component | Color Quality Scale |
|-----------------------|---------------|---------------------|
| CRI                   | CRI - R9      | CQS                 |
| 84.9                  | 15.2          | 83.9                |

| Television Lighting Consistency Index | Color Fidelity | Color Gamut |
|---------------------------------------|----------------|-------------|
| TLCI                                  | TM-30-18 - Rf  | TM-30-18 Rg |
| 73                                    | 83.3           | 94.0        |

# Chromaticity Report

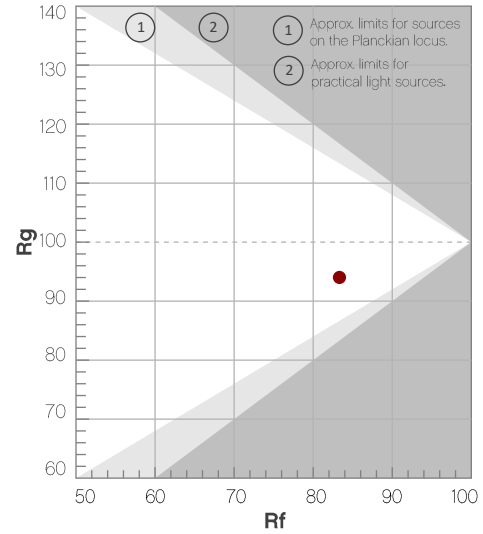
Well STX 180: Standard Optics – Warm White – 3 HR

## TM-30-18 Details

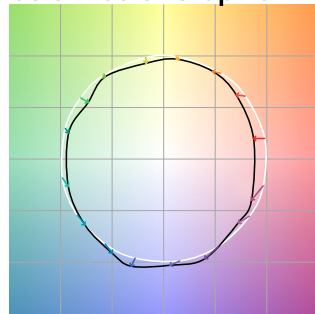
**Rf 83.3**  
Fidelity Index (R<sub>f</sub>)

**Rg 94.0**  
Gamut Index (R<sub>g</sub>)

| Hue Bin | R <sub>f</sub> | Chroma Shift | Hue Shift |
|---------|----------------|--------------|-----------|
| 1       | 78             | -11%         | 2%        |
| 2       | 82             | -7%          | 6%        |
| 3       | 83             | -3%          | 7%        |
| 4       | 91             | -2%          | 2%        |
| 5       | 90             | -6%          | 1%        |
| 6       | 93             | -2%          | -2%       |
| 7       | 84             | -9%          | 0%        |
| 8       | 90             | -4%          | 3%        |
| 9       | 84             | -4%          | 9%        |
| 10      | 77             | -1%          | 12%       |
| 11      | 82             | 4%           | 10%       |
| 12      | 85             | 8%           | -2%       |
| 13      | 84             | 2%           | -10%      |
| 14      | 77             | 3%           | -17%      |
| 15      | 77             | -6%          | -11%      |
| 16      | 73             | -8%          | -16%      |



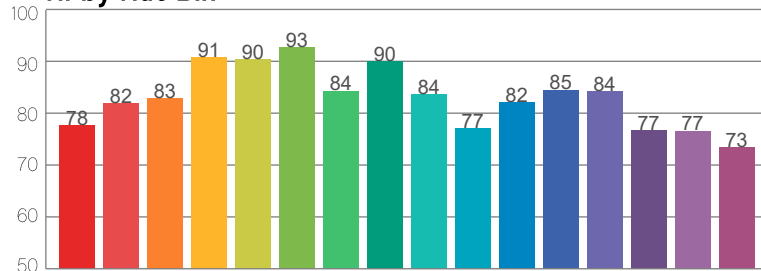
Color Vector Graphic



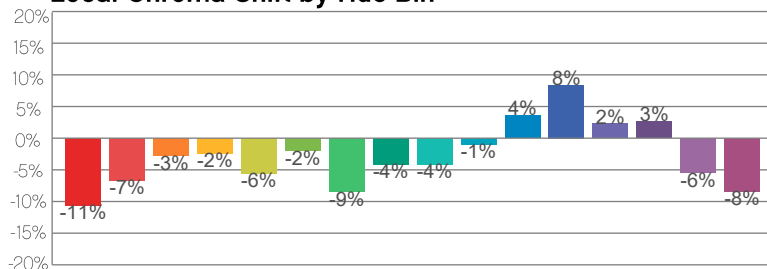
Color Distortion Graphic



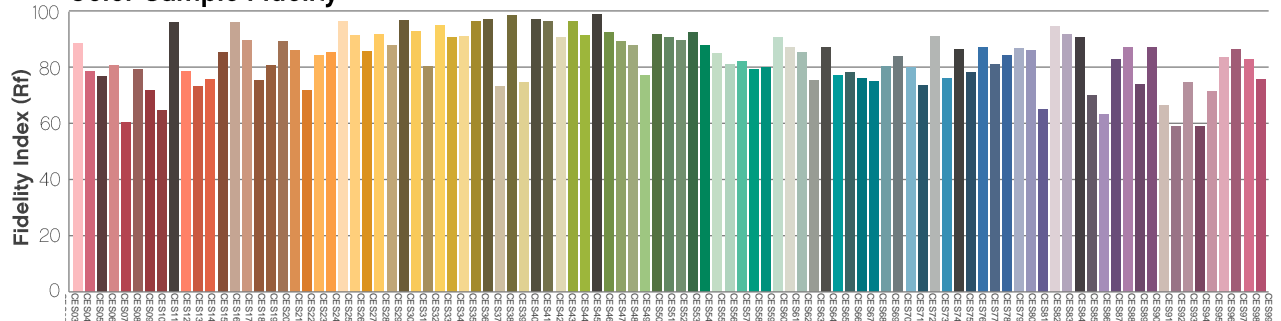
R<sub>f</sub> by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



# Chromaticity Report

Well STX 180: Standard Optics – 2800K – 3 HR

## Report Summary

### Measurements

Total Lumens: 808 lm

Peak Intensity: 211 cd

Fixture Efficacy: ffl lm/W

Correlated Color Temperature: 2951

$\Delta uv$ : 0.0009

CRI: 93.2      CRI R9 Value: 92.7

CQS: 92.4

TLCI: 86

TM-30-18 Rf: 89.3

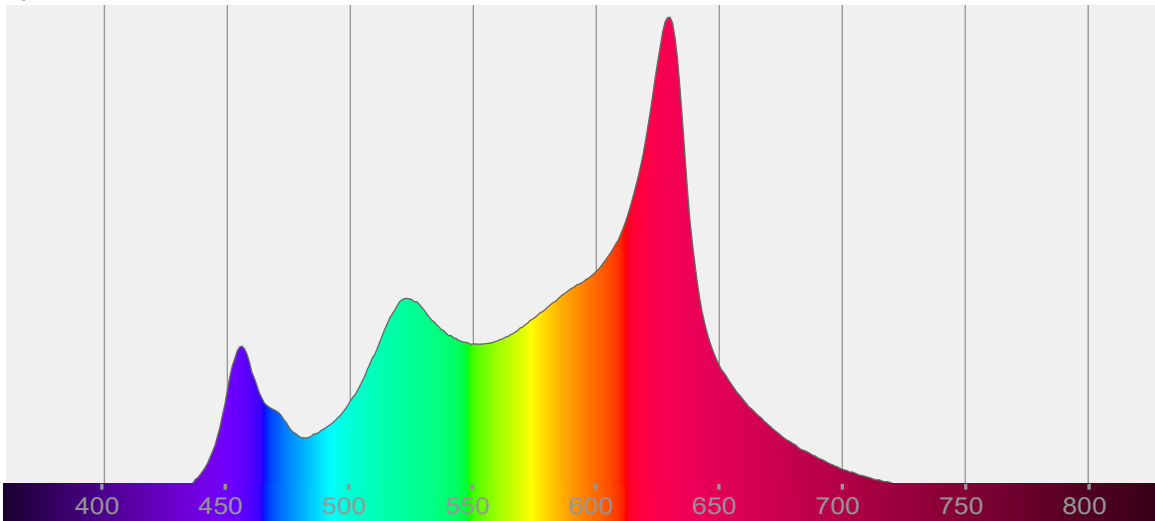
TM-30-18 Rg: 100.6

1<sup>st</sup> Dominant Wavelength: 630 nm

2<sup>nd</sup> Dominant Wavelength: 523 nm



### Spectral Distribution



#### Tested Color

**2951 K**

CIE 1931 Coordinates:

