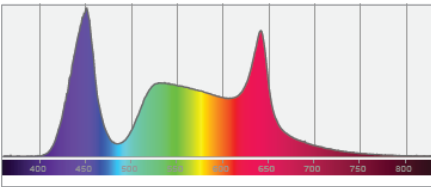
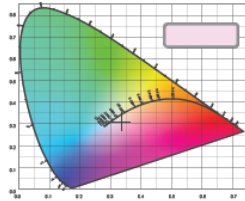


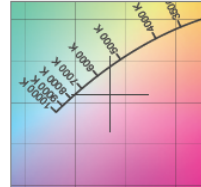
Spectral distribution



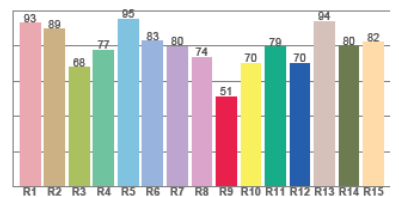
Color coordinates



Zoom color point



CRI R values



Photometric Test Report

*Due to additional product enhancements, an updated version of this report may be available online. Please check www.adj.com for the latest revision/update of this report.

32 Hex Panel IP W Diffuser



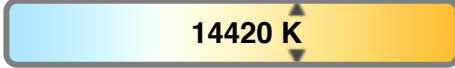
Light Efficiency:



Light Quality:



Color Temperature:

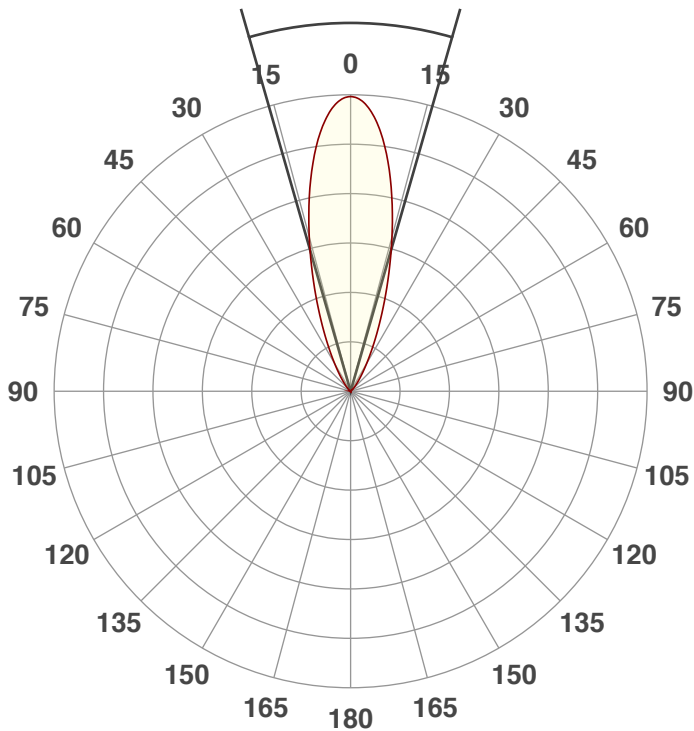


Output: 5573 lm
Peak: 14802 cd
Power: 255.9 W
PF: 0.99

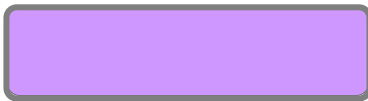


Beam Angle

32°



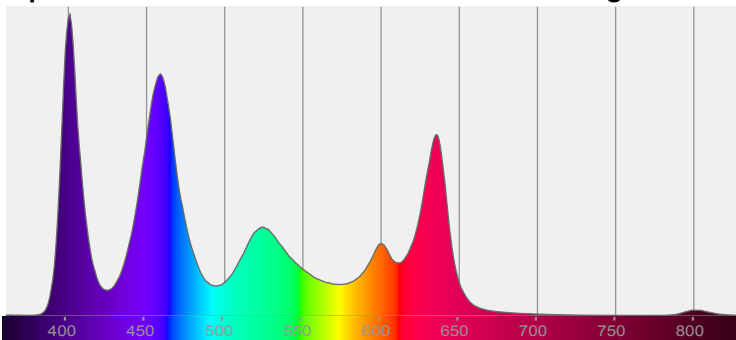
Test: Full On
Date: 3/6/2019
Note:



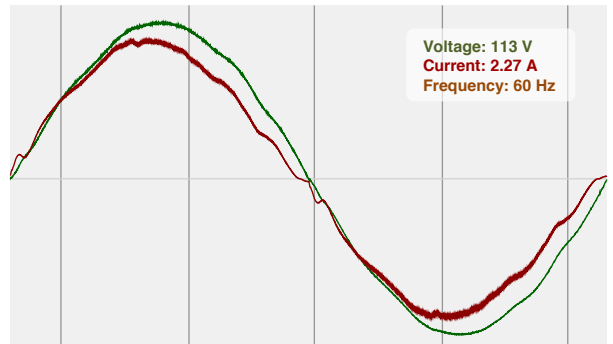
CIE 1931
x: 0.289
y: 0.239

Spectra

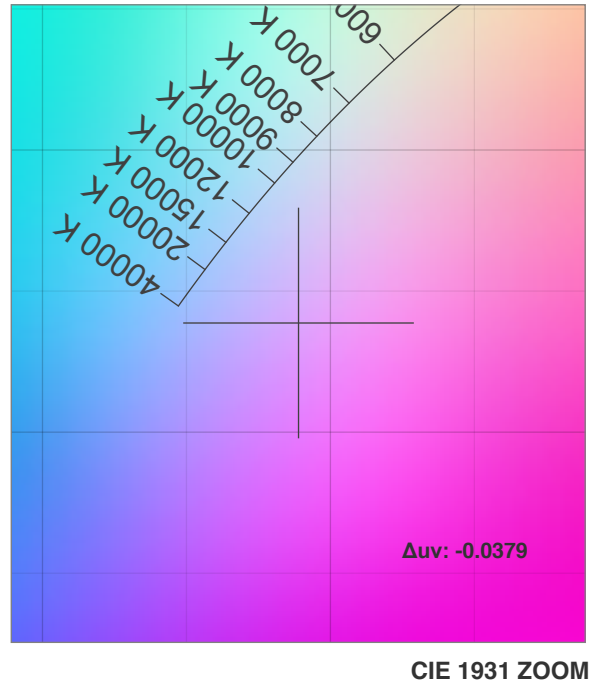
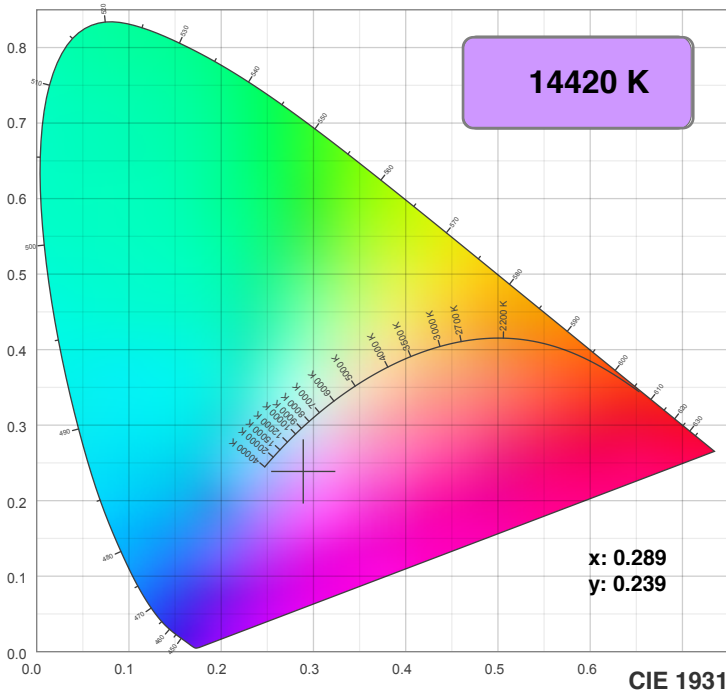
Dominant Wavelength: 360nm



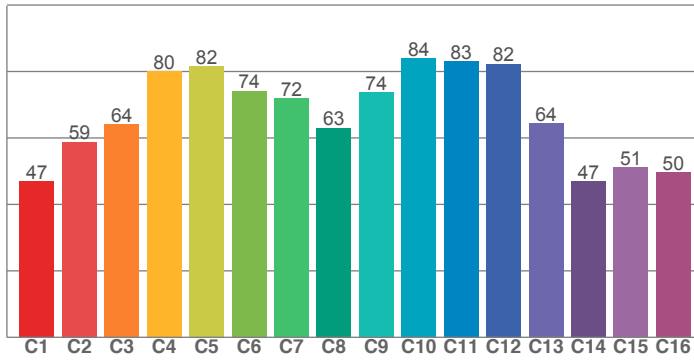
Power



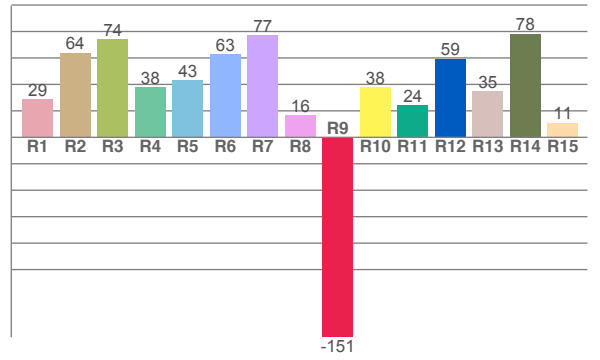
Color Details



TM30: 69.1



CRI: 50.5 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|------|------|------|------|------|------|------|------|--------|------|------|------|------|------|------|
| 28.6 | 63.9 | 74.4 | 37.6 | 43.3 | 62.9 | 76.9 | 16.4 | -151.2 | 37.7 | 24.5 | 59.4 | 34.6 | 78.3 | 10.9 |

