# Pixel Wash 40IP

Photometric &

Chromaticity Test Reports

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# Testing Process

**Total Lumen Measurements**

Lumens are measured using a Viso Systems Lab Spion. As a goniophotometer, the Viso calculates the field lumens of the fixture by taking multiple measurements across the light beam.

Many lumens figures provided for entertainment lighting fixtures are only $2\pi$ sphere values, some even emphasize the LED engine lumens. All Elation product photometric data is the actual light output from the fixture lens, never a theoretical value based on calculation or using the source lumens as the fixtures output. We advise to always compare total fixture lumens acquired with identical measurement systems when comparing lighting fixtures.

**Test Lab Equipment and Process**

Elation operates an optical testing laboratory at its Los Angeles, CA headquarters to provide accurate photometric data for its lighting products. The testing lab is both light and climate- controlled and contains a variety of precise lighting measurement systems. Fixtures are analyzed with the sophisticated Viso Systems Lab Spion equipment, which measures all light and color parameters by panning the light beam at a precise speed and from different angles through a calibrated, laser aligned light and color sensor. Test data is collected and summarized by the Viso Light Inspector software. This type of measurement system is referred to as a Goniophotometer.

The Viso software calculates all relevant types of measurements, from beam angles, candela to center light intensity at a variety of distances to the latest color quality measurements like TM30 or CQS as well as accurate color temperature. This wealth of data is then processed by an Elation specific template which is included in the photometric test report for various fixture conditions such as zoom angles and color correction filters.

The Viso software also creates IES (Illuminating Engineering Society) files for each test report. IES is an industry standard file format created for the easy electronic transfer of photometric test data, which is widely used by lighting manufacturers for photometric data distribution.

Additionally, fixtures are periodically rechecked for accuracy using various hand-held light meters including one or more of the devices listed below. This is done to ensure the test data contained in this report is as accurate as possible.

Asenstek Lighting Passport | Konica Minolta T-10 | Sekonic C800U

## Measurements

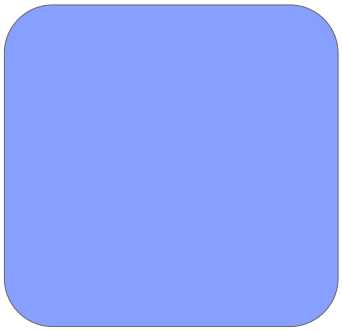
Total Lumen Output: 436 lm

Peak Intensity: 765 cd

Efficacy: 15 Lumen/Watt

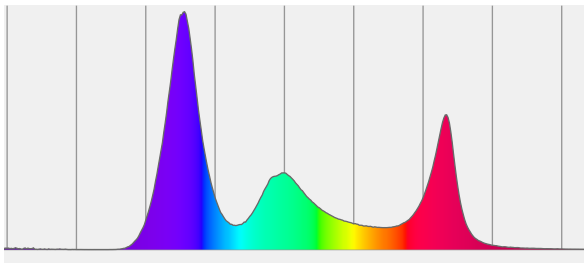
Power: 30.1 W

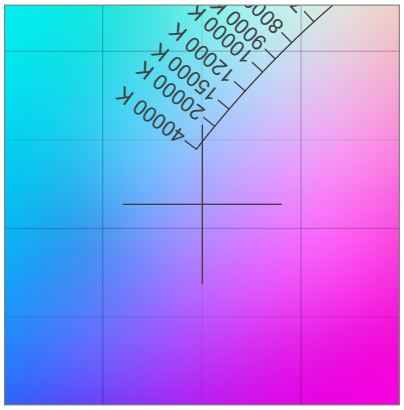
Voltage: 23.5 V, Current: 1.28 A



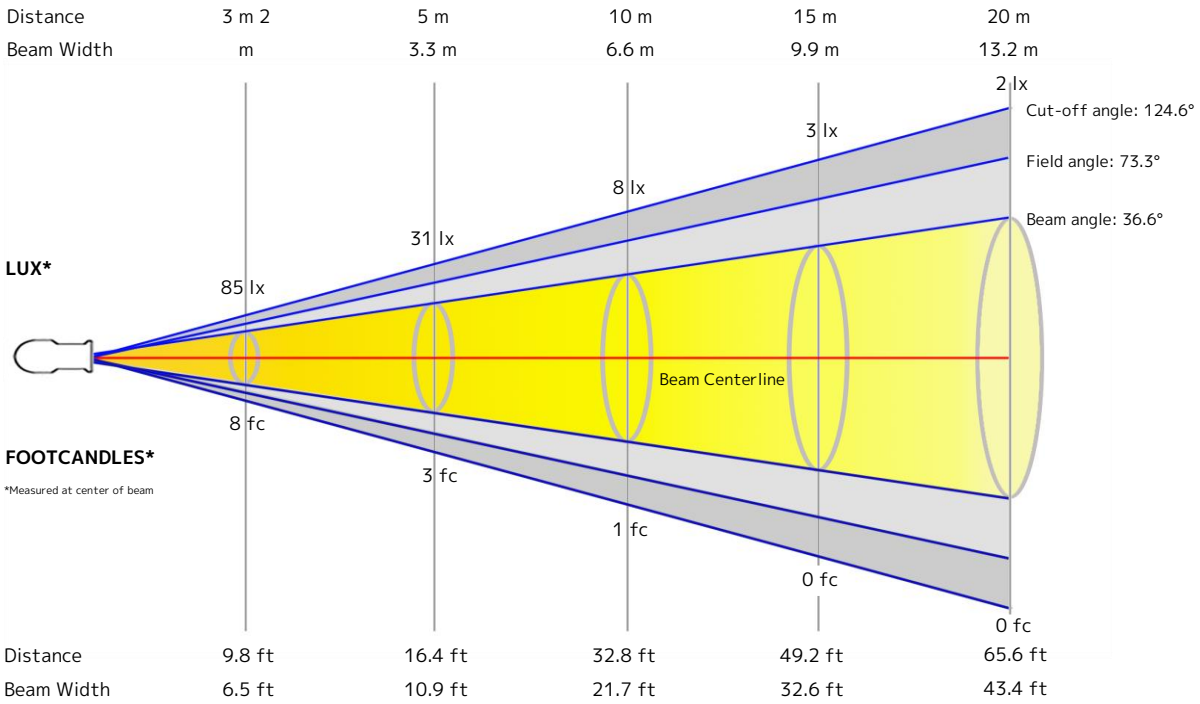
## Spectral Power Distribution

Dominant Wavelength 457 nm






| Dominant Wavelength | Color Coordinate CIE 1931 | Color Coordinate CIE1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---|---|---|---|---|
| nm | x | y | u | v |
| 457 | 0.250 | 0.214 | 0.198 | 0.253 |




## Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 765 | 191 | 85 | 48 | 31 | 21 | 16 | 12 | 9 | 8 | 6 | 5 | 5 | 4 | 3 | 3 | 3 | 2 | 2 | 2 |
| FC | 71.1 | 17.8 | 7.9 | 4.4 | 2.8 | 2 | 1.5 | 1.1 | 0.9 | 0.7 | 0.6 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 |