X: 0.442    Y: 0.408

#### Color Temperature

2951 K

#### Light Quality

CRI: 93.2

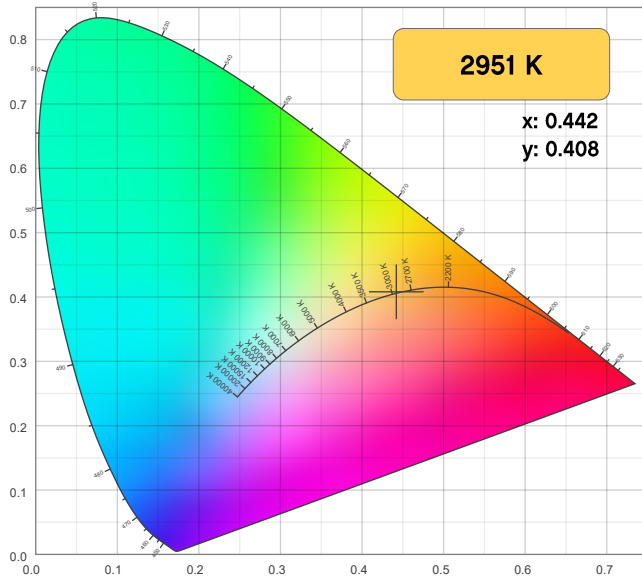
#### Notes:

# Chromaticity Report

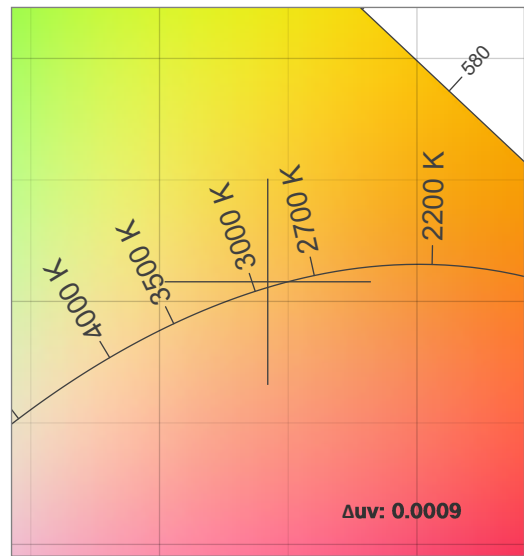
Well STX 180: Standard Optics – 2800K – 3 HR

## Chromaticity

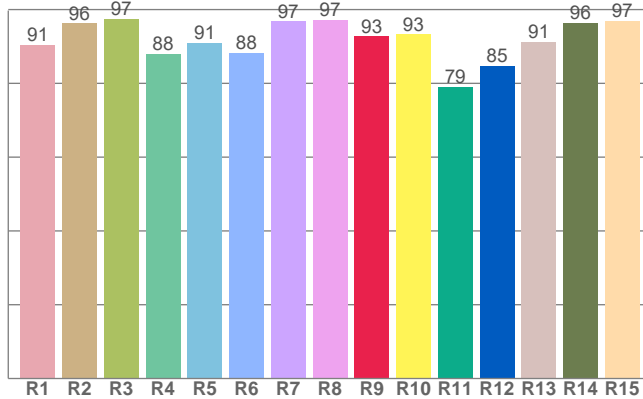
CIE 1931



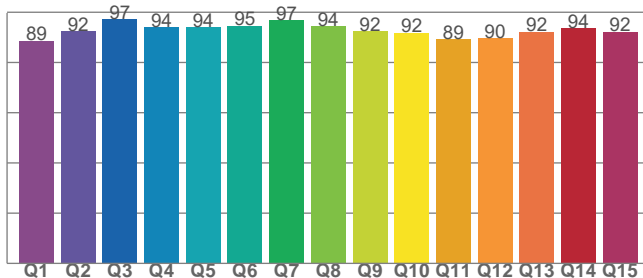
CIE 1931 - Zoom



CRI: 93.2 (R1-R8)



CQS: 92.4



Color Parameters

| Color Temperature | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 |
|-------------------|---------------------------|---------------------------|
| CCT               | x                         | y                         |
| 2951 K            | 0.442                     | 0.408                     |

| Color Deviation from Black Body Curve | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---------------------------------------|---------------------------|---------------------------|
| Δuv                                   | y                         | u                         |
| 0.0009                                | 0.408                     | 0.252                     |

| Color Rendering Index | Red Component | Color Quality Scale |
|-----------------------|---------------|---------------------|
| CRI                   | CRI - R9      | CQS                 |
| 93.2                  | 92.7          | 92.4                |

| Television Lighting Consistency Index | Color Fidelity | Color Gamut |
|---------------------------------------|----------------|-------------|
| TLCI                                  | TM-30-18 - Rf  | TM-30-18 Rg |
| 86                                    | 89.3           | 100.6       |

# Chromaticity Report

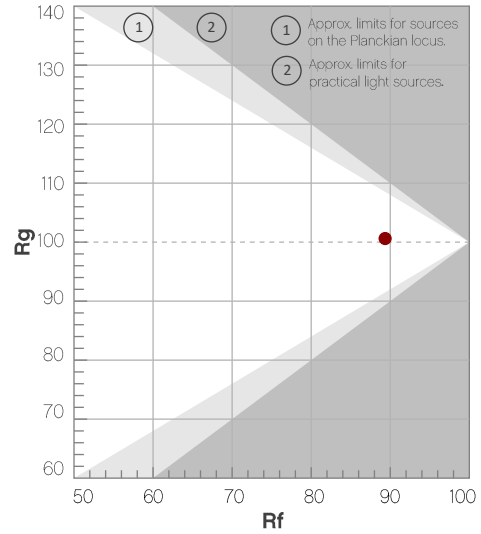
Well STX 180: Standard Optics – 2800K – 3 HR

## TM-30-18 Details

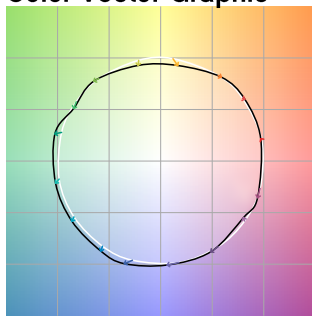
**Rf 89.3**  
Fidelity Index (R<sub>f</sub>)

**Rg 100.6**  
Gamut Index (R<sub>g</sub>)

| Hue Bin | R <sub>f</sub> | Chroma Shift | Hue Shift |
|---------|----------------|--------------|-----------|
| 1       | 92             | -1%          | 1%        |
| 2       | 93             | 1%           | -2%       |
| 3       | 90             | 0%           | -3%       |
| 4       | 87             | -6%          | -6%       |
| 5       | 91             | -5%          | 1%        |
| 6       | 91             | 1%           | 6%        |
| 7       | 86             | -1%          | 7%        |
| 8       | 88             | 6%           | 3%        |
| 9       | 90             | 4%           | 3%        |
| 10      | 91             | 4%           | 2%        |
| 11      | 92             | 5%           | 1%        |
| 12      | 84             | 5%           | -7%       |
| 13      | 84             | 0%           | -12%      |
| 14      | 87             | 0%           | -9%       |
| 15      | 88             | -3%          | 2%        |
| 16      | 86             | -1%          | -9%       |



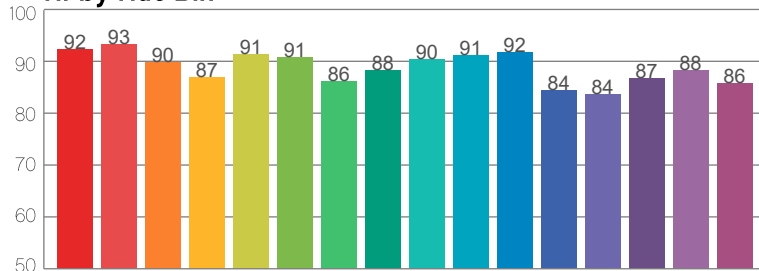
Color Vector Graphic



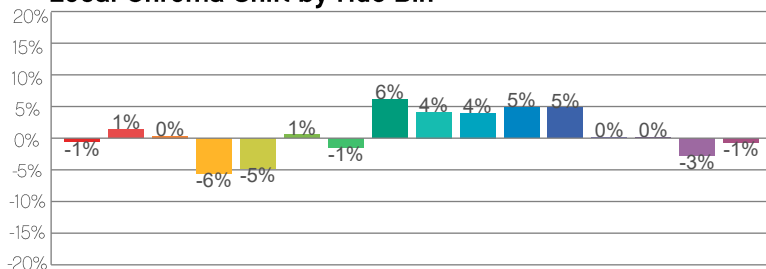
Color Distortion Graphic



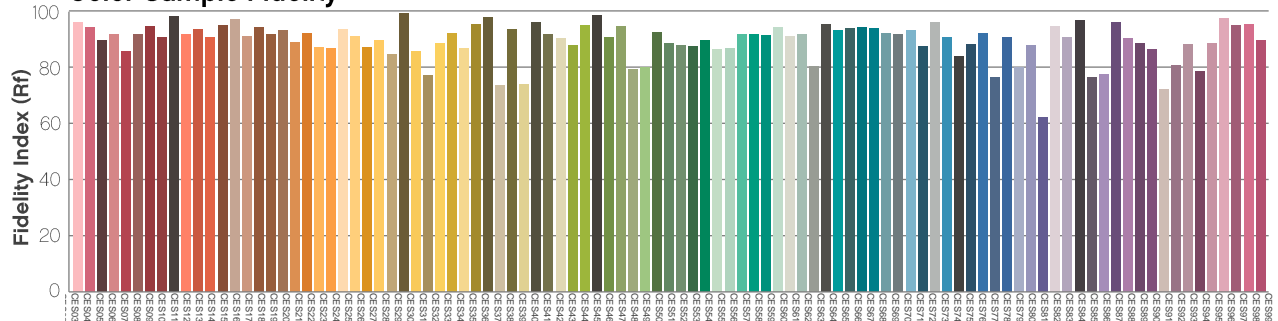
R<sub>f</sub> by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity