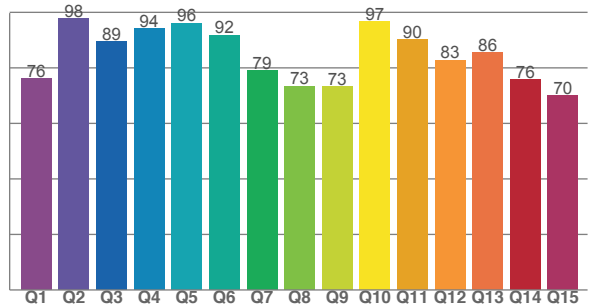
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 46.9 | 58.8 | 64.1 | 80.1 | 81.6 | 74.2 | 71.9 | 63.0 | 73.8 | 83.9 | 83.1 | 82.2 | 64.4 | 46.9 | 51.1 | 49.6 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 76.1 | 97.7 | 89.4 | 94.0 | 96.2 | 91.9 | 79.1 | 73.4 | 73.1 | 96.6 | 90.2 | 82.8 | 85.6 | 75.7 | 70.1 |

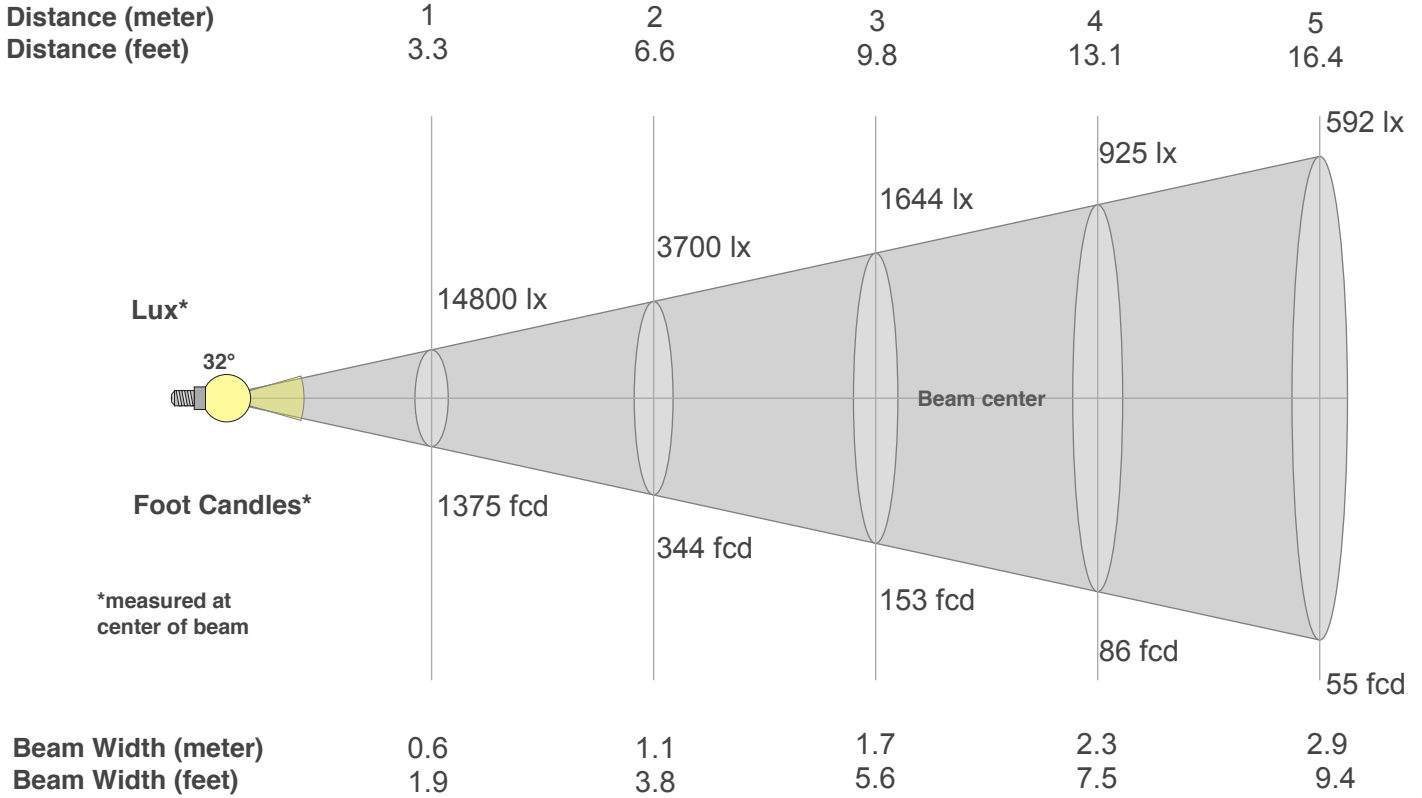
CQS: 82.2



Color Parameters

| Color Temperature | Color Rendering Index | Red Component | Color Fidelity | Color Gamut | Color Quality Scale | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 | Color Coordinate | Color Coordinate | Color Deviation from Black Body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 14420 K | 50.5 | -151.2 | 69.1 | 117.2 | 82.2 | 0.289 | 0.239 | 0.219 | 0.271 | -0.0379 |

Beam Details



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 | 14800 | 3700 | 1644 | 925 | 592 | 411 | 302 | 231 | 183 | 148 | 122 | 103 | 88 | 76 | 66 | 58 | 51 | 46 | 41 | 37 |
| fcd | 1374.9 | 343.7 | 152.8 | 85.9 | 55 | 38.2 | 28.1 | 21.5 | 17 | 13.7 | 11.4 | 9.5 | 8.1 | 7 | 6.1 | 5.4 | 4.8 | 4.2 | 3.8 | 3.4 |

Intensities in 0° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 14.8K | 14.6K | 14.2K | 13.4K | 12.4K | 11.2K | 10.0K | 8.7K | 7.4K | 6.2K | 5.1K | 4.1K | 3.3K | 2.6K | 2.1K | 1.6K | 1.2K | 0.9K | 0.7K | 0.5K |
| 100% | 99% | 96% | 90% | 84% | 76% | 67% | 59% | 50% | 42% | 35% | 28% | 22% | 18% | 14% | 11% | 8% | 6% | 5% | 4% |

Intensities in 90° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 14.8K | 14.6K | 14.2K | 13.4K | 12.4K | 11.2K | 10.0K | 8.7K | 7.4K | 6.2K | 5.1K | 4.1K | 3.3K | 2.6K | 2.1K | 1.6K | 1.2K | 0.9K | 0.7K | 0.5K |
| 100% | 99% | 96% | 90% | 84% | 76% | 67% | 59% | 50% | 42% | 35% | 28% | 22% | 18% | 14% | 11% | 8% | 6% | 5% | 4% |

Intensities in 180° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 14.8K | 14.6K | 14.1K | 13.4K | 12.4K | 11.2K | 10.0K | 8.7K | 7.4K | 6.2K | 5.1K | 4.2K | 3.3K | 2.7K | 2.1K | 1.6K | 1.2K | 1.0K | 0.7K | 0.6K |
| 100% | 99% | 96% | 90% | 84% | 76% | 67% | 59% | 50% | 42% | 35% | 28% | 23% | 18% | 14% | 11% | 8% | 6% | 5% | 4% |

Intensities in 270° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 14.8K | 14.6K | 14.1K | 13.4K | 12.4K | 11.2K | 10.0K | 8.7K | 7.4K | 6.2K | 5.1K | 4.2K | 3.3K | 2.7K | 2.1K | 1.6K | 1.2K | 1.0K | 0.7K | 0.6K |
| 100% | 99% | 96% | 90% | 84% | 76% | 67% | 59% | 50% | 42% | 35% | 28% | 23% | 18% | 14% | 11% | 8% | 6% | 5% | 4% |

| Beam Angle 50% | Field Angle 10% | Cutoff Angle 2,5% | Intensity Ratio in 120° Cone | Intensity Ratio in 90° Cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 32° | 61.3° | 81.7° | 99.8% | 98.1% |

32 Hex Panel IP W Diffuser



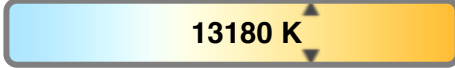
Light Efficiency:



Light Quality:



Color Temperature:

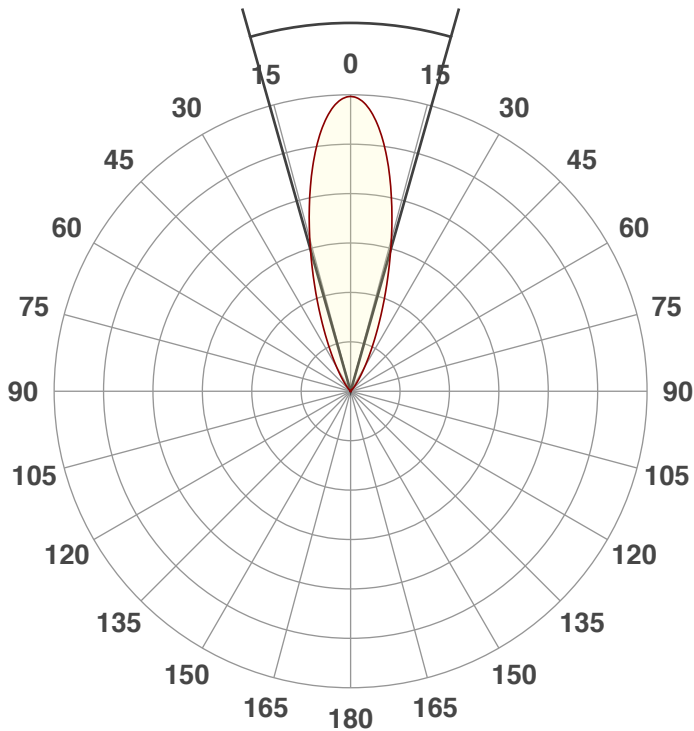


Output: 5535 lm
Peak: 15773 cd
Power: 214.4 W
PF: 0.99



Beam Angle

31.6°



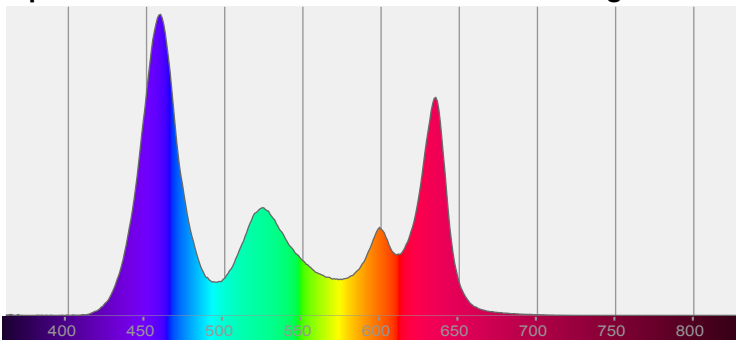
Test: Full On No UV
Date: 3/6/2019
Note:



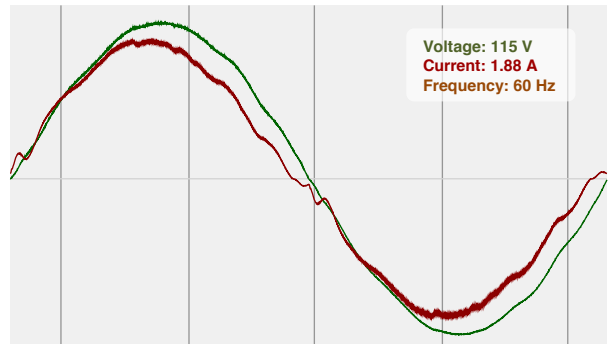
CIE 1931
x: 0.290
y: 0.243

Spectra

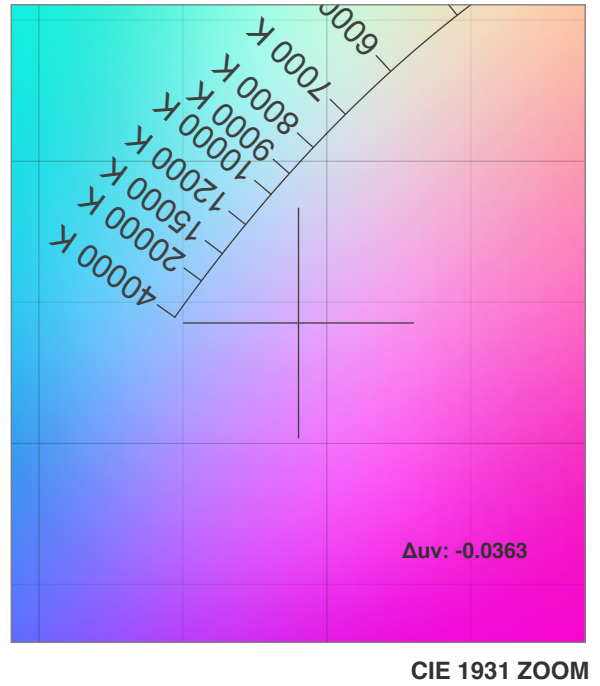
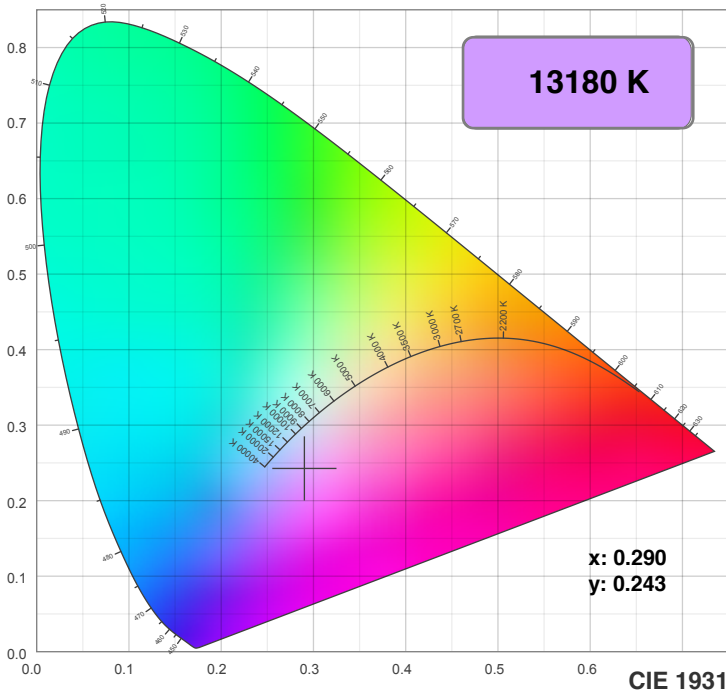
Dominant Wavelength: 360nm



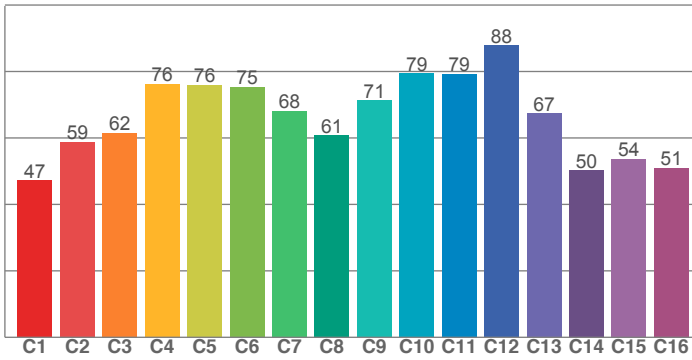
Power



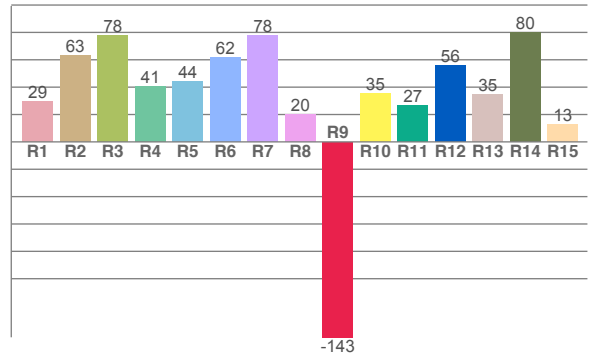
Color Details



TM30: 67.8



CRI: 51.9 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|------|------|------|------|------|------|------|------|--------|------|------|------|------|------|------|
| 29.4 | 63.1 | 77.9 | 40.9 | 44.4 | 61.9 | 78.0 | 19.7 | -142.8 | 35.4 | 27.0 | 56.0 | 34.8 | 80.1 | 13.0 |

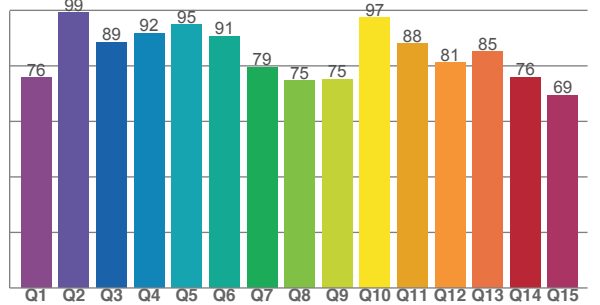
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 47.2 | 58.8 | 61.6 | 76.2 | 75.9 | 75.4 | 68.1 | 60.8 | 71.3 | 79.3 | 79.3 | 87.8 | 67.5 | 50.3 | 53.7 | 51.0 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 75.8 | 99.2 | 88.6 | 91.8 | 94.8 | 90.7 | 79.5 | 74.6 | 75.2 | 97.3 | 87.9 | 81.2 | 85.2 | 75.9 | 69.4 |

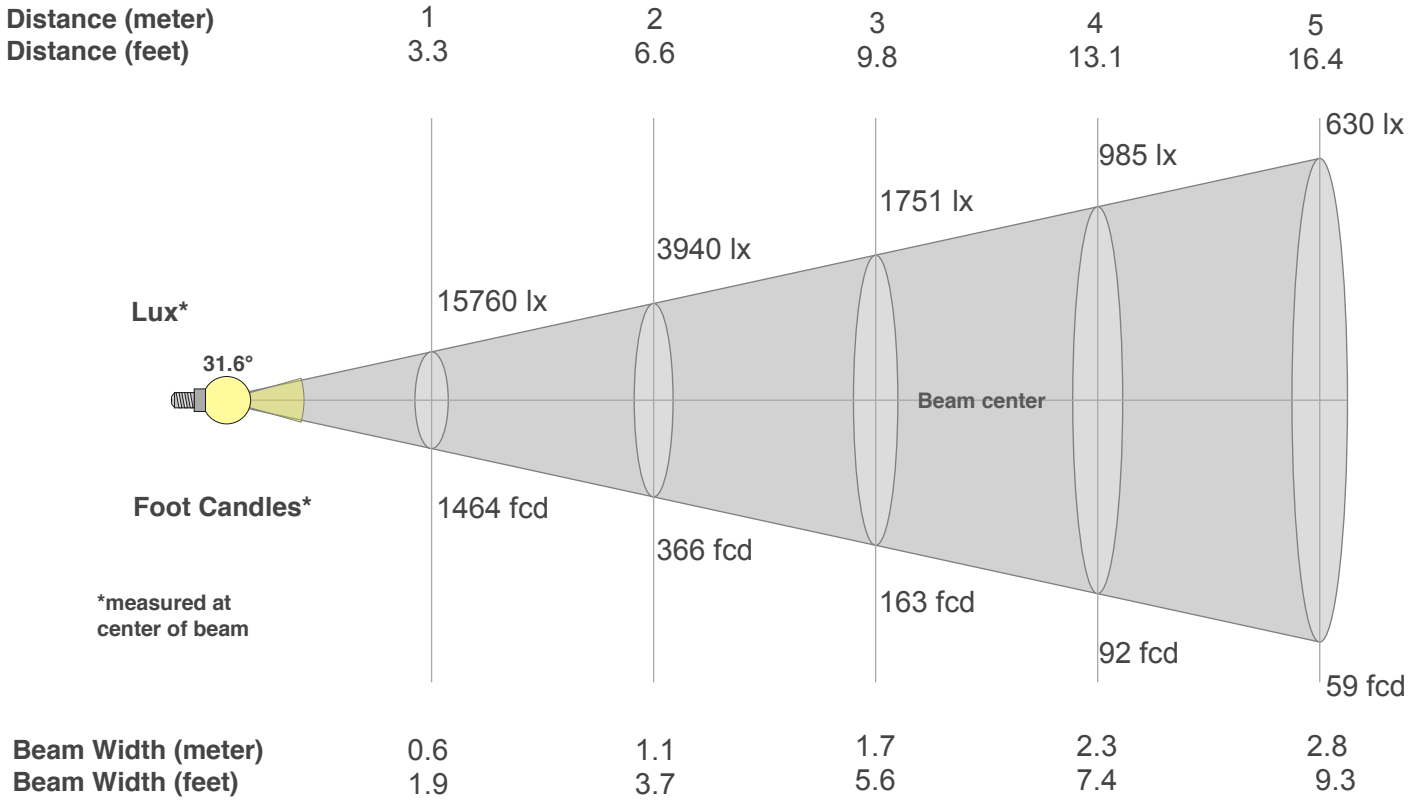
CQS: 82.1



Color Parameters

| Color Temperature | Color Rendering Index | Red Component | Color Fidelity | Color Gamut | Color Quality Scale | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 | Color Coordinate | Color Coordinate | Color Deviation from Black Body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 13180 K | 51.9 | -142.8 | 67.8 | 114.6 | 82.1 | 0.290 | 0.243 | 0.218 | 0.273 | -0.0363 |