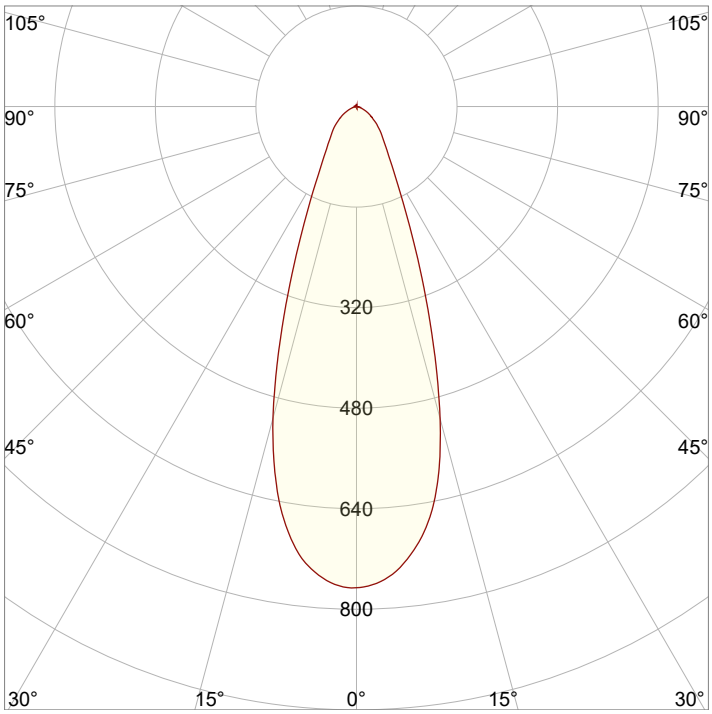


**Measurement Date: 6/5/2023**

# Pixel Wash 40IP (Full Output)

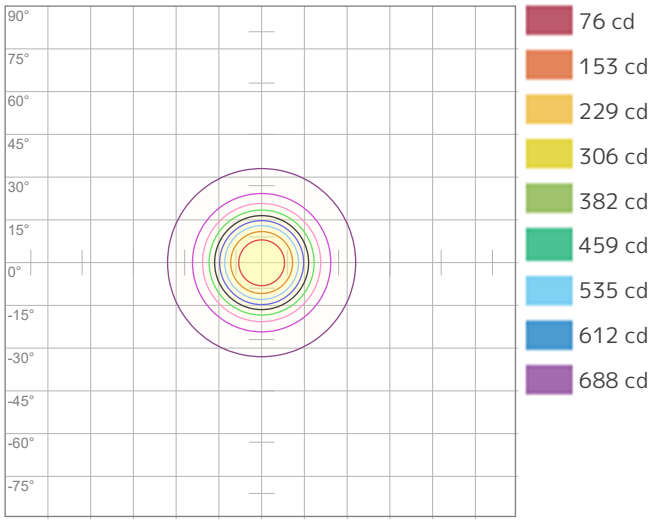
Prepared For ELATION PROFESSIONAL

## Angular Distribution




| Beam Angle - 50% |
|---|
| 36.6° |
| Field Angle - 10% |
| 73.3° |
| Cutoff Angle - 2.5% |
| 124.6° |

## ISO Diagrams

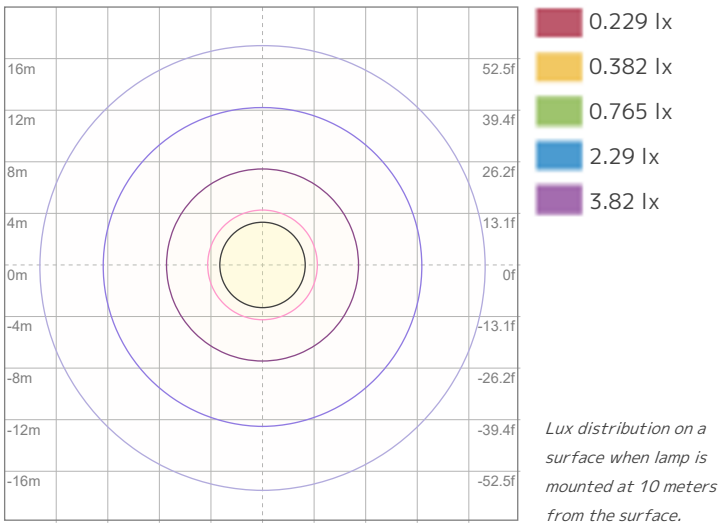



**ISO Candela Diagram**

Conditions:

Number of c-planes: 2

Candela at center: 765 cd




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

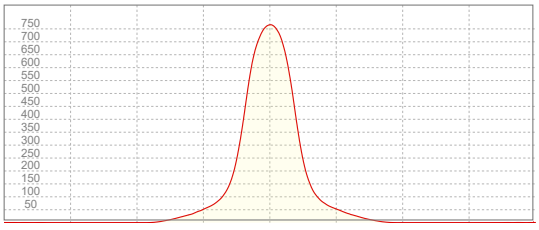
**ISO LUX Diagram**

Conditions:

Number of c-planes: 2

LUX at center: 7.65 lx

## Linear Distribution




**Peak Candela**

**766 cd**

**Calculate Center Beam Intensities**

lux = 766 / distance(m)$^2$

fc = 766 / distance(ft)$^2$



**Measurement Date: 6/5/2023**

## Measurements

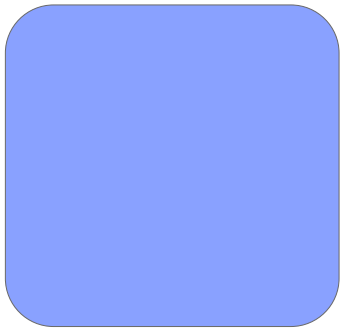
Total Lumen Output: 355 lm

Peak Intensity: 330 cd

Efficacy: 13 Lumen/Watt

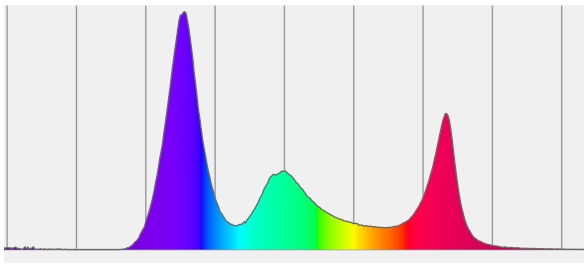
Power: 27.0 W

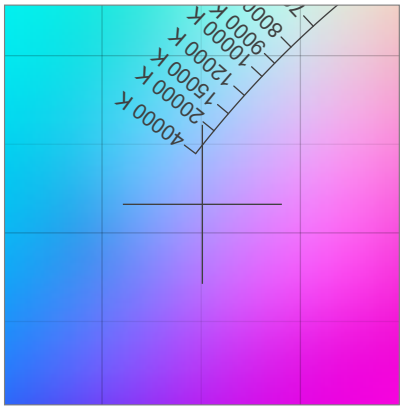
Voltage: 23.5 V, Current: 1.15 A



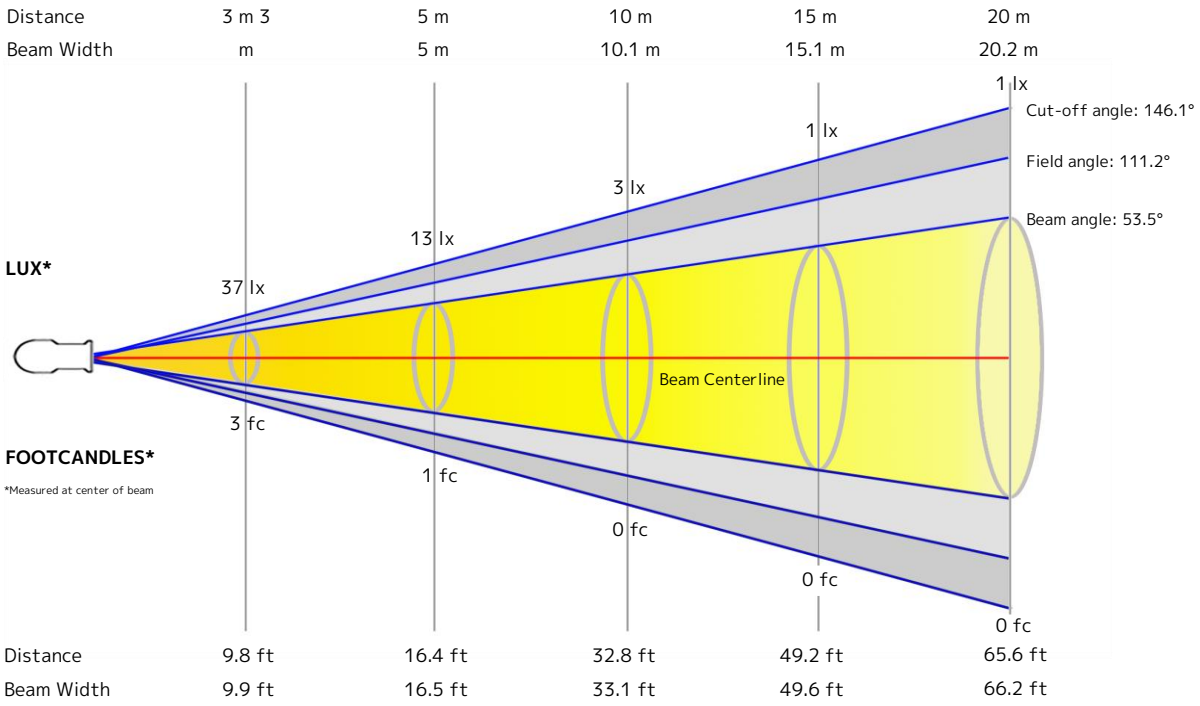
## Spectral Power Distribution

Dominant Wavelength 458 nm






| Dominant Wavelength | Color Coordinate CIE 1931 | Color Coordinate CIE1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---|---|---|---|---|
| nm | x | y | u | v |
| 458 | 0.251 | 0.216 | 0.197 | 0.255 |




## Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 330 | 82 | 37 | 21 | 13 | 9 | 7 | 5 | 4 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| FC | 30.6 | 7.7 | 3.4 | 1.9 | 1.2 | 0.9 | 0.6 | 0.5 | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |

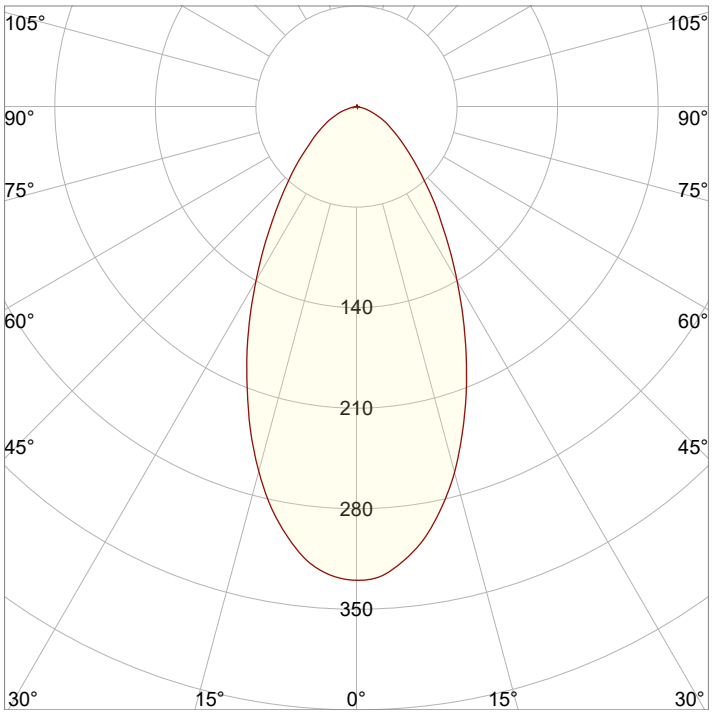


**Measurement Date: 6/6/2023**

# Pixel Wash 40IP (Frost, Full Output)

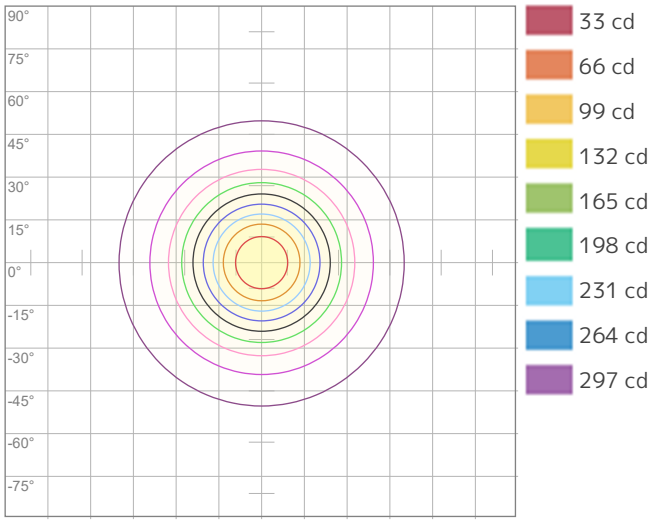
Prepared For ELATION PROFESSIONAL

## Angular Distribution




| Beam Angle - 50% |
|---|
| 53.5° |
| Field Angle - 10% |
| 111.2° |
| Cutoff Angle - 2.5% |
| 146.1° |

## ISO Diagrams

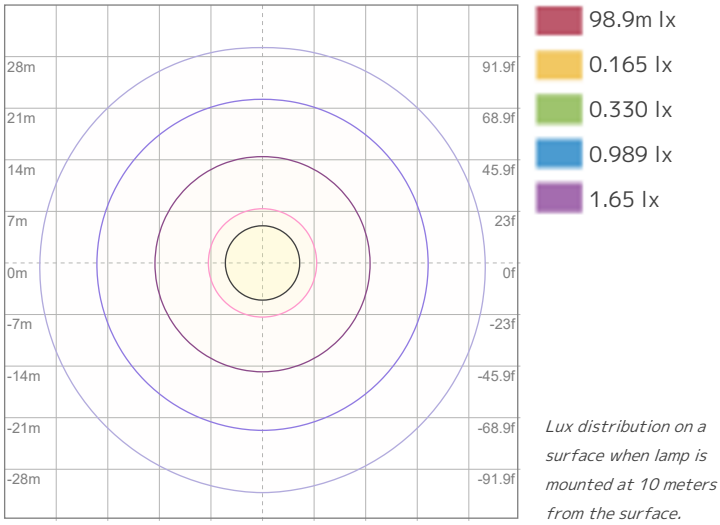



**ISO Candela Diagram**

Conditions:

Number of c-planes: 2

Candela at center: 330 cd




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

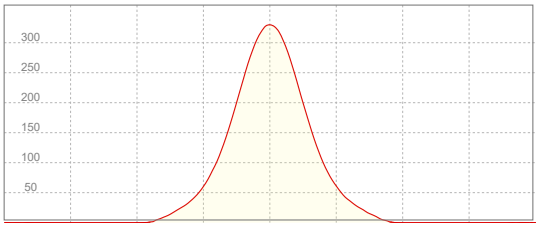
**ISO LUX Diagram**

Conditions:

Number of c-planes: 2

LUX at center: 3.30 lx

## Linear Distribution




**Peak Candela**

**330 cd**

**Calculate Center Beam Intensities**

lux = 330 / distance(m)$^2$

fc = 330 / distance(ft)$^2$



**Measurement Date: 6/6/2023**

# Pixel Wash 40IP (Red)

Prepared For ELATION PROFESSIONAL

## Measurements

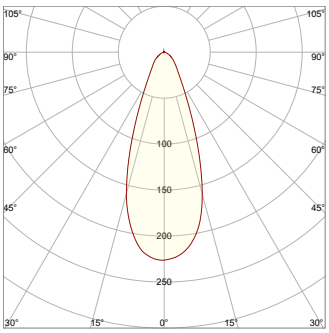
Total Lumen Output: 136 lm

Peak Intensity: 226 cd

Efficacy: 15 Lumen/Watt

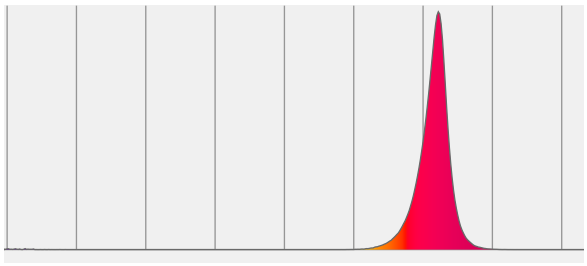
Power: 8.9 W

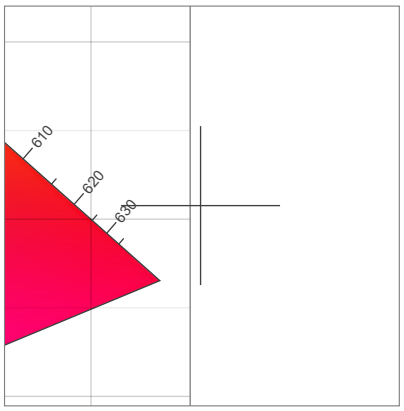
Voltage: 23.4 V, Current: 0.380 A



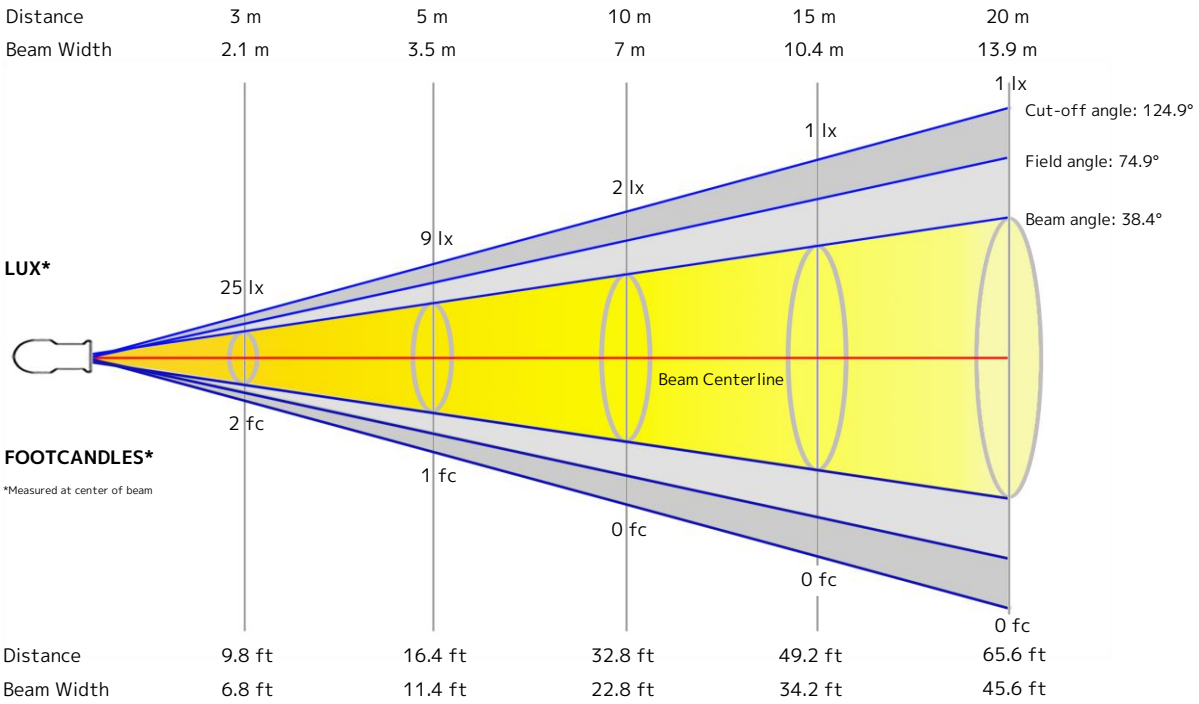

## Spectral Power Distribution

Dominant Wavelength 619 nm






| Dominant Wavelength | Color Coordinate CIE 1931 | Color Coordinate CIE1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---|---|---|---|---|
| nm | x | y | u | v |
| 619 | 0.755 | 0.308 | 0.583 | 0.356 |




## Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 226 | 56 | 25 | 14 | 9 | 6 | 5 | 4 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| FC | 21 | 5.2 | 2.3 | 1.3 | 0.8 | 0.6 | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |



**Measurement Date: 6/5/2023**

# Pixel Wash 40IP (Green)

Prepared For ELATION PROFESSIONAL

## Measurements

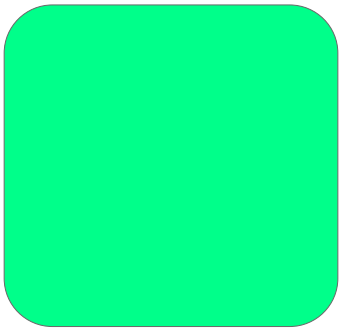
Total Lumen Output: 247 lm

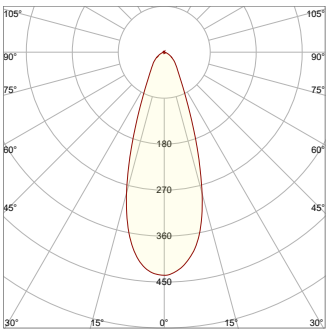
Peak Intensity: 436 cd

Efficacy: 25 Lumen/Watt

Power: 10.1 W

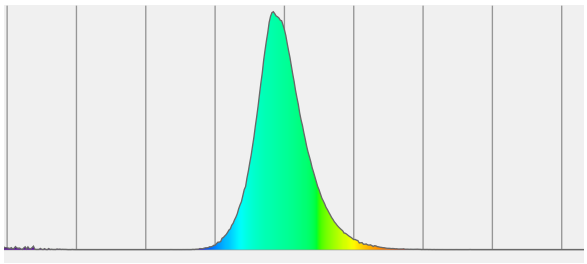
Voltage: 23.4 V, Current: 0.430 A

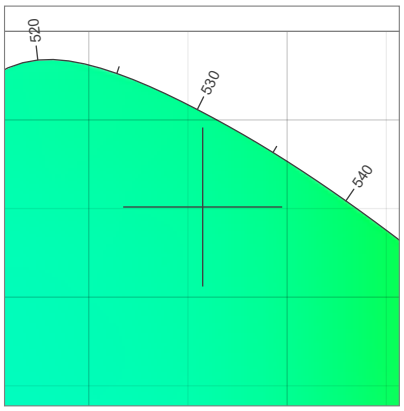




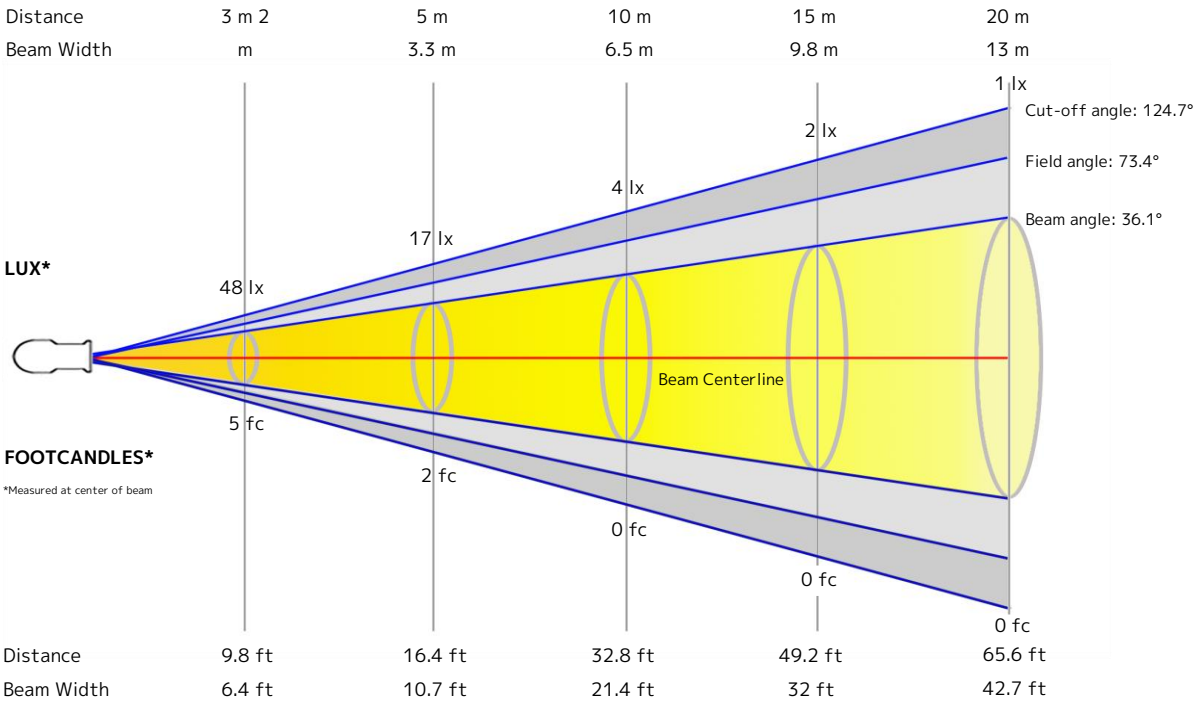

## Spectral Power Distribution

Dominant Wavelength 527 nm






| Dominant Wavelength | Color Coordinate CIE 1931 | Color Coordinate CIE1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---|---|---|---|---|
| nm | x | y | u | v |
| 527 | 0.157 | 0.751 | 0.054 | 0.385 |




## Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 436 | 109 | 48 | 27 | 17 | 12 | 9 | 7 | 5 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 |
| FC | 40.5 | 10.1 | 4.5 | 2.5 | 1.6 | 1.1 | 0.8 | 0.6 | 0.5 | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |



**Measurement Date: 6/5/2023**

## Measurements

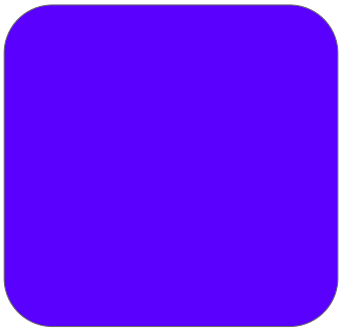
Total Lumen Output: 51.1 lm

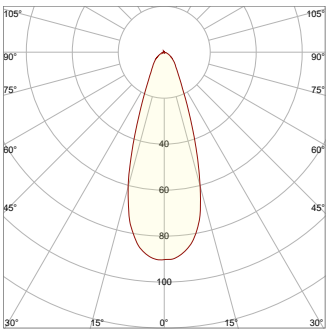
Peak Intensity: 90.2 cd

Efficacy: 5 Lumen/Watt

Power: 10.8 W

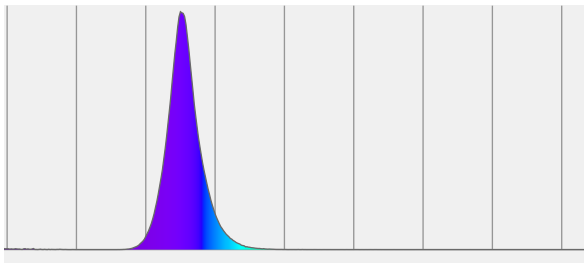
Voltage: 23.4 V, Current: 0.460 A

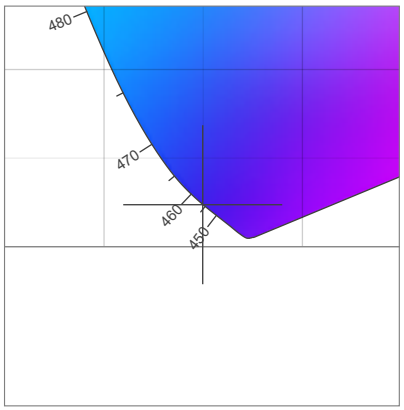




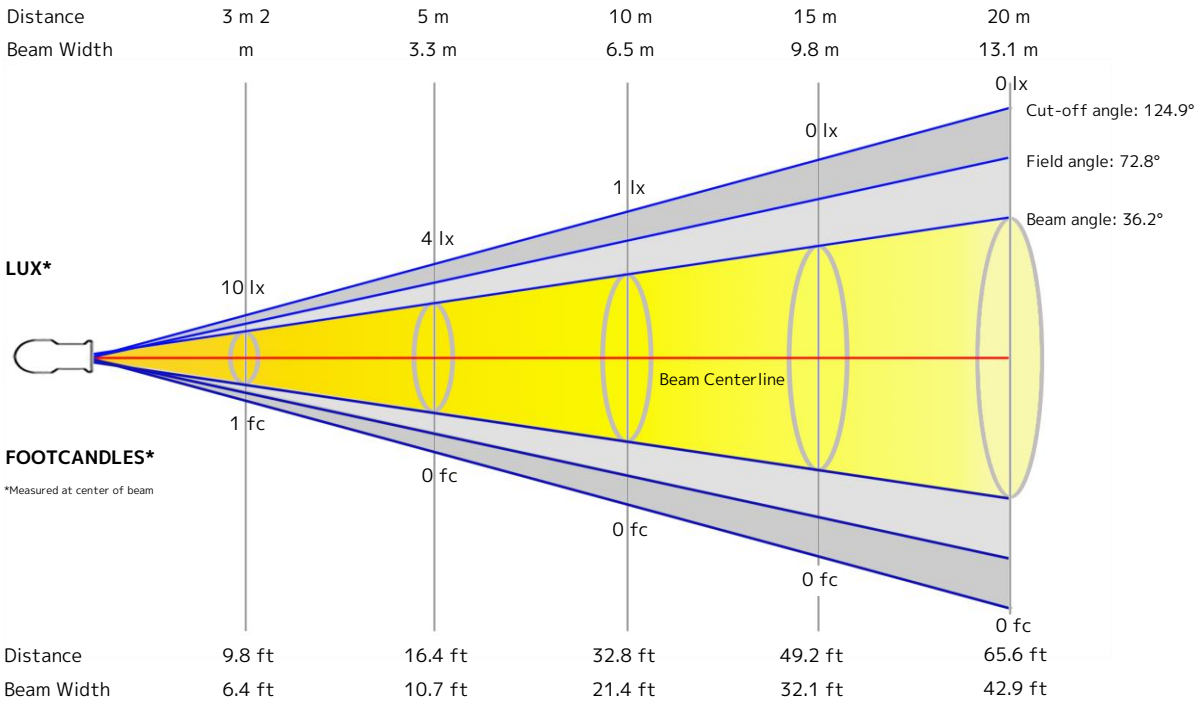

## Spectral Power Distribution

Dominant Wavelength 456 nm






| Dominant Wavelength | Color Coordinate CIE 1931 | Color Coordinate CIE1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---|---|---|---|---|
| nm | x | y | u | v |
| 456 | 0.150 | 0.024 | 0.201 | 0.048 |




## Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 90 | 23 | 10 | 6 | 4 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FC | 8.4 | 2.1 | 0.9 | 0.5 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