# Chromaticity Report

Well STX 180: Standard Optics – 3200K – 3 HR

## Report Summary

### Measurements

Total Lumens: 830 lm

Peak Intensity: 217 cd

Fixture Efficacy: ffl lm/W

Correlated Color Temperature: 3335 K

$\Delta uv$ : 0.0009

CRI: 94.2      CRI R9 Value: 93.4

CQS: 94.0

TLCI: 88

TM-30-18 Rf: 90.1

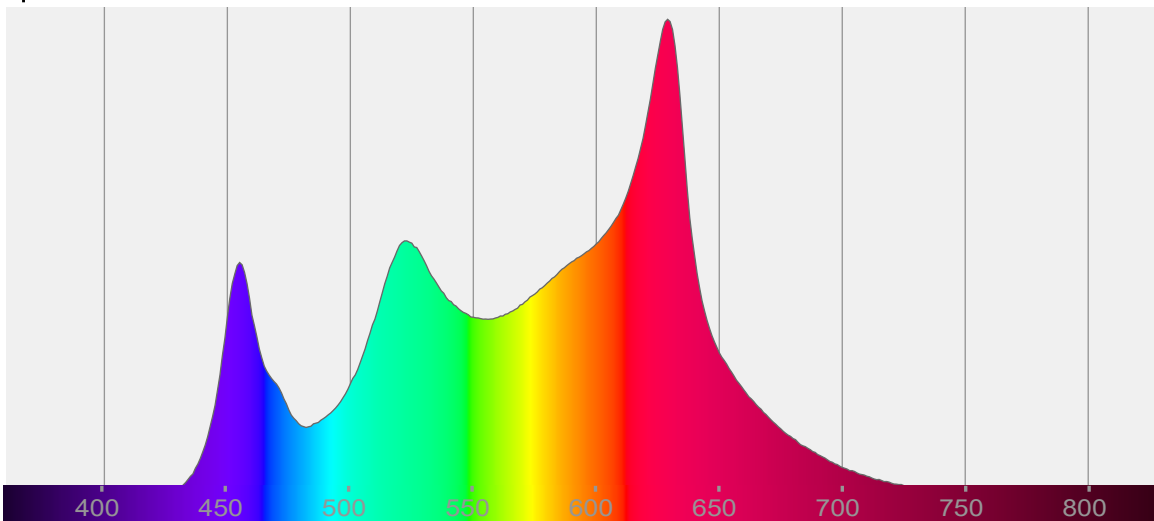
TM-30-18 Rg: 101.9

1<sup>st</sup> Dominant Wavelength: 629 nm

2<sup>nd</sup> Dominant Wavelength: 523 nm



### Spectral Distribution



#### Tested Color

**3335 K**

**CIE 1931 Coordinates:**

X: 0.416    Y: 0.398

#### Color Temperature

3335 K

#### Light Quality

CRI: 94.2

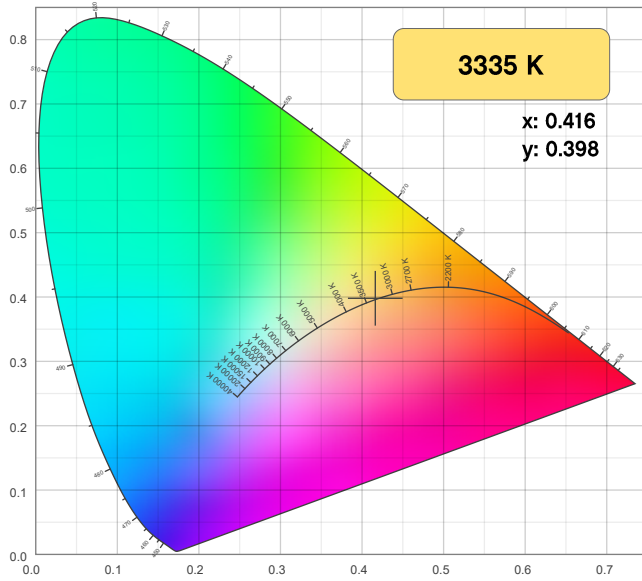
#### Notes:

# Chromaticity Report

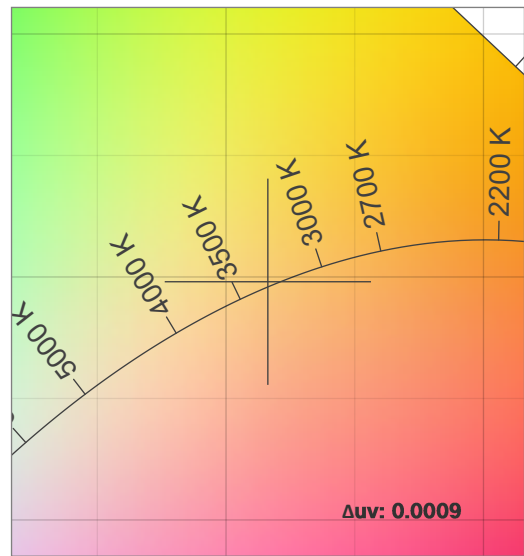
Well STX 180: Standard Optics – 3200K – 3 HR

## Chromaticity

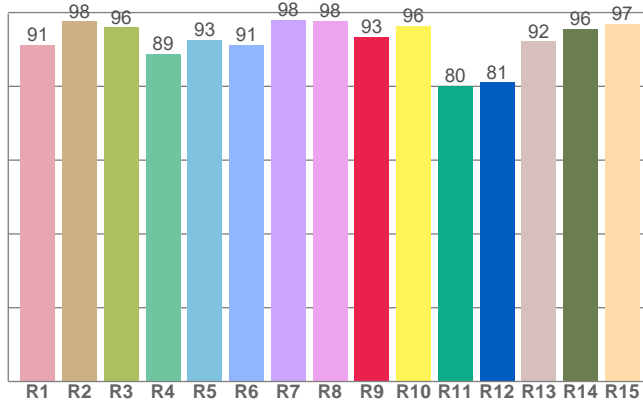
CIE 1931



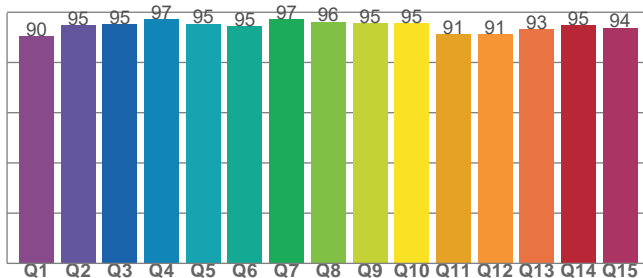
CIE 1931 - Zoom



CRI: 94.2 (R1-R8)



CQS: 94.0



Color Parameters

| Color Temperature | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 |
|-------------------|---------------------------|---------------------------|
| CCT               | x                         | y                         |
| 3335 K            | 0.416                     | 0.398                     |

| Color Deviation from Black Body Curve | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---------------------------------------|---------------------------|---------------------------|
| Δuv                                   | y                         | u                         |
| 0.0009                                | 0.398                     | 0.240                     |

| Color Rendering Index | Red Component | Color Quality Scale |
|-----------------------|---------------|---------------------|
| CRI                   | CRI - R9      | CQS                 |
| 94.2                  | 93.4          | 94.0                |

| Television Lighting Consistency Index | Color Fidelity | Color Gamut |
|---------------------------------------|----------------|-------------|
| TLCI                                  | TM-30-18 - Rf  | TM-30-18 Rg |
| 88                                    | 90.1           | 101.9       |