Beam Details



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 | 15760 | 3940 | 1751 | 985 | 630 | 438 | 322 | 246 | 195 | 158 | 130 | 109 | 93 | 80 | 70 | 62 | 55 | 49 | 44 | 39 |
| fcd | 1464.1 | 366 | 162.7 | 91.5 | 58.6 | 40.7 | 29.9 | 22.9 | 18.1 | 14.6 | 12.1 | 10.2 | 8.7 | 7.5 | 6.5 | 5.7 | 5.1 | 4.5 | 4.1 | 3.7 |

Intensities in 0° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 15.8K | 15.6K | 15.1K | 14.2K | 13.2K | 11.9K | 10.5K | 9.1K | 7.8K | 6.5K | 5.3K | 4.2K | 3.4K | 2.6K | 2.0K | 1.5K | 1.1K | 0.8K | 0.6K | 0.4K |
| 100% | 99% | 96% | 90% | 84% | 76% | 67% | 58% | 49% | 41% | 34% | 27% | 21% | 17% | 13% | 10% | 7% | 5% | 4% | 2% |

Intensities in 90° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 15.8K | 15.6K | 15.1K | 14.2K | 13.2K | 11.9K | 10.5K | 9.1K | 7.8K | 6.5K | 5.3K | 4.2K | 3.4K | 2.6K | 2.0K | 1.5K | 1.1K | 0.8K | 0.6K | 0.4K |
| 100% | 99% | 96% | 90% | 84% | 76% | 67% | 58% | 49% | 41% | 34% | 27% | 21% | 17% | 13% | 10% | 7% | 5% | 4% | 2% |

Intensities in 180° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 15.8K | 15.6K | 15.1K | 14.2K | 13.1K | 11.9K | 10.5K | 9.1K | 7.8K | 6.5K | 5.3K | 4.3K | 3.4K | 2.6K | 2.0K | 1.5K | 1.1K | 0.8K | 0.6K | 0.4K |
| 100% | 99% | 96% | 90% | 83% | 75% | 67% | 58% | 49% | 41% | 34% | 27% | 21% | 17% | 13% | 10% | 7% | 5% | 4% | 2% |

Intensities in 270° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 15.8K | 15.6K | 15.1K | 14.2K | 13.1K | 11.9K | 10.5K | 9.1K | 7.8K | 6.5K | 5.3K | 4.3K | 3.4K | 2.6K | 2.0K | 1.5K | 1.1K | 0.8K | 0.6K | 0.4K |
| 100% | 99% | 96% | 90% | 83% | 75% | 67% | 58% | 49% | 41% | 34% | 27% | 21% | 17% | 13% | 10% | 7% | 5% | 4% | 2% |

| Beam Angle 50% | Field Angle 10% | Cutoff Angle 2,5% | Intensity Ratio in 120° Cone | Intensity Ratio in 90° Cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 31.6° | 59.4° | 75.8° | 99.9% | 99.5% |

32 Hex Panel IP



Light Efficiency:

30 Lumen/Watt

Dominant Wavelength:

622 nm

Output:

1204 lm

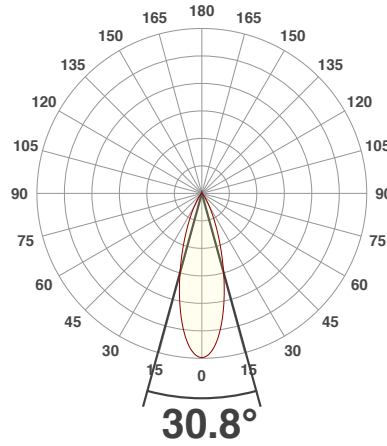
Power:

40.1 W

Peak:

3406 cd

Beam Angle



Test:

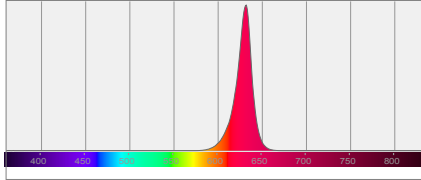
Red

Date:

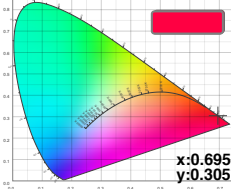
3/6/2019

Note:

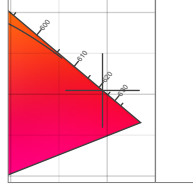
Spectral Distribution



Color Coordinates



Zoom Color Point



Distance (meter)

Distance (feet)

1

3.3

3

9.8

5

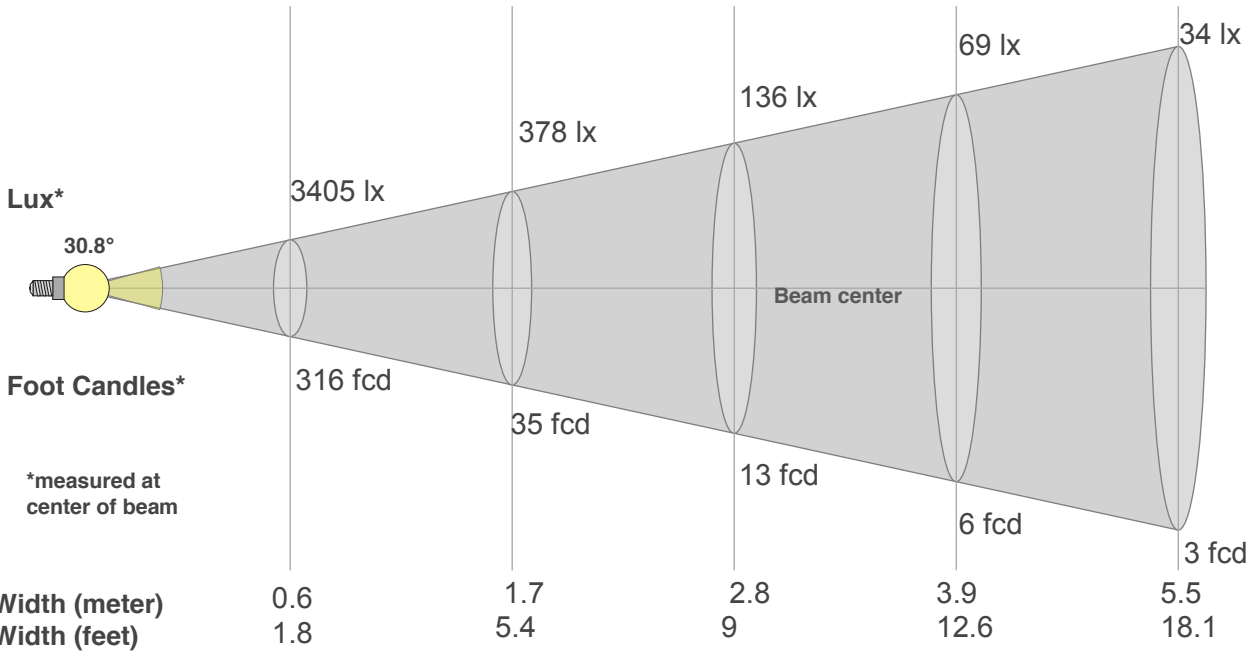
16.4

7

22.9

10

32.8



| Beam Angle 50% | Field Angle 10% | Cutoff Angle 2,5% | Intensity Ratio in 120° Cone | Intensity Ratio in 90° Cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 30.8° | 59° | 79° | 99.6% | 97.5% |

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 | 3405 | 851 | 378 | 213 | 136 | 95 | 69 | 53 | 42 | 34 | 28 | 24 | 20 | 17 | 15 | 13 | 12 | 11 | 9 | 9 |
| fcd | 316.3 | 79.1 | 35.1 | 19.8 | 12.7 | 8.8 | 6.5 | 4.9 | 3.9 | 3.2 | 2.6 | 2.2 | 1.9 | 1.6 | 1.4 | 1.2 | 1.1 | 1 | 0.9 | 0.8 |

32 Hex Panel IP



Light Efficiency:

40 Lumen/Watt

Dominant Wavelength:

529 nm

Output:

1952 lm

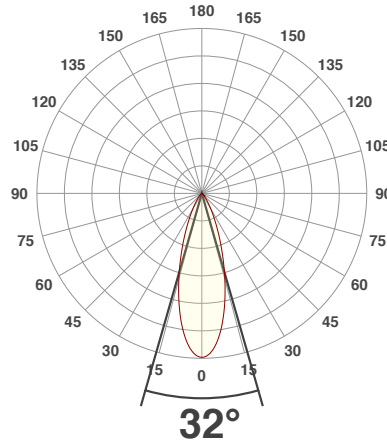
Power:

49.2 W

Peak:

5075 cd

Beam Angle



Test:

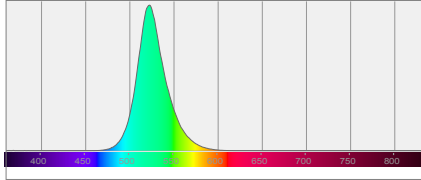
Green

Date:

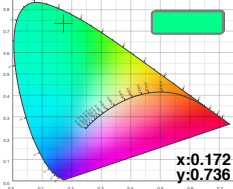
3/6/2019

Note:

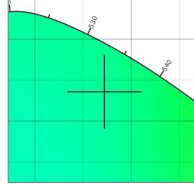
Spectral Distribution



Color Coordinates



Zoom Color Point



Distance (meter)

Distance (feet)

1

3.3

3

9.8

5

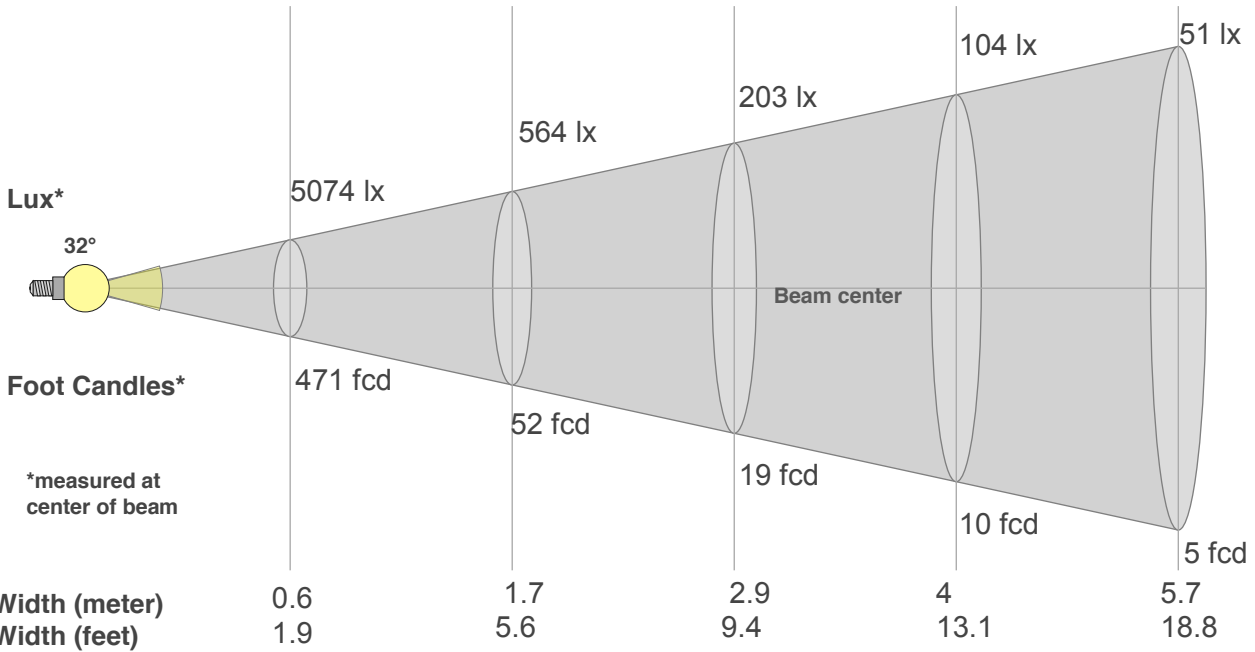
16.4

7

22.9

10

32.8



| Beam Angle 50% | Field Angle 10% | Cutoff Angle 2,5% | Intensity Ratio in 120° Cone | Intensity Ratio in 90° Cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 32° | 61.5° | 83.3° | 99.5% | 96.8% |

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 | 5074 | 1268 | 564 | 317 | 203 | 141 | 104 | 79 | 63 | 51 | 42 | 35 | 30 | 26 | 23 | 20 | 18 | 16 | 14 | 13 |
| fcd | 471.4 | 117.8 | 52.4 | 29.5 | 18.9 | 13.1 | 9.6 | 7.4 | 5.8 | 4.7 | 3.9 | 3.3 | 2.8 | 2.4 | 2.1 | 1.8 | 1.6 | 1.5 | 1.3 | 1.2 |

32 Hex Panel IP



Light Efficiency:

8 Lumen/Watt

Dominant Wavelength:

462 nm

Output:

411 lm

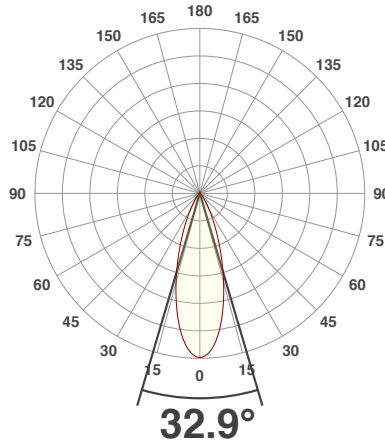
Power:

52.8 W

Peak:

1021 cd

Beam Angle



Test:

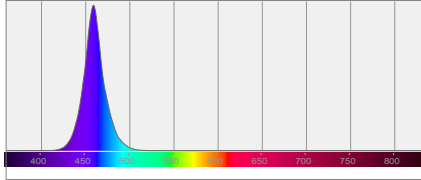
Blue

Date:

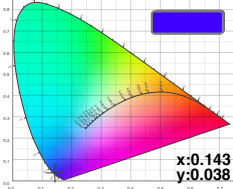
3/6/2019

Note:

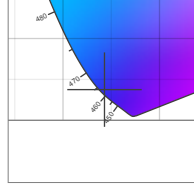
Spectral Distribution



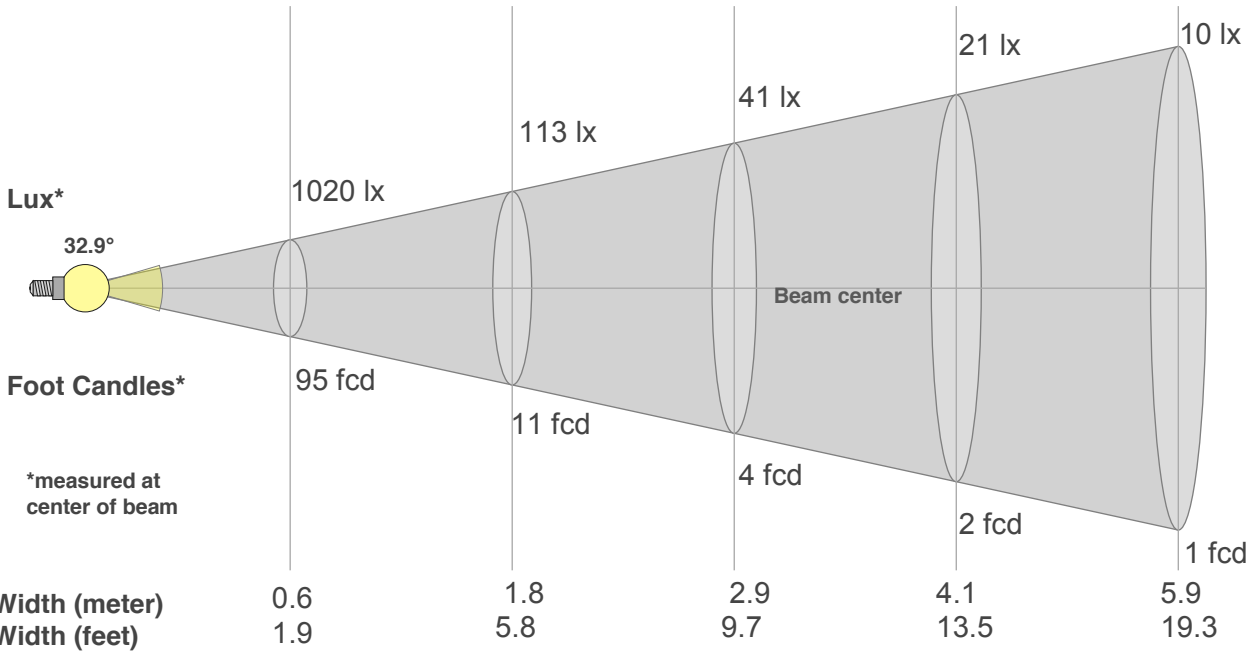
Color Coordinates



Zoom Color Point



| | | | | | |
|------------------|-----|-----|------|------|------|
| Distance (meter) | 1 | 3 | 5 | 7 | 10 |
| Distance (feet) | 3.3 | 9.8 | 16.4 | 22.9 | 32.8 |



| Beam Angle 50% | Field Angle 10% | Cutoff Angle 2,5% | Intensity Ratio in 120° Cone | Intensity Ratio in 90° Cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 32.9° | 62.3° | 84.5° | 98.7% | 95.6% |

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 | 1020 | 255 | 113 | 64 | 41 | 28 | 21 | 16 | 13 | 10 | 8 | 7 | 6 | 5 | 5 | 4 | 4 | 3 | 3 | 3 |
| fcd | 94.8 | 23.7 | 10.5 | 5.9 | 3.8 | 2.6 | 1.9 | 1.5 | 1.2 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 |

32 Hex Panel IP W Diffuser



Light Efficiency:



Light Quality:



Color Temperature:



Output: 869 lm

Peak: 2228 cd

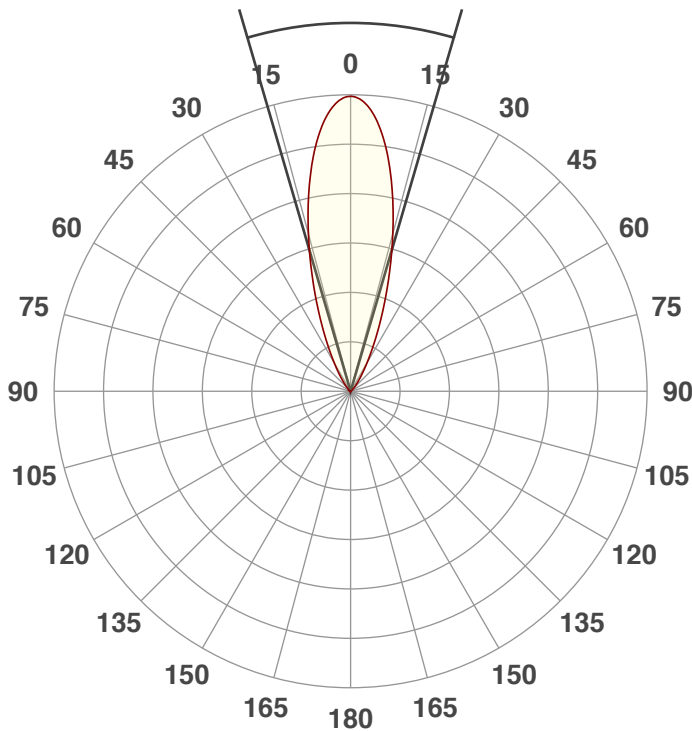
Power: 42.6 W

PF: 0.89



Beam Angle

32.5°



Test:

Amber

Date:

3/6/2019

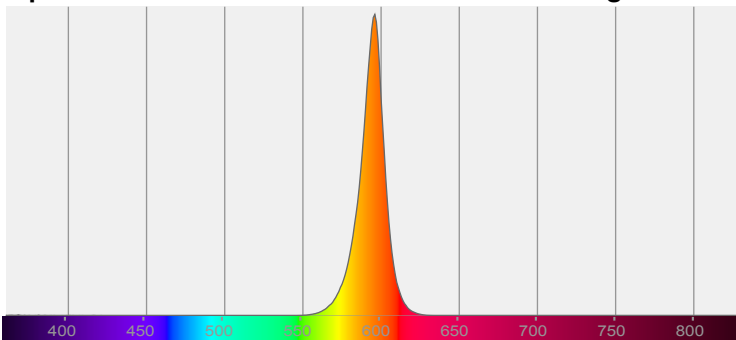
Note:



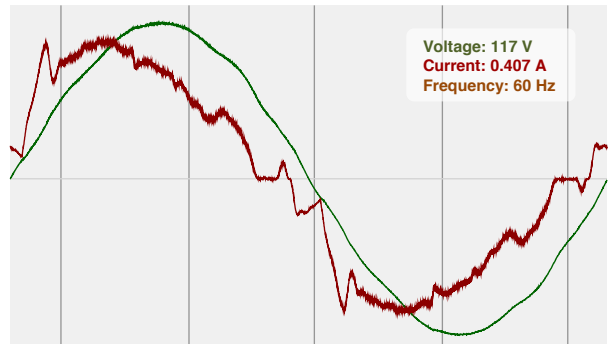
CIE 1931
x: 0.589
y: 0.410

Spectra

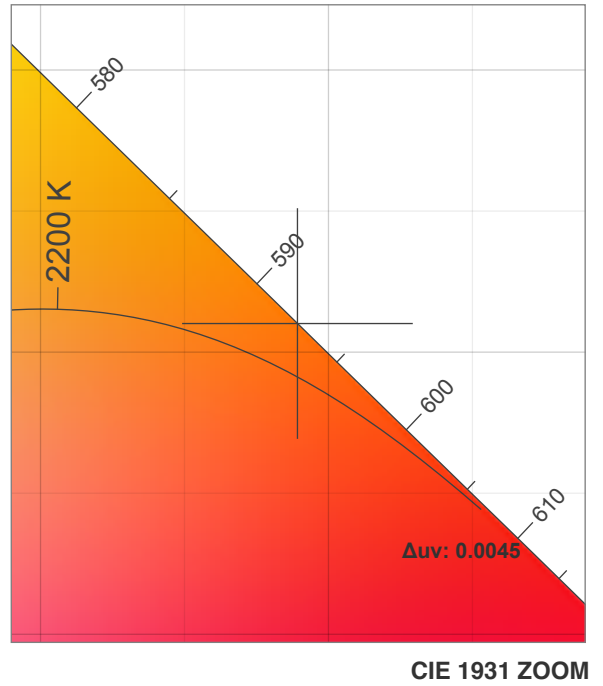
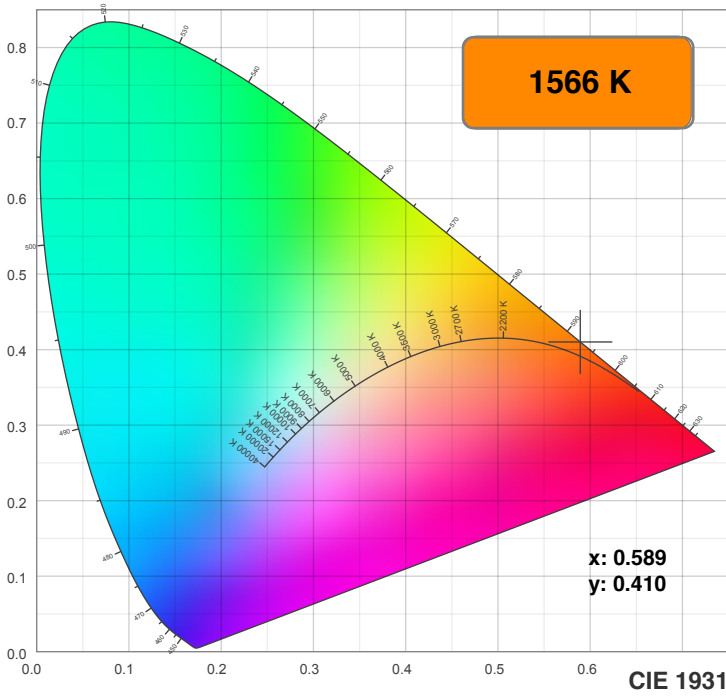
Dominant Wavelength: 592nm



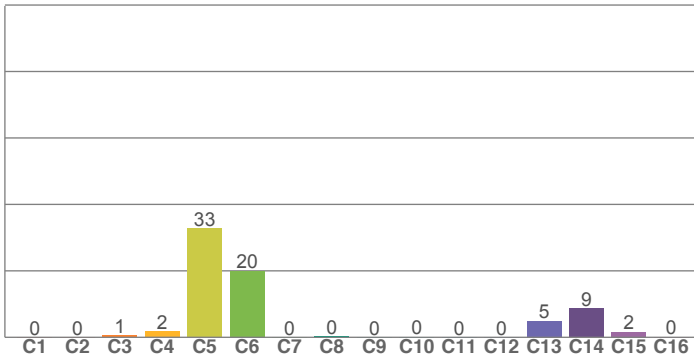
Power



Color Details



TM30: 0.2



CRI R values, only R1-R8 are used to calculate final CRI value

| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|-------|------|------|-------|-------|------|-------|--------|--------|------|--------|-------|-------|------|-------|
| -42.6 | 49.5 | 12.0 | -77.0 | -49.7 | 37.4 | -11.2 | -142.5 | -410.7 | 26.0 | -106.0 | -16.5 | -22.1 | 42.1 | -75.7 |

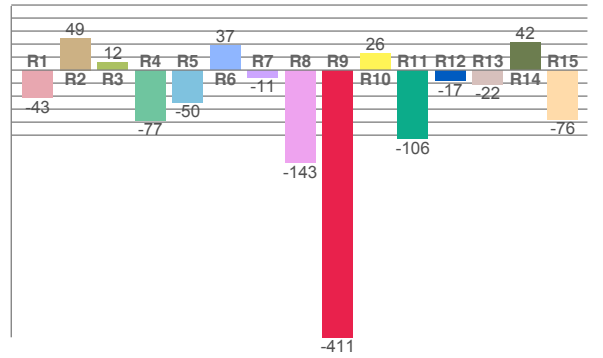
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0.0 | 0.0 | 0.5 | 1.7 | 32.7 | 19.9 | 0.0 | 0.3 | 0.0 | 0.1 | 0.0 | 0.0 | 4.9 | 8.7 | 1.6 | 0.1 |

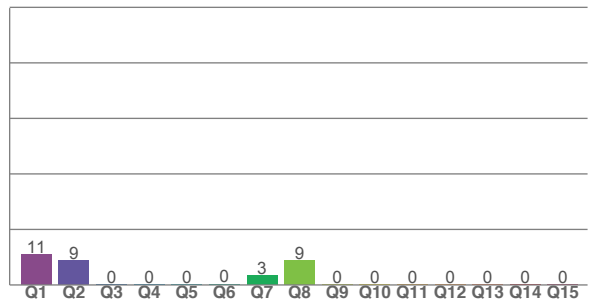
CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 10.8 | 8.7 | 0.0 | 0.0 | 0.0 | 0.3 | 3.3 | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |

CRI: -28.0 (R1-R8)



CQS: 0.0



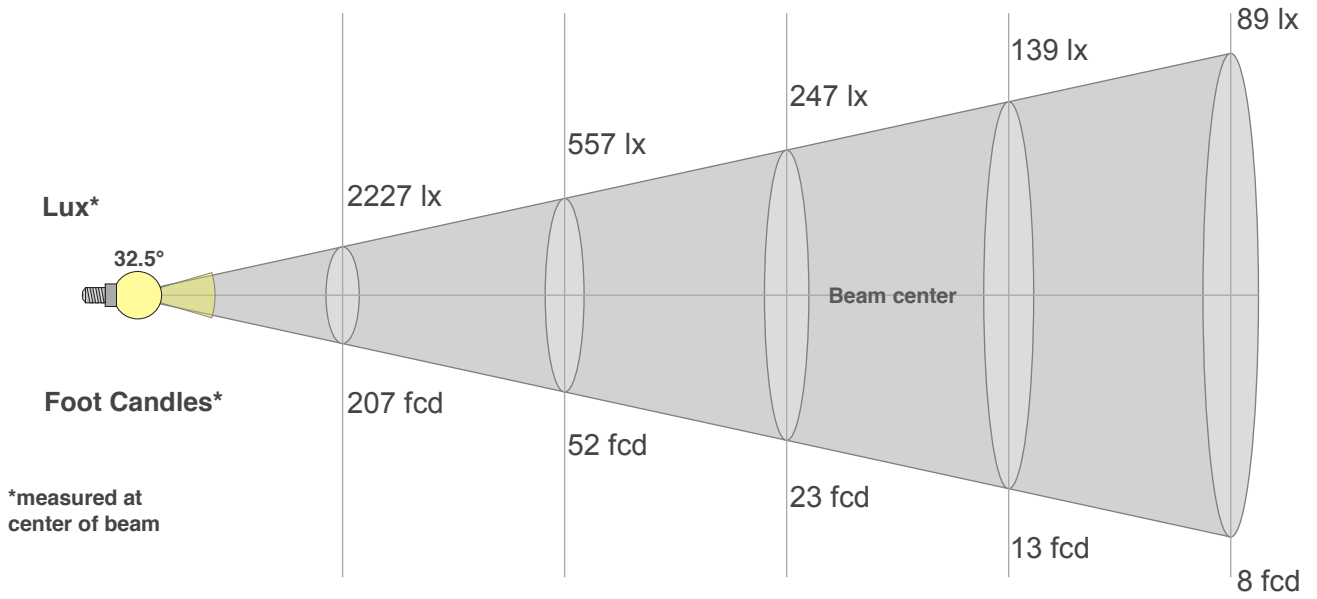
Color Parameters

| Color Temperature | Color Rendering Index | Red Component | Color Fidelity | Color Gamut | Color Quality Scale | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 | Color Coordinate | Color Coordinate | Color Deviation from Black Body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 1566 K | -28.0 | -410.7 | 0.2 | 0.2 | 0.0 | 0.589 | 0.410 | 0.350 | 0.365 | 0.0045 |