**Measurement Date: 6/5/2023**

## Measurements

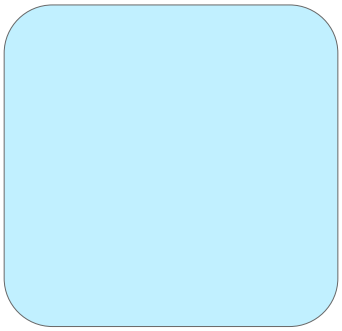
Total Lumen Output: 316 lm

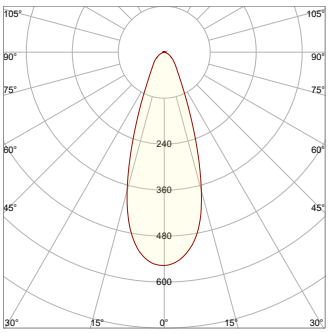
Peak Intensity: 556 cd

Efficacy: 29 Lumen/Watt

Power: 10.8 W

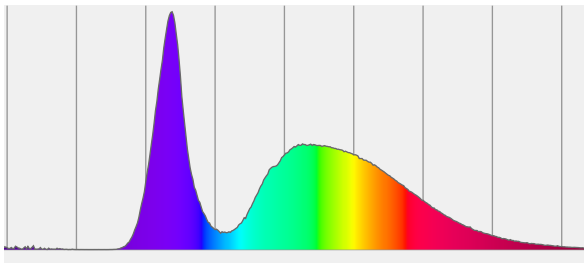
Voltage: 23.4 V, Current: 0.460 A

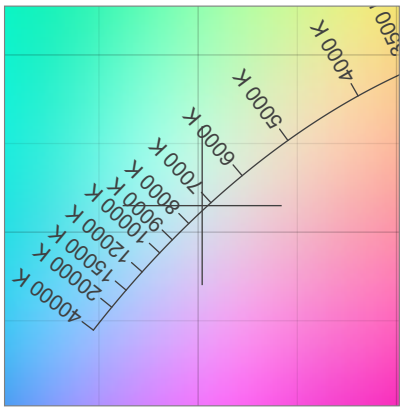




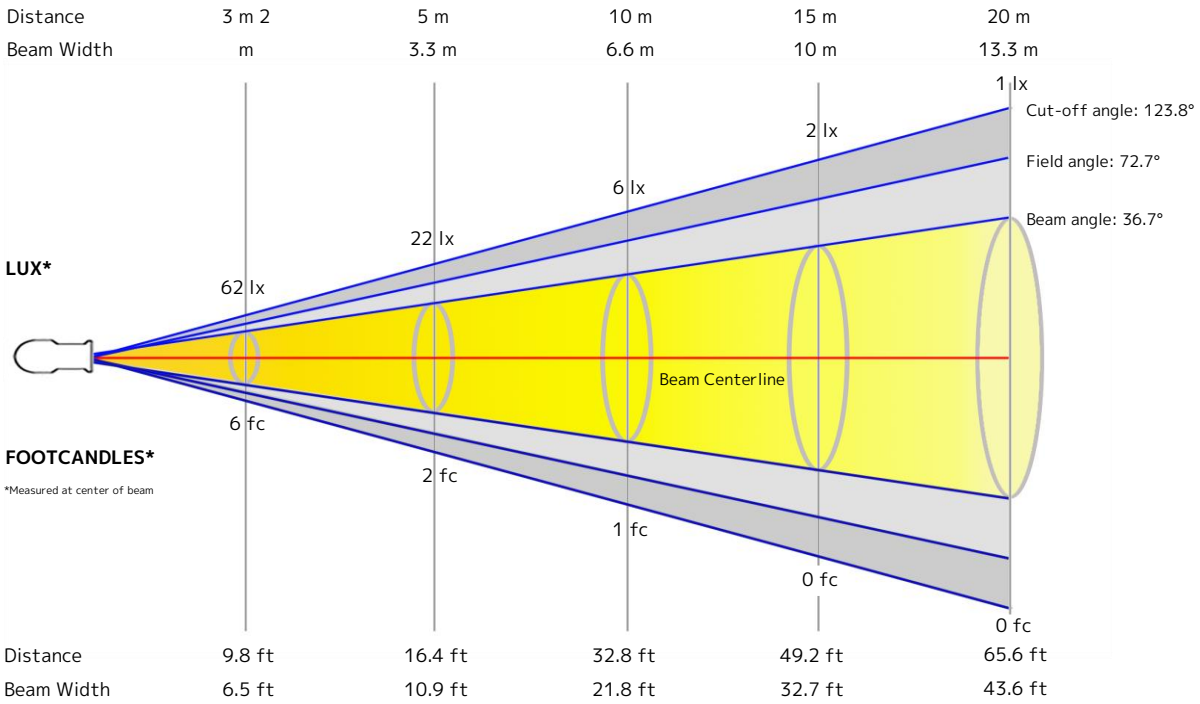

## Spectral Power Distribution

Dominant Wavelength 473 nm






| Dominant Wavelength | Color Coordinate CIE 1931 | Color Coordinate CIE1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---|---|---|---|---|
| nm | x | y | u | v |
| 473 | 0.302 | 0.315 | 0.196 | 0.306 |




## Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 556 | 139 | 62 | 35 | 22 | 15 | 11 | 9 | 7 | 6 | 5 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 |
| FC | 51.7 | 12.9 | 5.7 | 3.2 | 2.1 | 1.4 | 1.1 | 0.8 | 0.6 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |



**Measurement Date: 6/5/2023**

## Measurements

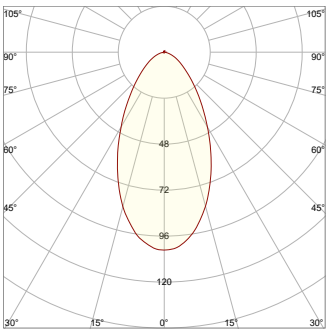
Total Lumen Output: 114 lm

Peak Intensity: 103 cd

Efficacy: 13 Lumen/Watt

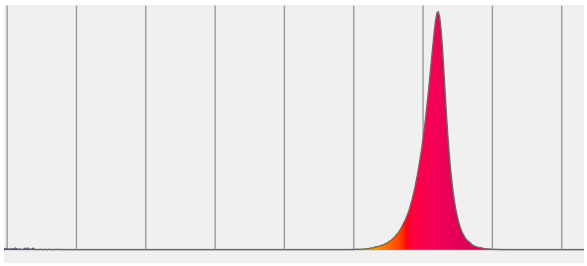
Power: 8.9 W

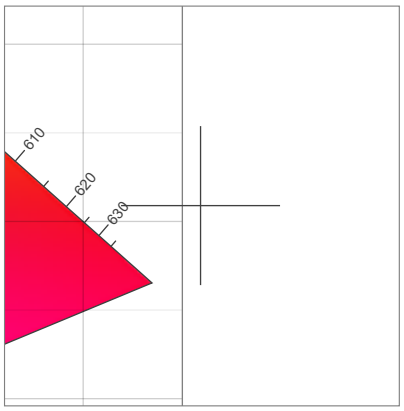
Voltage: 23.4 V, Current: 0.380 A



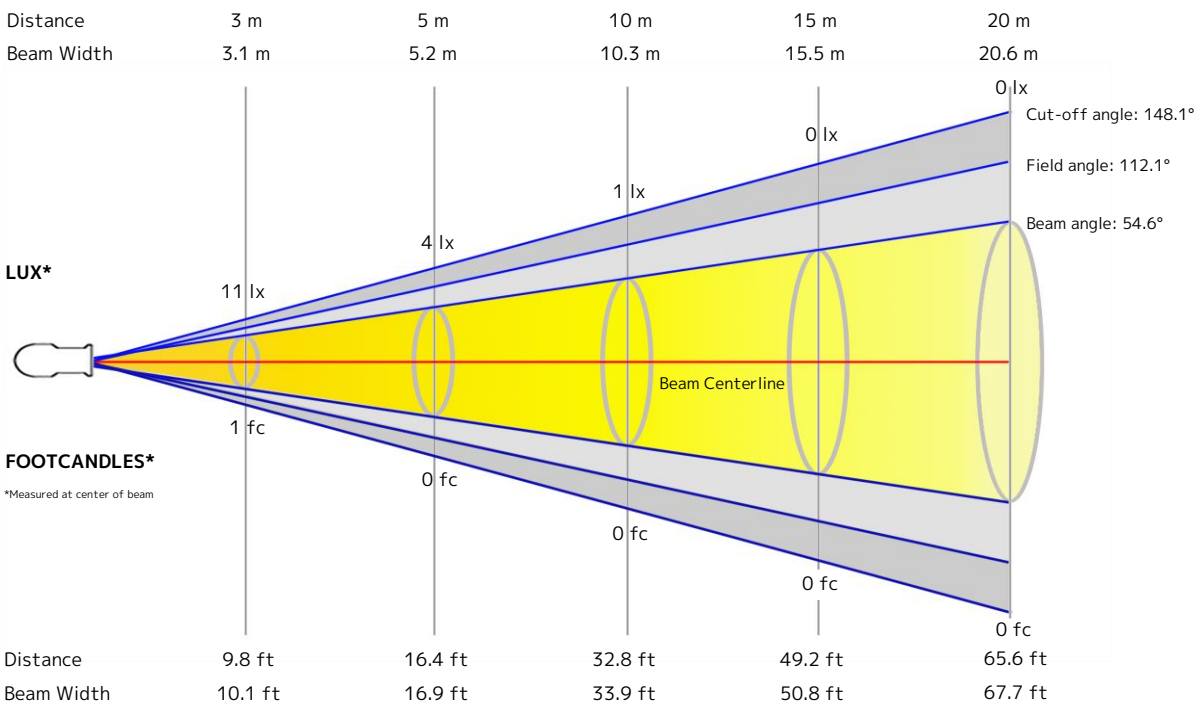

## Spectral Power Distribution

Dominant Wavelength 618 nm






| Dominant Wavelength | Color Coordinate CIE 1931 | Color Coordinate CIE1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---|---|---|---|---|
| nm | x | y | u | v |
| 618 | 0.759 | 0.309 | 0.585 | 0.357 |




## Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 103 | 26 | 11 | 6 | 4 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| FC | 9.6 | 2.4 | 1.1 | 0.6 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Pixel Wash 40IP (Frost, Green)

## Measurements

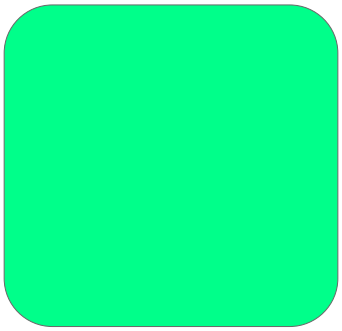
Total Lumen Output: 212 lm

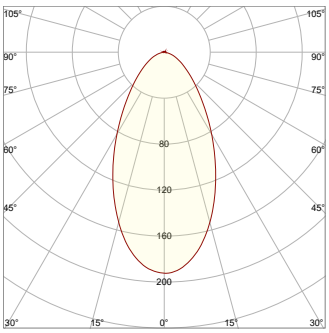
Peak Intensity: 192 cd

Efficacy: n/a Lumen/Watt

Power: - W

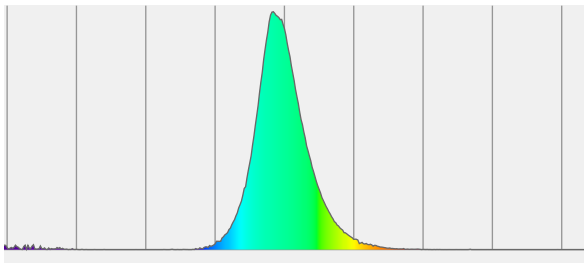
Voltage: 117 V, Current: 0.000 A

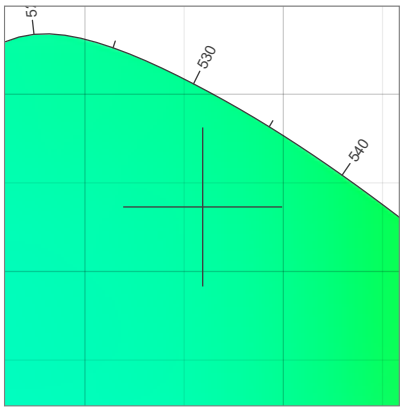




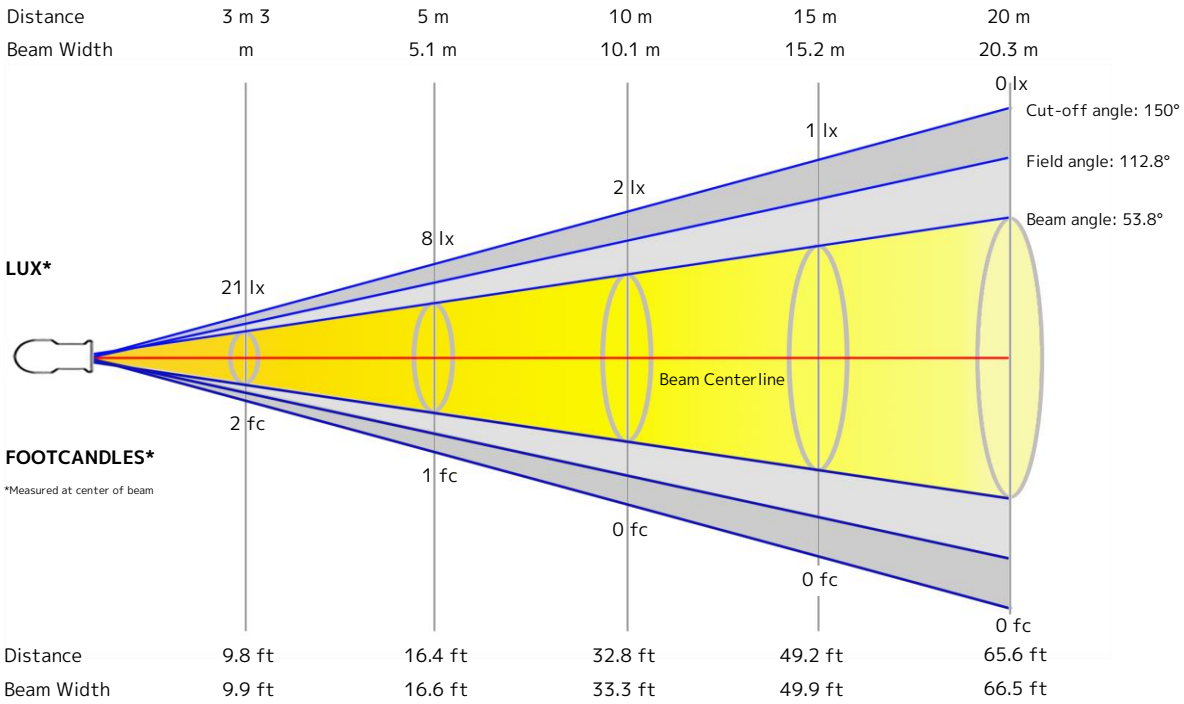

## Spectral Power Distribution

Dominant Wavelength 527 nm






| Dominant Wavelength | Color Coordinate CIE 1931 | Color Coordinate CIE1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---|---|---|---|---|
| nm | x | y | u | v |
| 527 | 0.159 | 0.736 | 0.055 | 0.384 |




## Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 192 | 48 | 21 | 12 | 8 | 5 | 4 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| FC | 17.8 | 4.5 | 2 | 1.1 | 0.7 | 0.5 | 0.4 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0 | 0 |