# Chromaticity Report

Well STX 180: Standard Optics – 3200K – 3 HR

## TM-30-18 Details

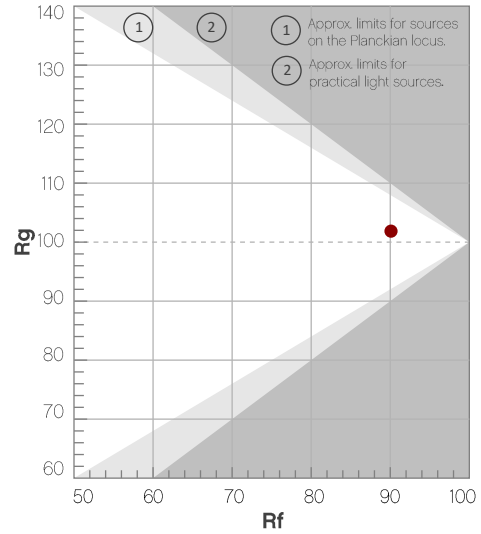
**Rf 90.1**

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

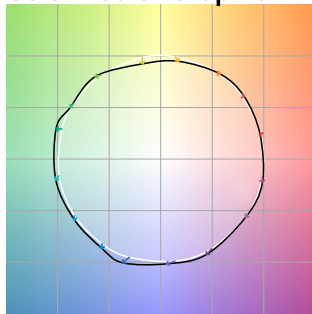
**Rg 101.9**

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

| Hue Bin | R <sub>f</sub> | Chroma Shift | Hue Shift |
|---------|----------------|--------------|-----------|
| 1       | 93             | -1%          | 0%        |
| 2       | 94             | 1%           | -2%       |
| 3       | 91             | 1%           | -3%       |
| 4       | 90             | -4%          | -4%       |
| 5       | 90             | -6%          | 1%        |
| 6       | 91             | 2%           | 5%        |
| 7       | 88             | 1%           | 5%        |
| 8       | 89             | 6%           | 1%        |
| 9       | 91             | 4%           | 3%        |
| 10      | 92             | 2%           | 4%        |
| 11      | 91             | 4%           | 3%        |
| 12      | 85             | 6%           | -5%       |
| 13      | 87             | 1%           | -9%       |
| 14      | 88             | 2%           | -8%       |
| 15      | 87             | 0%           | -3%       |
| 16      | 87             | 1%           | -5%       |



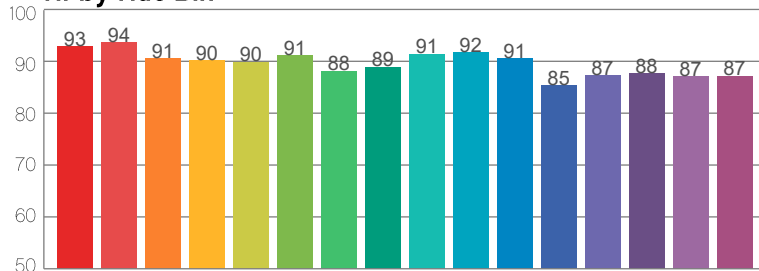
Color Vector Graphic



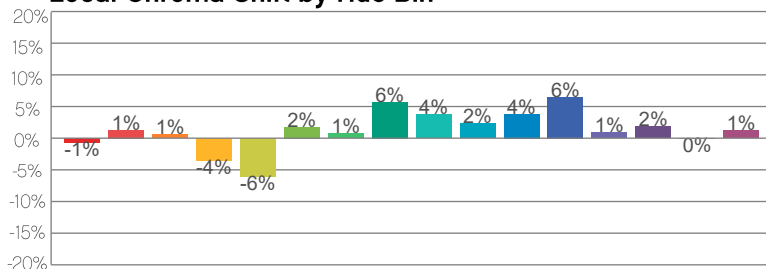
Color Distortion Graphic



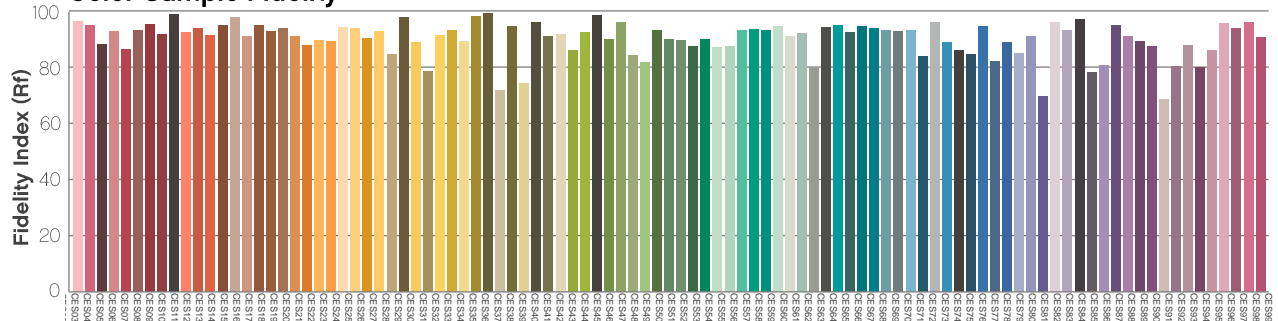
R<sub>f</sub> by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



# Chromaticity Report

Well STX 180: Standard Optics – 4000K – 3 HR

## Report Summary

### Measurements

Total Lumens: 863 lm

Peak Intensity: 225 cd

Fixture Efficacy: ffl lm/W

Correlated Color Temperature: 4154

$\Delta uv$ : 0.0012

CRI: 95.8      CRI R9 Value: 92.7

CQS: 94.9

TLCI: 89

TM-30-18 Rf: 89.9

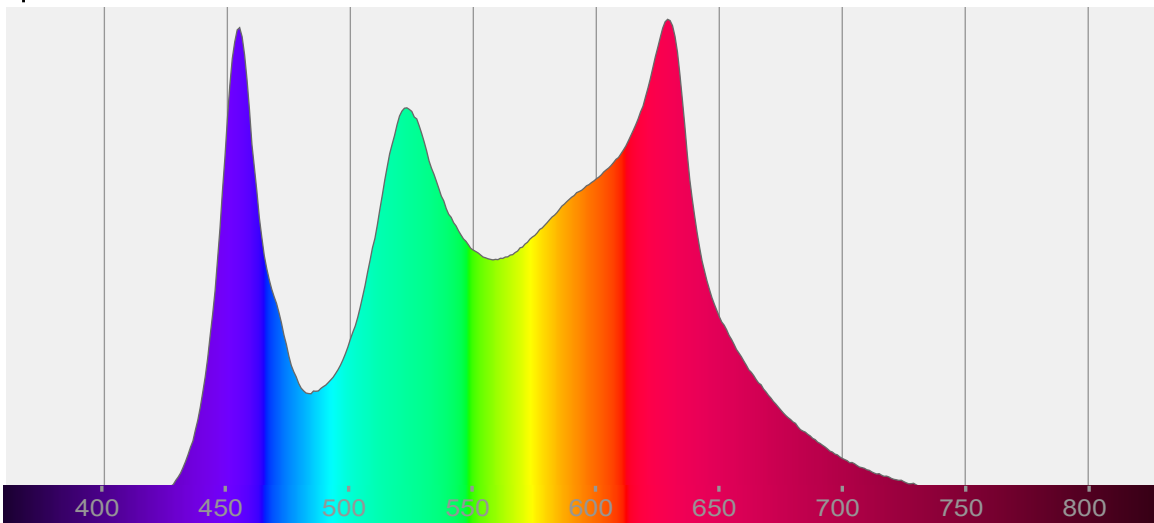
TM-30-18 Rg: 101.8

1<sup>st</sup> Dominant Wavelength: 629 nm

2<sup>nd</sup> Dominant Wavelength: 455 nm



### Spectral Distribution



#### Tested Color

**4154 K**

**CIE 1931 Coordinates:**

X: 0.375    Y: 0.376

#### Color Temperature

4154 K

#### Light Quality

CRI: 95.8

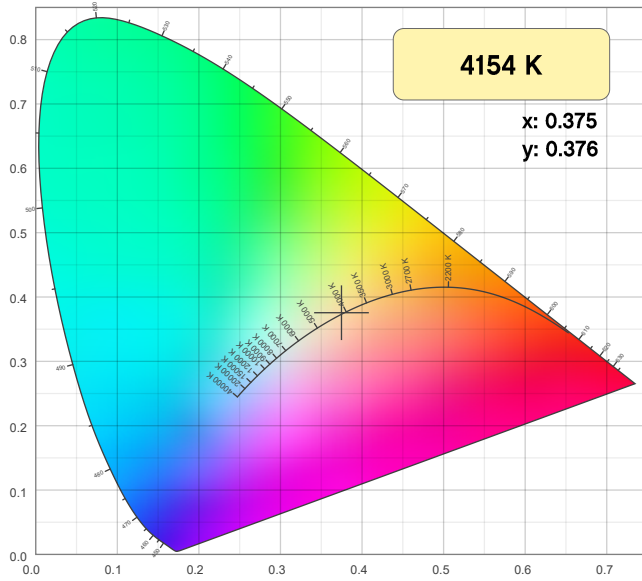
#### Notes:

# Chromaticity Report

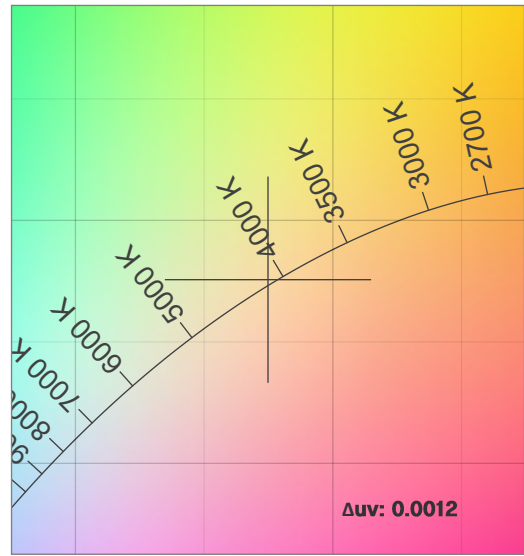
Well STX 180: Standard Optics – 4000K – 3 HR

## Chromaticity

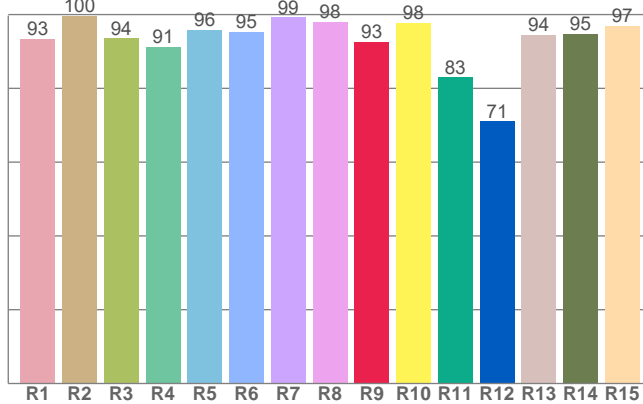
CIE 1931



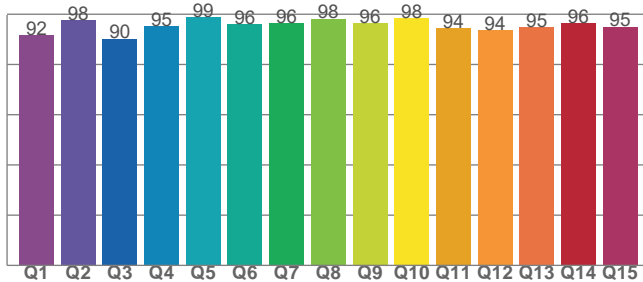
CIE 1931 - Zoom



CRI: 95.8 (R1-R8)



CQS: 94.9



Color Parameters

| Color Temperature | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 |
|-------------------|---------------------------|---------------------------|
| CCT               | x                         | y                         |
| 4154 K            | 0.375                     | 0.376                     |

| Color Deviation from Black Body Curve | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---------------------------------------|---------------------------|---------------------------|
| $\Delta_{uv}$                         | y                         | u                         |
| 0.0012                                | 0.376                     | 0.222                     |

| Color Rendering Index | Red Component | Color Quality Scale |
|-----------------------|---------------|---------------------|
| CRI                   | CRI - R9      | CQS                 |
| 95.8                  | 92.7          | 94.9                |

| Television Lighting Consistency Index | Color Fidelity | Color Gamut |
|---------------------------------------|----------------|-------------|
| TLCI                                  | TM-30-18 - Rf  | TM-30-18 Rg |
| 89                                    | 89.9           | 101.8       |

# Chromaticity Report

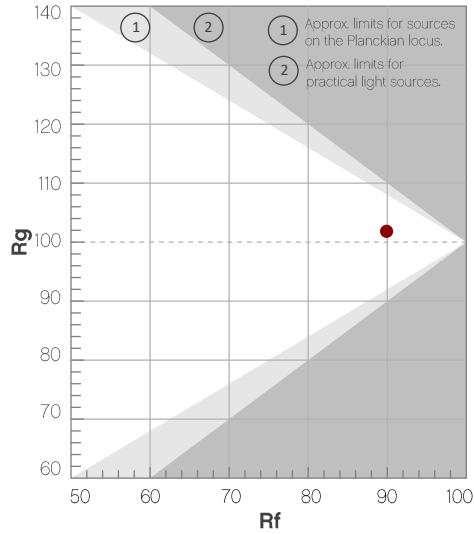
Well STX 180: Standard Optics – 4000K – 3 HR

## TM-30-18 Details

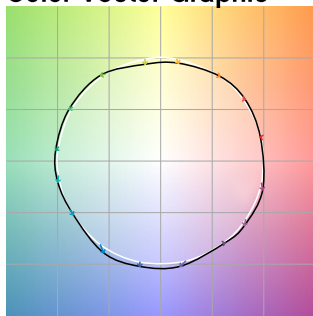
**Rf 89.9**  
Fidelity Index (R<sub>f</sub>)

**Rg 101.8**  
Gamut Index (R<sub>g</sub>)

| Hue Bin | R <sub>f</sub> | Chroma Shift | Hue Shift |
|---------|----------------|--------------|-----------|
| 1       | 93             | -1%          | 0%        |
| 2       | 94             | 2%           | -1%       |
| 3       | 92             | 0%           | -1%       |
| 4       | 91             | -3%          | -3%       |
| 5       | 89             | -5%          | 1%        |
| 6       | 91             | 2%           | 4%        |
| 7       | 90             | 2%           | 3%        |
| 8       | 89             | 2%           | 3%        |
| 9       | 91             | 2%           | 6%        |
| 10      | 90             | 0%           | 6%        |
| 11      | 86             | 5%           | 7%        |
| 12      | 89             | 4%           | 1%        |
| 13      | 89             | 4%           | -6%       |
| 14      | 92             | 1%           | 2%        |
| 15      | 86             | 2%           | -5%       |
| 16      | 86             | 3%           | -6%       |



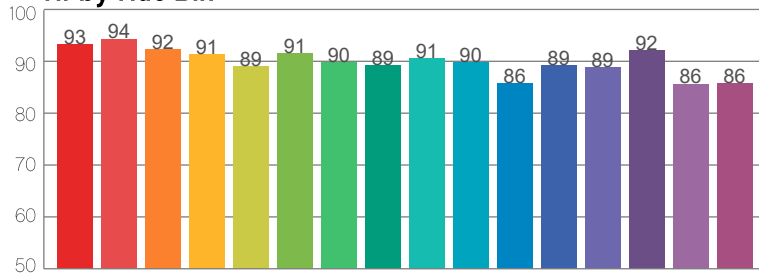
Color Vector Graphic



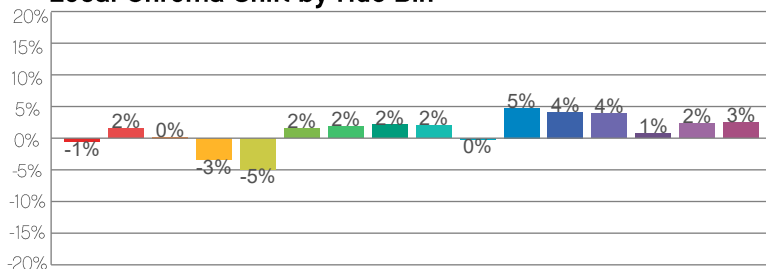
Color Distortion Graphic



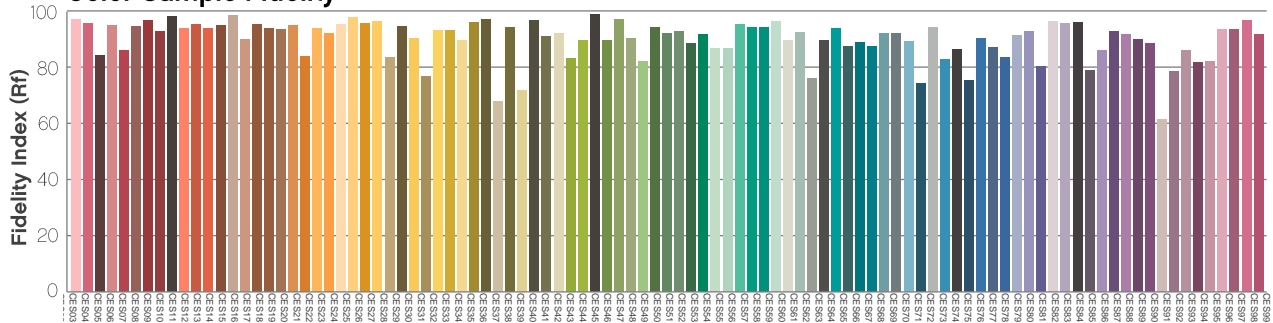
R<sub>f</sub> by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



