

Light efficiency:

60 Lumen/Watt

Light quality:

CRI: 82.6

Color temperature:

2945 K

Output: 1168 lm

Peak: 2188 cd

Power: 19.4 W

PF: 0.99



Beam angle

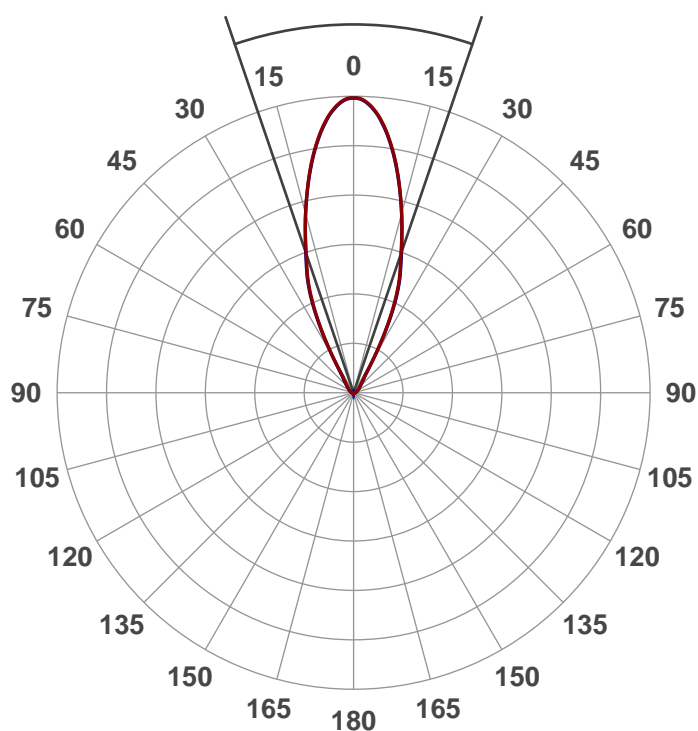
37.6°

Product name:

608-3-XTM19-20LM-30K-83-DA20-CRO

Date and time:

9/29/2016 2:57:03 PM

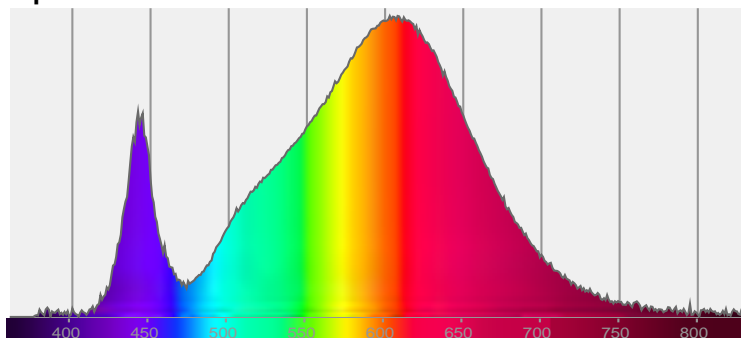


CIE 1931

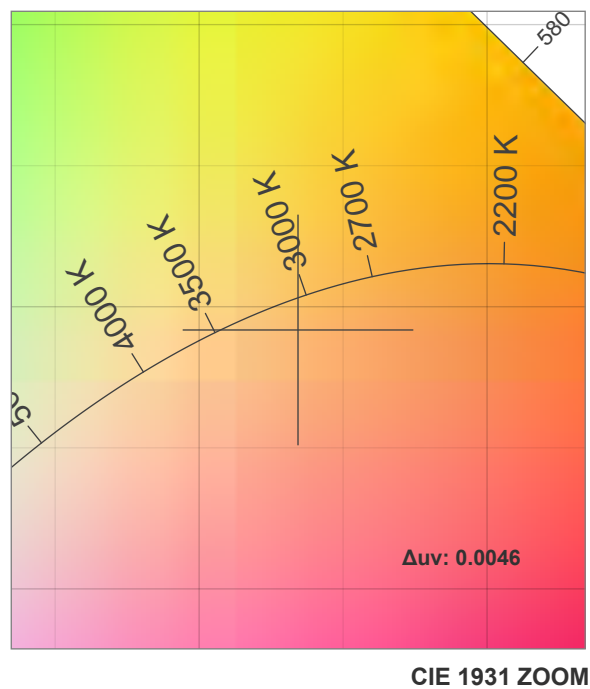
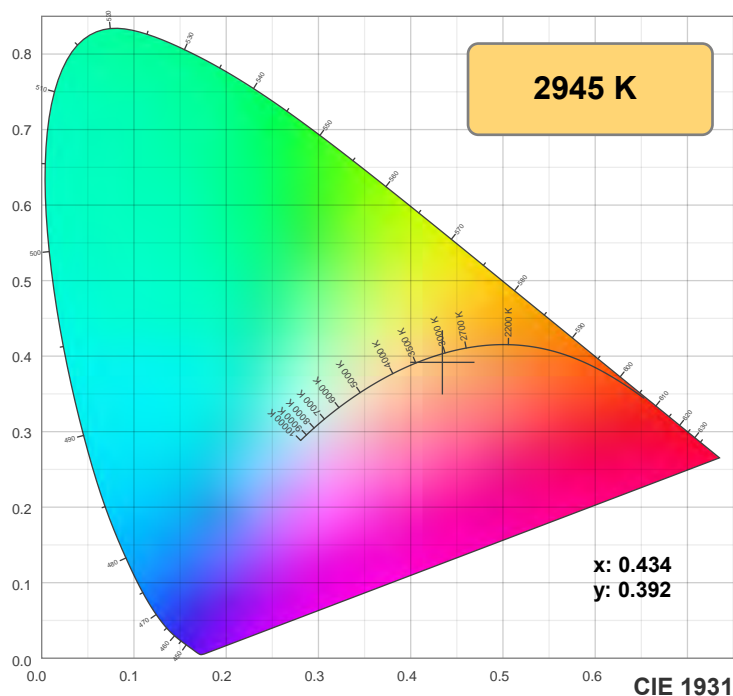
x: 0.434