Beam Details

Distance (meter)
Distance (feet)

1 2 3 4 5
3.3 6.6 9.8 13.1 16.4



Beam Width (meter)
Beam Width (feet)

0.6 1.2 1.8 2.3 2.9
1.9 3.9 5.7 7.6 9.6

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 | 2227 | 557 | 247 | 139 | 89 | 62 | 45 | 35 | 27 | 22 | 18 | 15 | 13 | 11 | 10 | 9 | 8 | 7 | 6 | 6 |
| fcd | 206.9 | 51.7 | 23 | 12.9 | 8.3 | 5.7 | 4.2 | 3.2 | 2.6 | 2.1 | 1.7 | 1.4 | 1.2 | 1.1 | 0.9 | 0.8 | 0.7 | 0.6 | 0.6 | 0.5 |

Intensities in 0° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2227 | 2203 | 2136 | 2026 | 1881 | 1710 | 1524 | 1330 | 1139 | 956 | 789 | 641 | 514 | 406 | 318 | 247 | 191 | 146 | 113 | 87 |
| 100% | 99% | 96% | 91% | 84% | 77% | 68% | 60% | 51% | 43% | 35% | 29% | 23% | 18% | 14% | 11% | 9% | 7% | 5% | 4% |

Intensities in 90° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2227 | 2203 | 2136 | 2026 | 1881 | 1710 | 1524 | 1330 | 1139 | 956 | 789 | 641 | 514 | 406 | 318 | 247 | 191 | 146 | 113 | 87 |
| 100% | 99% | 96% | 91% | 84% | 77% | 68% | 60% | 51% | 43% | 35% | 29% | 23% | 18% | 14% | 11% | 9% | 7% | 5% | 4% |

Intensities in 180° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2227 | 2205 | 2136 | 2024 | 1880 | 1709 | 1522 | 1330 | 1139 | 957 | 792 | 645 | 517 | 408 | 320 | 249 | 192 | 148 | 114 | 88 |
| 100% | 99% | 96% | 91% | 84% | 77% | 68% | 60% | 51% | 43% | 36% | 29% | 23% | 18% | 14% | 11% | 9% | 7% | 5% | 4% |

Intensities in 270° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2227 | 2205 | 2136 | 2024 | 1880 | 1709 | 1522 | 1330 | 1139 | 957 | 792 | 645 | 517 | 408 | 320 | 249 | 192 | 148 | 114 | 88 |
| 100% | 99% | 96% | 91% | 84% | 77% | 68% | 60% | 51% | 43% | 36% | 29% | 23% | 18% | 14% | 11% | 9% | 7% | 5% | 4% |

| Beam Angle 50% | Field Angle 10% | Cutoff Angle 2,5% | Intensity Ratio in 120° Cone | Intensity Ratio in 90° Cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 32.5° | 61.6° | 83° | 99.4% | 96.7% |

32 Hex Panel IP W Diffuser



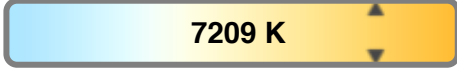
Light Efficiency:



Light Quality:



Color Temperature:



Output: 2111 lm

Peak: 5488 cd

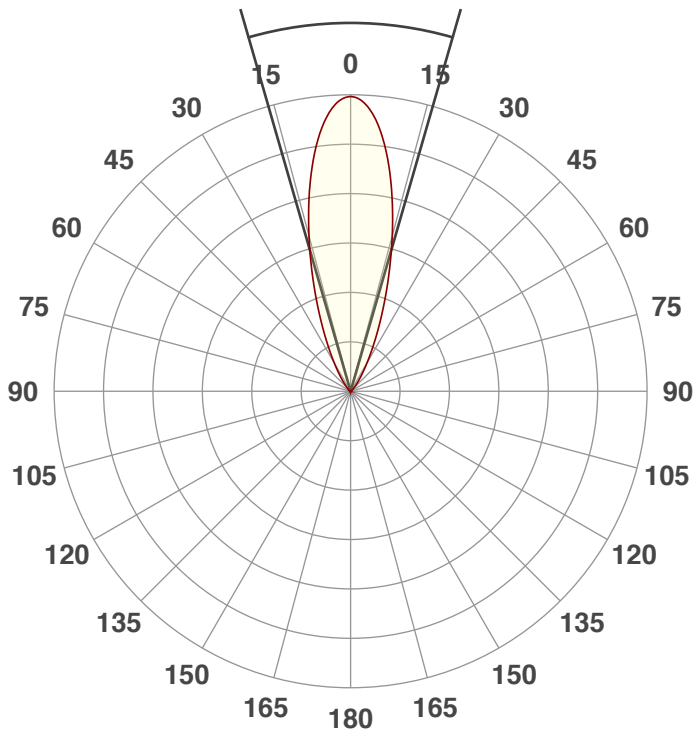
Power: 49.1 W

PF: 0.91



Beam Angle

32.2°



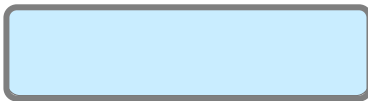
Test:

White

Date:

3/6/2019

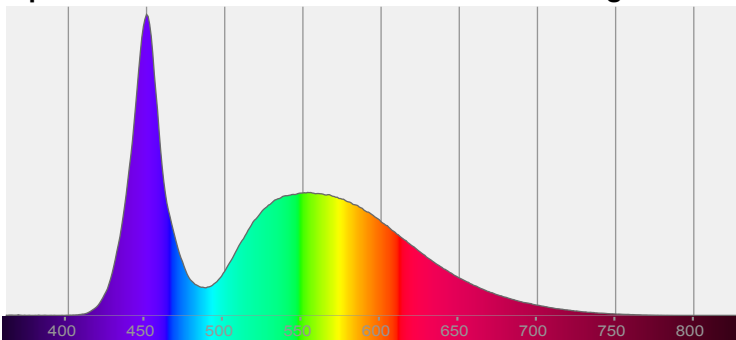
Note:



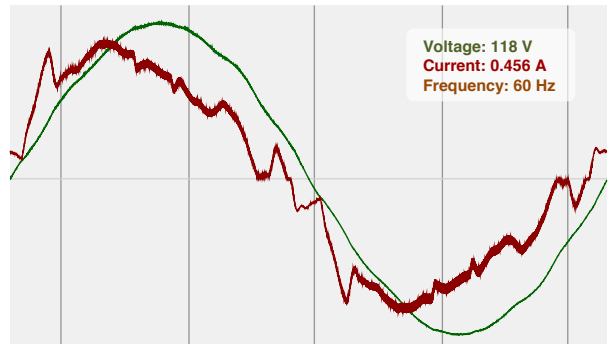
CIE 1931
x: 0.304
y: 0.311

Spectra

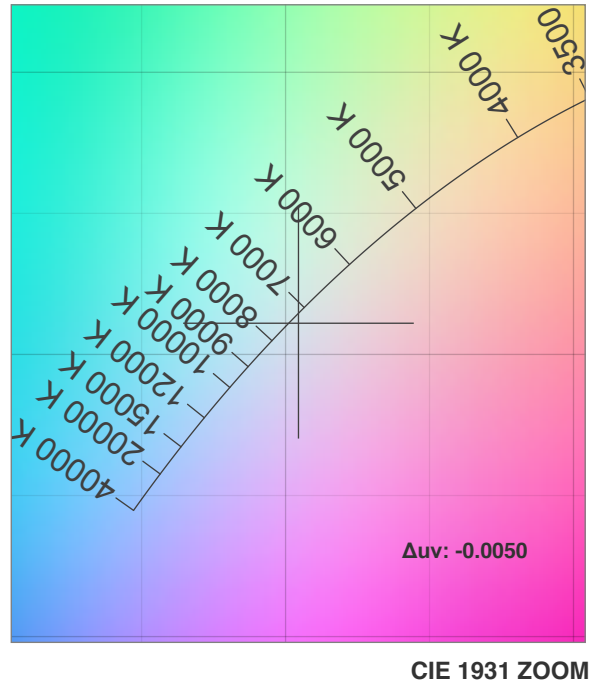
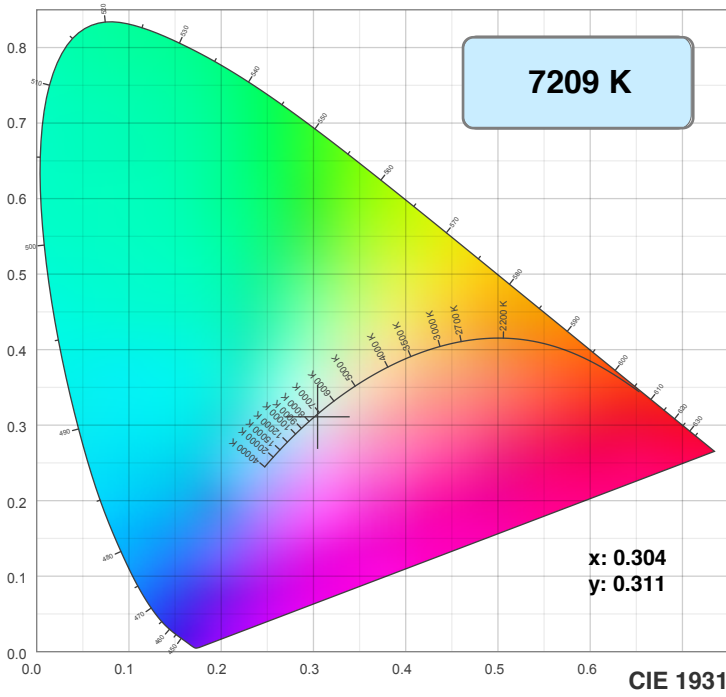
Dominant Wavelength: 437nm