# Chromaticity Report

Well STX 180: Standard Optics – 5600K – 3 HR

## Report Summary

### Measurements

Total Lumens: 942 lm

Peak Intensity: 245 cd

Fixture Efficacy: ffl lm/W

Correlated Color Temperature: 5640 K

$\Delta uv$ : -0.0029

CRI: 94.4      CRI R9 Value: 96.2

CQS: 93.8

TLCI: 91

TM-30-18 Rf: 89.6

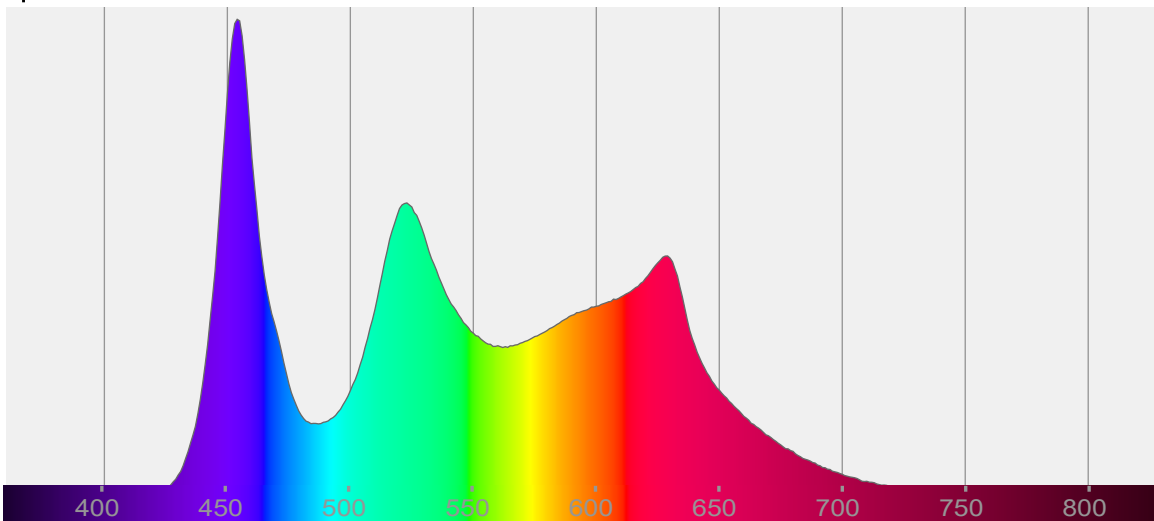
TM-30-18 Rg: 104.0

1<sup>st</sup> Dominant Wavelength: 454 nm

2<sup>nd</sup> Dominant Wavelength: 523 nm



### Spectral Distribution



#### Tested Color

**5640 K**

CIE 1931 Coordinates:

X: 0.329    Y: 0.339

#### Color Temperature

5640 K

#### Light Quality

CRI: 94.4

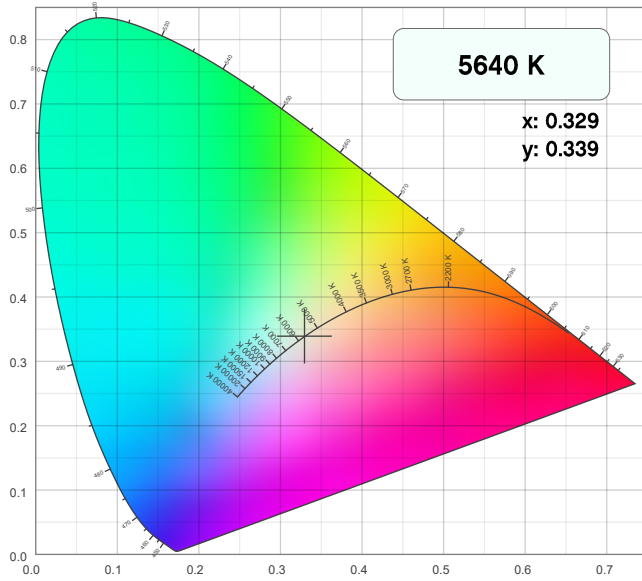
#### Notes:

# Chromaticity Report

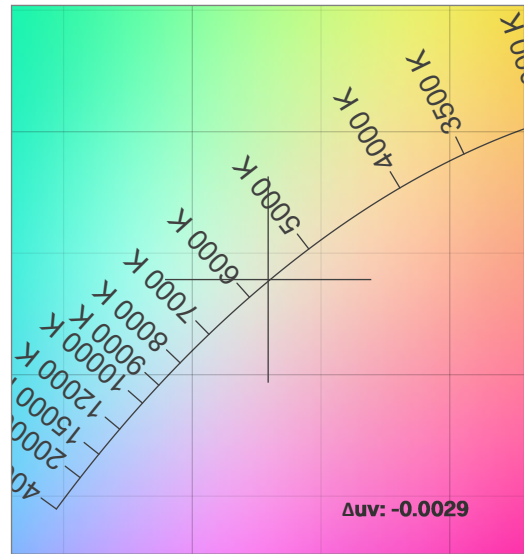
Well STX 180: Standard Optics – 5600K – 3 HR

## Chromaticity

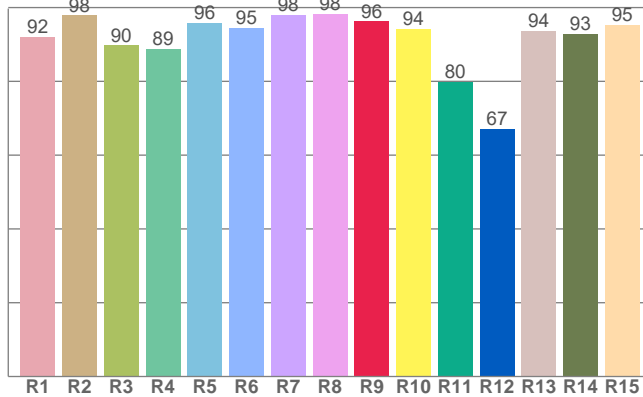
CIE 1931



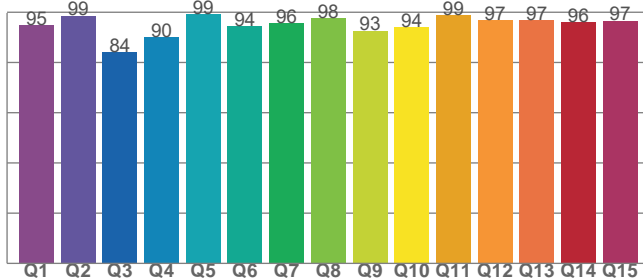
CIE 1931 - Zoom



CRI: 94.4 (R1-R8)



CQS: 93.8



Color Parameters

| Color Temperature | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 |
|-------------------|---------------------------|---------------------------|
| CCT               | x                         | y                         |
| 5640 K            | 0.329                     | 0.339                     |

| Color Deviation from Black Body Curve | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---------------------------------------|---------------------------|---------------------------|
| Δuv                                   | y                         | u                         |
| -0.0029                               | 0.339                     | 0.206                     |

| Color Rendering Index | Red Component | Color Quality Scale |
|-----------------------|---------------|---------------------|
| CRI                   | CRI - R9      | CQS                 |
| 94.4                  | 96.2          | 93.8                |

| Television Lighting Consistency Index | Color Fidelity | Color Gamut |
|---------------------------------------|----------------|-------------|
| TLCI                                  | TM-30-18 - Rf  | TM-30-18 Rg |
| 91                                    | 89.6           | 104.0       |



# Chromaticity Report

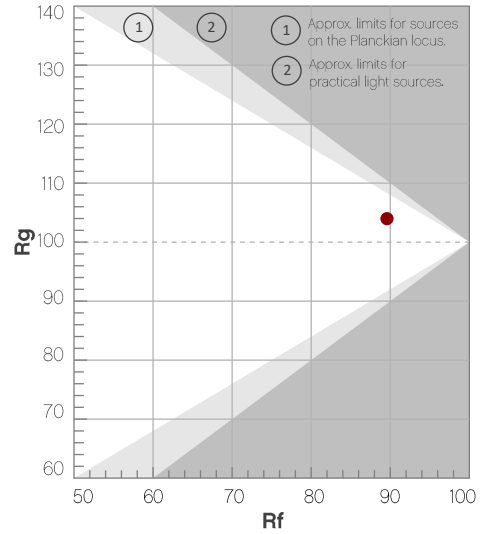
Well STX 180: Standard Optics – 5600K – 3 HR