**Measurement Date: 6/6/2023**

# Pixel Wash 40IP (Frost, Blue)

## Measurements

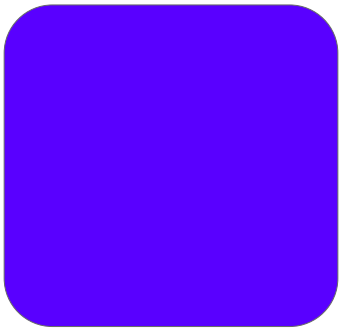
Total Lumen Output: 41.1 lm

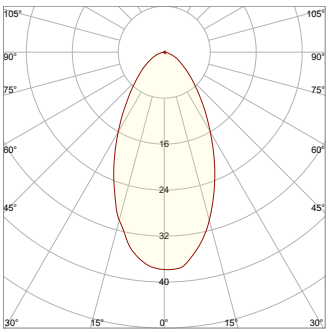
Peak Intensity: 37.8 cd

Efficacy: 4 Lumen/Watt

Power: 10.8 W

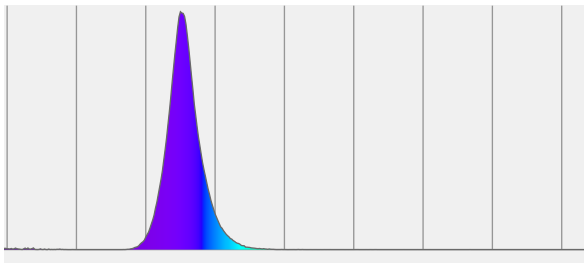
Voltage: 23.4 V, Current: 0.460 A

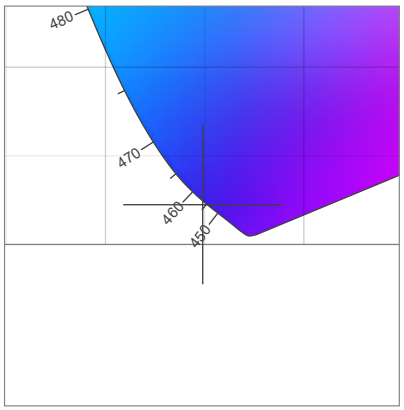




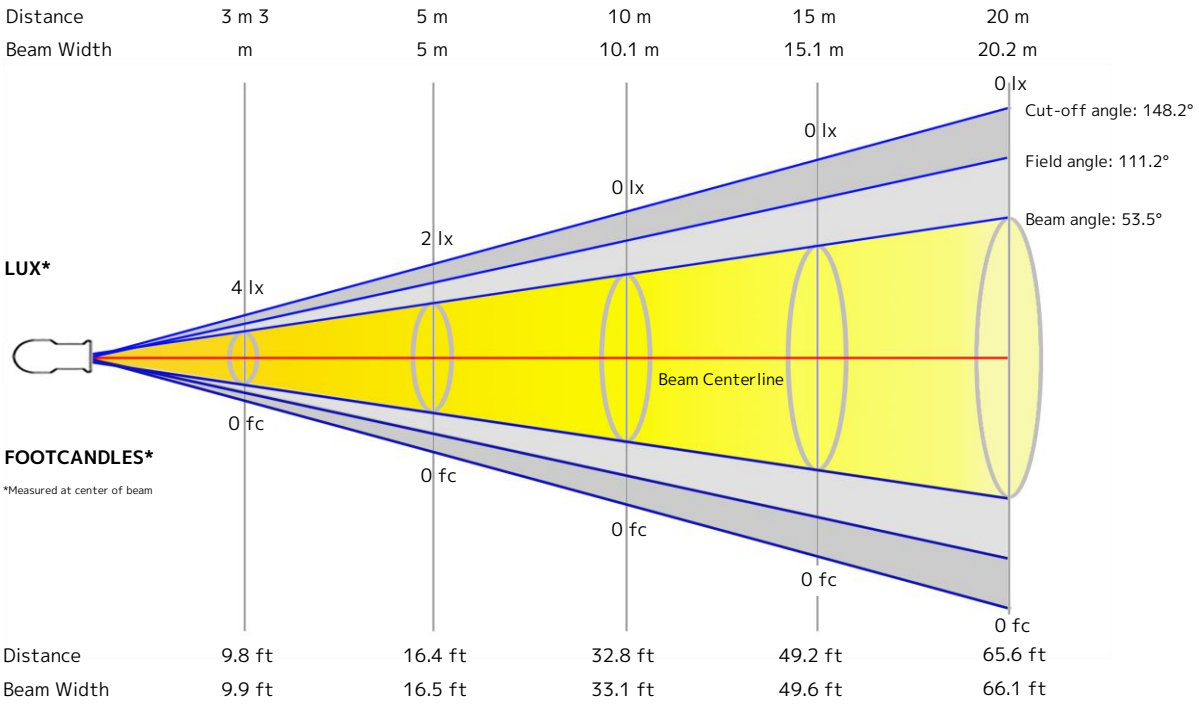

## Spectral Power Distribution

Dominant Wavelength 456 nm






| Dominant Wavelength | Color Coordinate CIE 1931 | Color Coordinate CIE1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---|---|---|---|---|
| nm | x | y | u | v |
| 456 | 0.149 | 0.022 | 0.201 | 0.045 |




## Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 38 | 9 | 4 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FC | 3.5 | 0.9 | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



**Measurement Date: 6/6/2023**

## Measurements

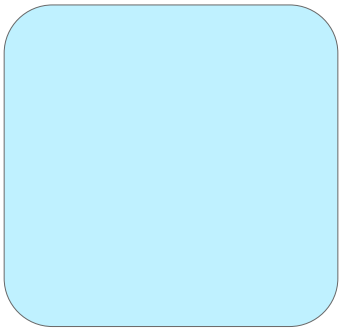
Total Lumen Output: 266 lm

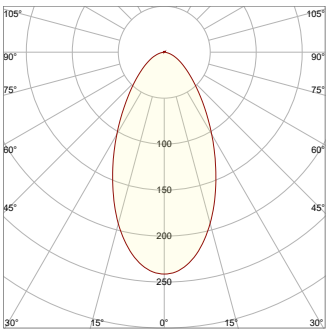
Peak Intensity: 241 cd

Efficacy: 25 Lumen/Watt

Power: 10.8 W

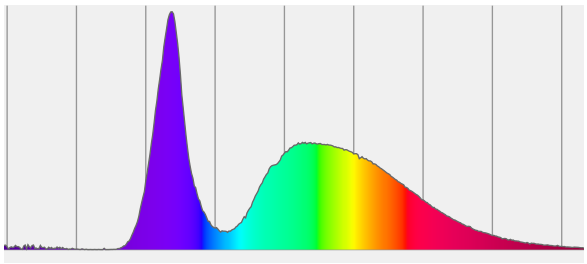
Voltage: 23.4 V, Current: 0.460 A

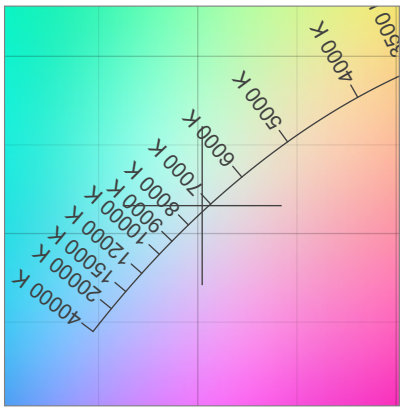




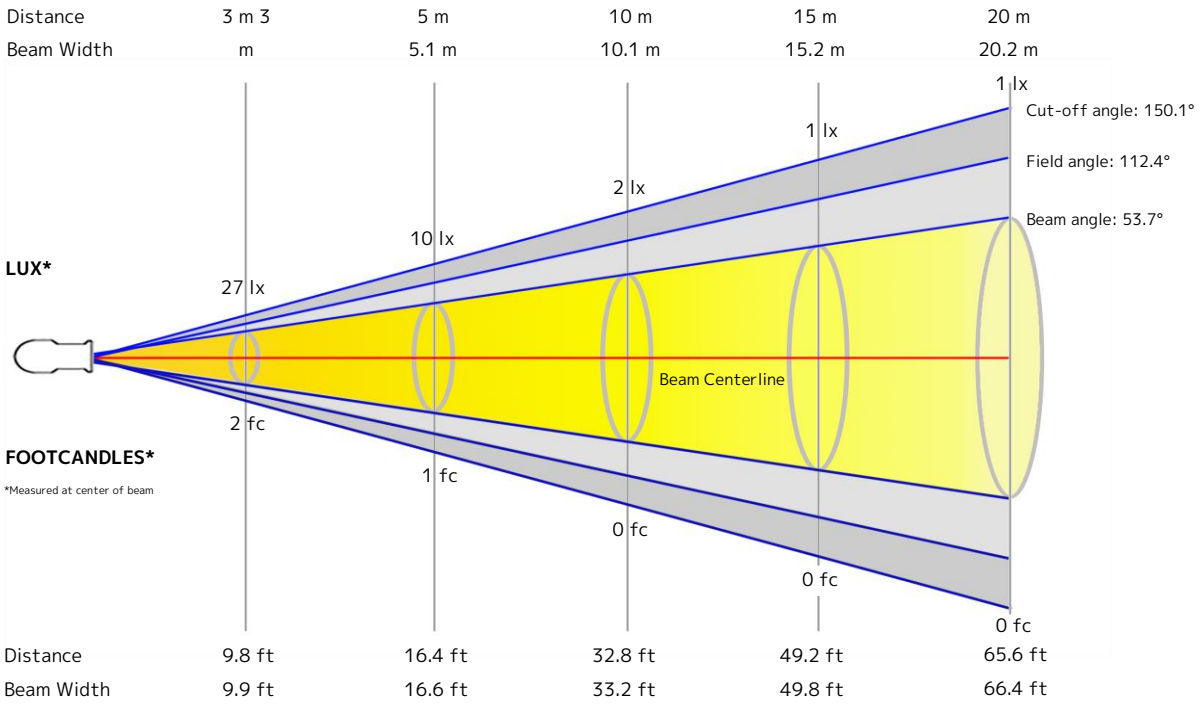

## Spectral Power Distribution

Dominant Wavelength 474 nm






| Dominant Wavelength | Color Coordinate CIE 1931 | Color Coordinate CIE1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 |
|---|---|---|---|---|
| nm | x | y | u | v |
| 474 | 0.302 | 0.316 | 0.195 | 0.306 |




## Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 241 | 60 | 27 | 15 | 10 | 7 | 5 | 4 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| FC | 22.4 | 5.6 | 2.5 | 1.4 | 0.9 | 0.6 | 0.5 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |



**Measurement Date: 6/6/2023**