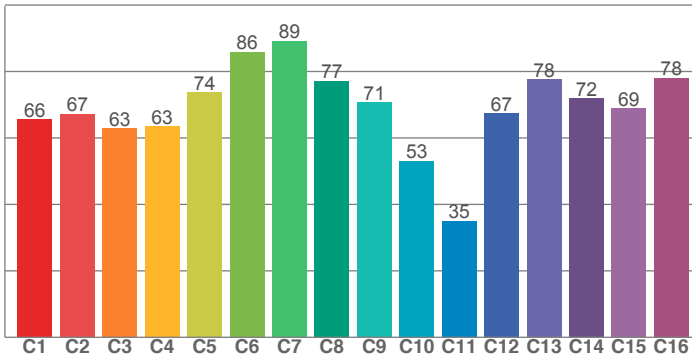
Power



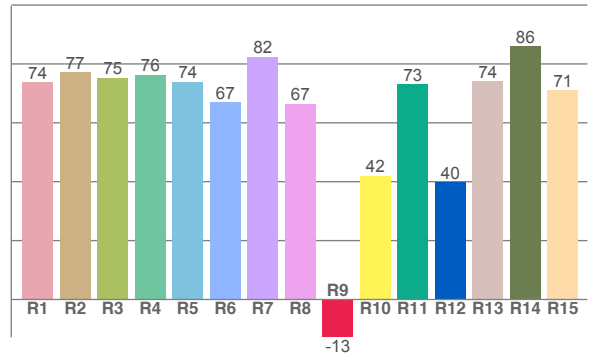
Color Details



TM30: 69.1



CRI: 74.1 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|
| 73.8 | 77.2 | 75.4 | 76.3 | 73.9 | 67.0 | 82.5 | 66.5 | -12.8 | 42.0 | 73.2 | 39.9 | 74.1 | 86.0 | 71.0 |

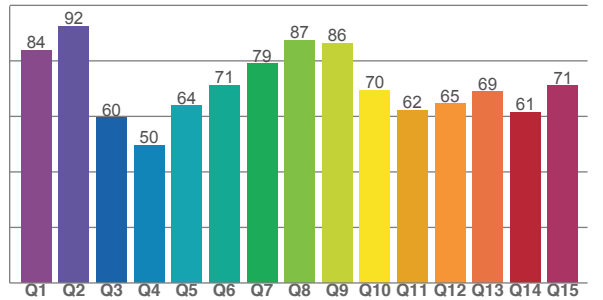
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 65.6 | 67.3 | 62.8 | 63.4 | 73.7 | 86.0 | 89.2 | 77.2 | 70.6 | 53.0 | 35.1 | 67.4 | 77.6 | 71.9 | 68.9 | 78.0 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 83.9 | 92.5 | 59.6 | 49.6 | 63.8 | 71.2 | 78.9 | 87.4 | 86.4 | 69.5 | 62.3 | 64.5 | 69.0 | 61.5 | 71.0 |

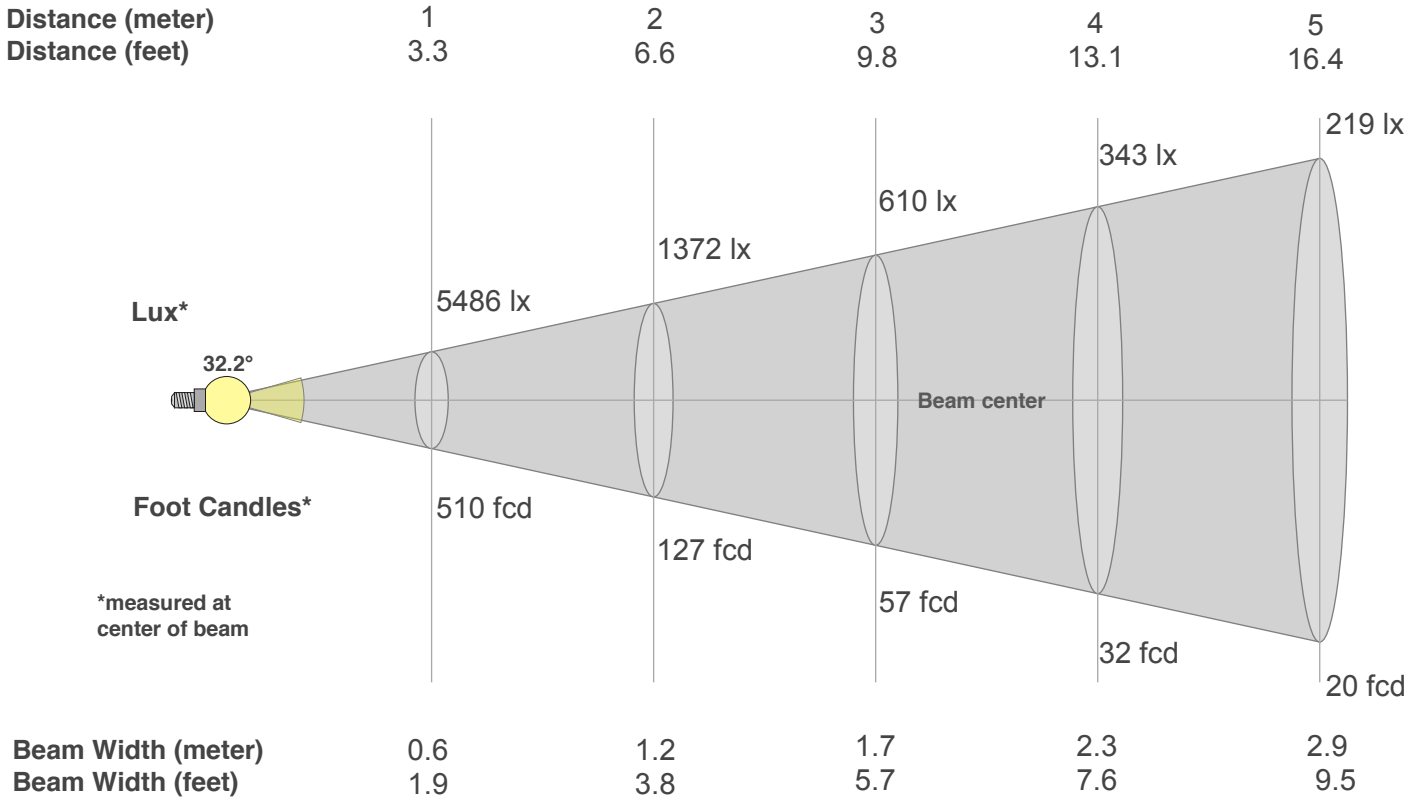
CQS: 69.1



Color Parameters

| Color Temperature | Color Rendering Index | Red Component | Color Fidelity | Color Gamut | Color Quality Scale | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 | Color Coordinate | Color Coordinate | Color Deviation from Black Body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 7209 K | 74.1 | -12.8 | 69.1 | 94.1 | 69.1 | 0.304 | 0.311 | 0.199 | 0.305 | -0.0050 |

Beam Details



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 | 5486 | 1372 | 610 | 343 | 219 | 152 | 112 | 86 | 68 | 55 | 45 | 38 | 32 | 28 | 24 | 21 | 19 | 17 | 15 | 14 |
| fcd | 509.7 | 127.4 | 56.6 | 31.9 | 20.4 | 14.2 | 10.4 | 8 | 6.3 | 5.1 | 4.2 | 3.5 | 3 | 2.6 | 2.3 | 2 | 1.8 | 1.6 | 1.4 | 1.3 |

Intensities in 0° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| 5486 | 5424 | 5250 | 4971 | 4605 | 4178 | 3714 | 3232 | 2764 | 2319 | 1914 | 1554 | 1249 | 991 | 779 | 609 | 472 | 364 | 282 | 216 |
| 100% | 99% | 96% | 91% | 84% | 76% | 68% | 59% | 50% | 42% | 35% | 28% | 23% | 18% | 14% | 11% | 9% | 7% | 5% | 4% |

Intensities in 90° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| 5486 | 5424 | 5250 | 4971 | 4605 | 4178 | 3714 | 3232 | 2764 | 2319 | 1914 | 1554 | 1249 | 991 | 779 | 609 | 472 | 364 | 282 | 216 |
| 100% | 99% | 96% | 91% | 84% | 76% | 68% | 59% | 50% | 42% | 35% | 28% | 23% | 18% | 14% | 11% | 9% | 7% | 5% | 4% |

Intensities in 180° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| 5486 | 5422 | 5245 | 4969 | 4600 | 4174 | 3709 | 3233 | 2764 | 2322 | 1921 | 1564 | 1258 | 1001 | 787 | 614 | 477 | 368 | 285 | 219 |
| 100% | 99% | 96% | 91% | 84% | 76% | 68% | 59% | 50% | 42% | 35% | 28% | 23% | 18% | 14% | 11% | 9% | 7% | 5% | 4% |

Intensities in 270° C-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| 5486 | 5422 | 5245 | 4969 | 4600 | 4174 | 3709 | 3233 | 2764 | 2322 | 1921 | 1564 | 1258 | 1001 | 787 | 614 | 477 | 368 | 285 | 219 |
| 100% | 99% | 96% | 91% | 84% | 76% | 68% | 59% | 50% | 42% | 35% | 28% | 23% | 18% | 14% | 11% | 9% | 7% | 5% | 4% |

| Beam Angle 50% | Field Angle 10% | Cutoff Angle 2,5% | Intensity Ratio in 120° Cone | Intensity Ratio in 90° Cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 32.2° | 61.7° | 83.1° | 99.7% | 97.3% |