## TM-30-18 Details

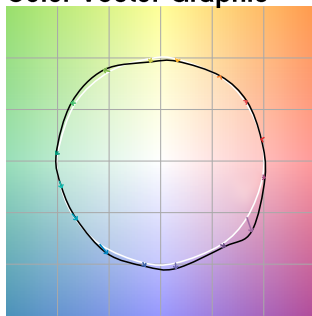
**Rf 89.6**  
Fidelity Index (R<sub>f</sub>)

**Rg 104.0**  
Gamut Index (R<sub>g</sub>)

| Hue Bin | R <sub>f</sub> | Chroma Shift | Hue Shift |
|---------|----------------|--------------|-----------|
| 1       | 93             | 0%           | 0%        |
| 2       | 95             | 2%           | 0%        |
| 3       | 94             | 1%           | 0%        |
| 4       | 93             | -2%          | 0%        |
| 5       | 87             | -3%          | 2%        |
| 6       | 90             | 4%           | 4%        |
| 7       | 90             | 3%           | 2%        |
| 8       | 92             | 1%           | 3%        |
| 9       | 90             | -1%          | 6%        |
| 10      | 87             | -1%          | 7%        |
| 11      | 80             | 3%           | 11%       |
| 12      | 92             | 3%           | 3%        |
| 13      | 91             | 5%           | -1%       |
| 14      | 89             | 4%           | 2%        |
| 15      | 80             | 11%          | -9%       |
| 16      | 93             | 2%           | 0%        |



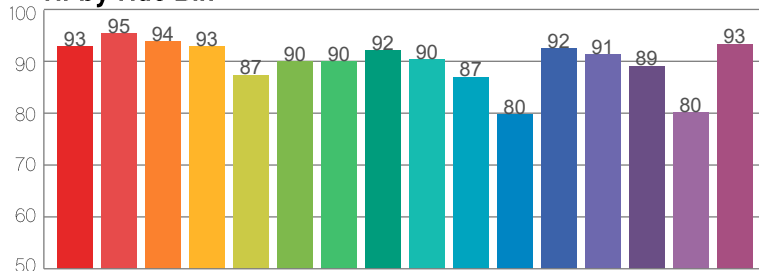
Color Vector Graphic



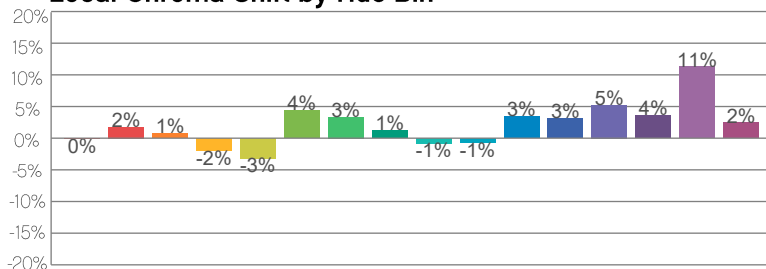
Color Distortion Graphic



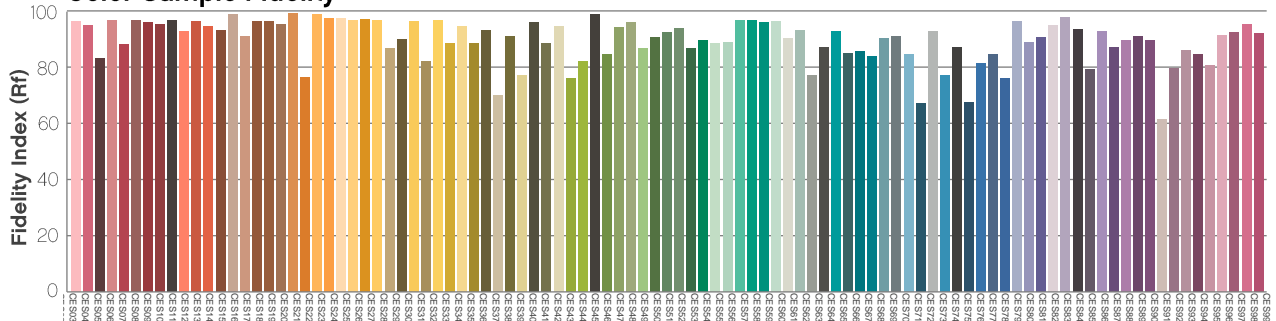
R<sub>f</sub> by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



# Chromaticity Report

Well STX 180: Standard Optics – 6500K – 3 HR

## Report Summary

### Measurements

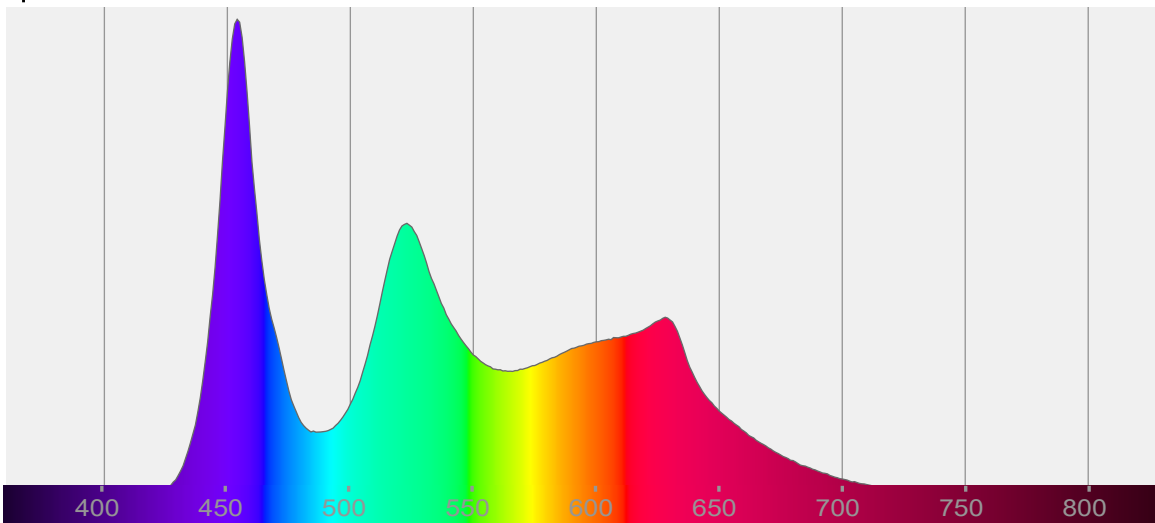
Total Lumens: 996 lm  
Peak Intensity: 259 cd  
Fixture Efficacy: ffl lm/W

Correlated Color Temperature: 6673  
 $\Delta uv$ : -0.0003

CRI: 94.6      CRI R9 Value: 96.4  
CQS: 93.1  
TLCI: 92  
TM-30-18 Rf: 88.7  
TM-30-18 Rg: 103.4  
1<sup>st</sup> Dominant Wavelength: 454 nm  
2<sup>nd</sup> Dominant Wavelength: 523 nm



### Spectral Distribution



#### Tested Color

**6673 K**

CIE 1931 Coordinates:  
X: 0.310    Y: 0.326

#### Color Temperature

6673 K

#### Light Quality

CRI: 94.6

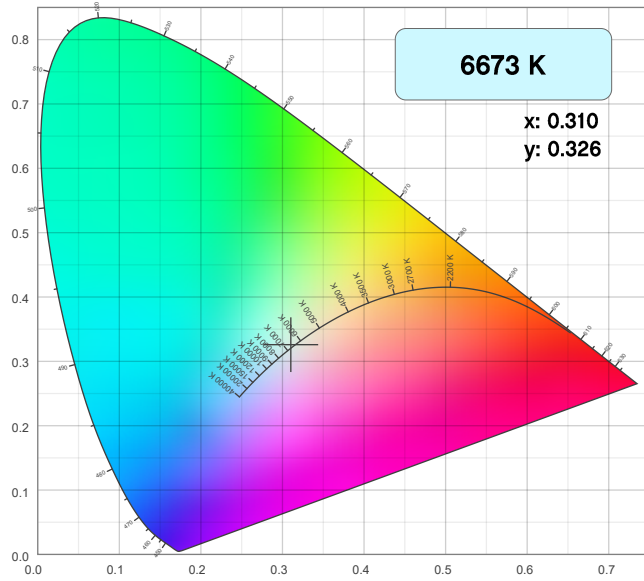
#### Notes:

# Chromaticity Report

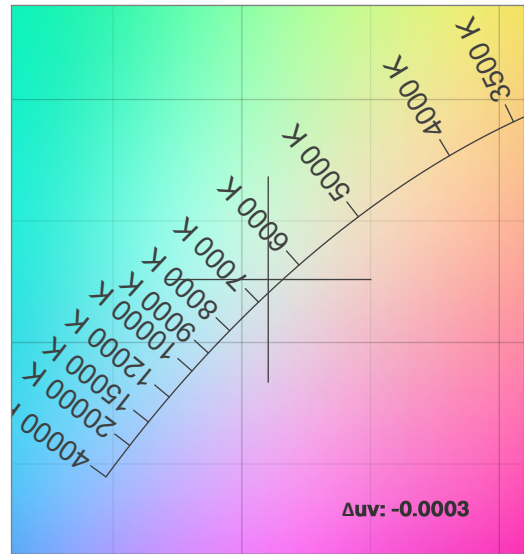
Well STX 180: Standard Optics – 6500K – 3 HR

## Chromaticity

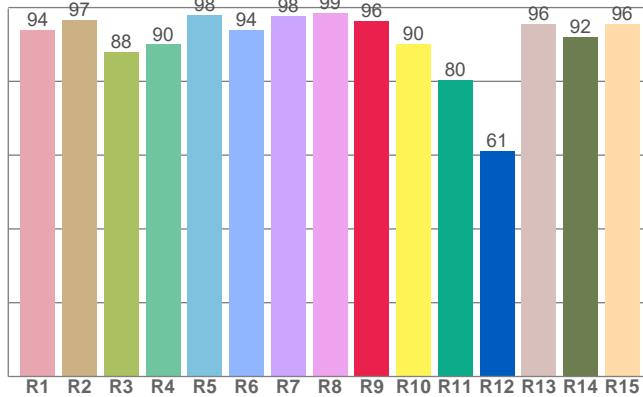
CIE 1931



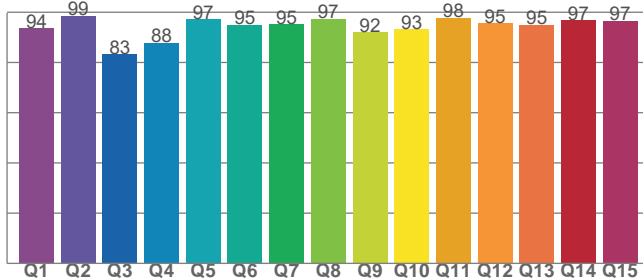
CIE 1931 - Zoom



CRI: 94.6 (R1-R8)



CQS: 93.1



Color Parameters

| Color Temperature | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 |
|-------------------|---------------------------|---------------------------|
| CCT               | x                         | y                         |
| 6673 K            | 0.310                     | 0.326                     |

| Color Deviation from Black Body Curve | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---------------------------------------|---------------------------|---------------------------|
| Δuv                                   | y                         | u                         |
| -0.0003                               | 0.326                     | 0.197                     |

| Color Rendering Index | Red Component | Color Quality Scale |
|-----------------------|---------------|---------------------|
| CRI                   | CRI - R9      | CQS                 |
| 94.6                  | 96.4          | 93.1                |

| Television Lighting Consistency Index | Color Fidelity | Color Gamut |
|---------------------------------------|----------------|-------------|
| TLCI                                  | TM-30-18 - Rf  | TM-30-18 Rg |
| 92                                    | 88.7           | 103.4       |

# Chromaticity Report

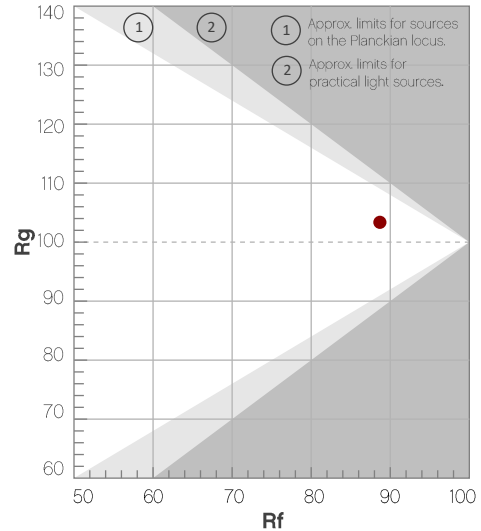
Well STX 180: Standard Optics – 6500K – 3 HR

## TM-30-18 Details

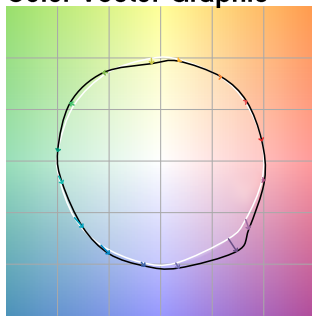
**Rf 88.7**  
Fidelity Index (R<sub>f</sub>)

**Rg 103.4**  
Gamut Index (R<sub>g</sub>)

| Hue Bin | R <sub>f</sub> | Chroma Shift | Hue Shift |
|---------|----------------|--------------|-----------|
| 1       | 93             | 0%           | 0%        |
| 2       | 95             | 2%           | 0%        |
| 3       | 94             | 1%           | -1%       |
| 4       | 93             | -2%          | 1%        |
| 5       | 85             | -5%          | 1%        |
| 6       | 89             | 2%           | 4%        |
| 7       | 92             | 4%           | 0%        |
| 8       | 92             | 0%           | 3%        |
| 9       | 89             | -2%          | 7%        |
| 10      | 81             | -2%          | 12%       |
| 11      | 78             | 3%           | 11%       |
| 12      | 92             | 3%           | 4%        |
| 13      | 91             | 5%           | 2%        |
| 14      | 79             | 15%          | 0%        |
| 15      | 83             | 8%           | -6%       |
| 16      | 93             | 2%           | 0%        |



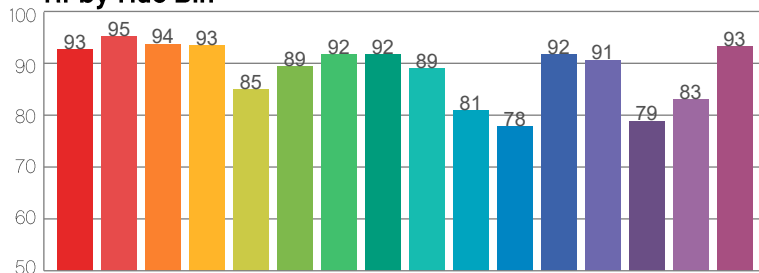
Color Vector Graphic



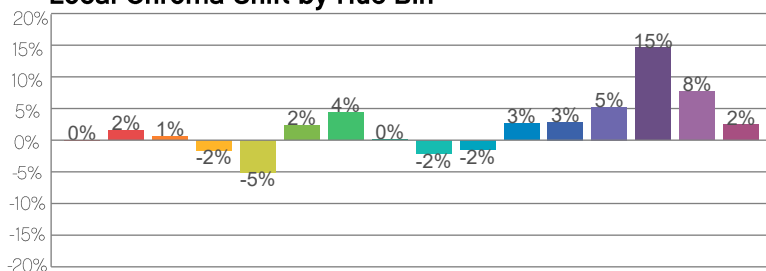
Color Distortion Graphic



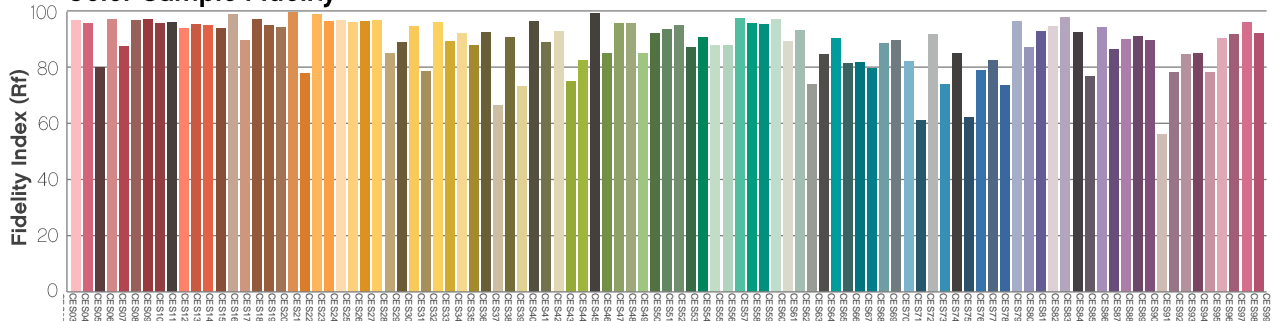
R<sub>f</sub> by Hue Bin



Local Chroma Shift by Hue Bin



Color Sample Fidelity



## Contact Us

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