y: 0.392

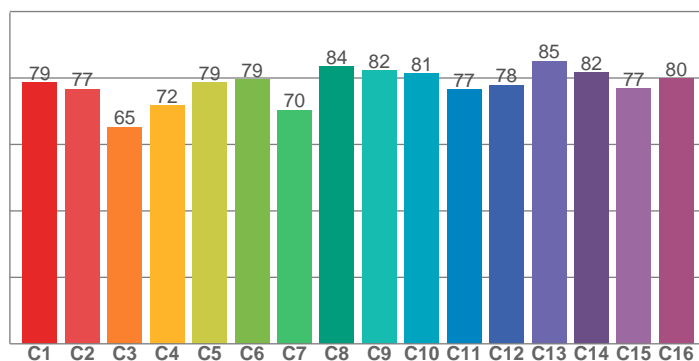
Spectra



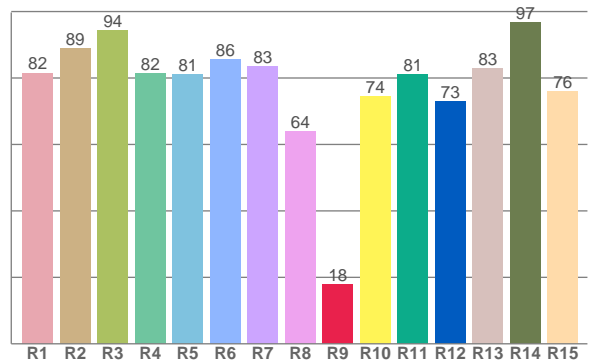
## Color details



**TM30: 77.7**



**CRI: 82.6 (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  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 81.5 | 88.9 | 94.4 | 81.5 | 81.2 | 85.6 | 83.5 | 63.8 | 18.0 | 74.4 | 81.0 | 73.0 | 82.8 | 96.6 | 75.9 |

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  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 78.7 | 76.6 | 65.3 | 71.7 | 78.7 | 79.5 | 70.3 | 83.6 | 82.3 | 81.3 | 76.6 | 77.9 | 85.1 | 81.7 | 76.9 | 79.9 |

## Color parameters

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | 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     | x                         | y                         | u                | v                | Δuv                             |
| 2945 K            | 82.6                  | 18.0          | 77.7           | 101.8       | 0.434                     | 0.392                     | 0.254            | 0.344            | 0.0046                          |

## TM30 details

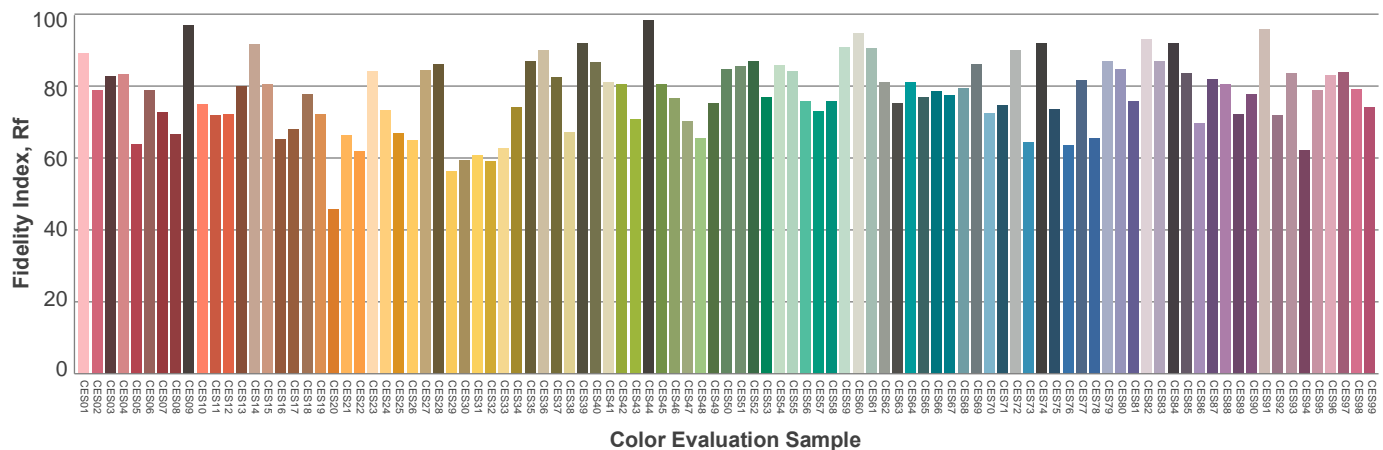
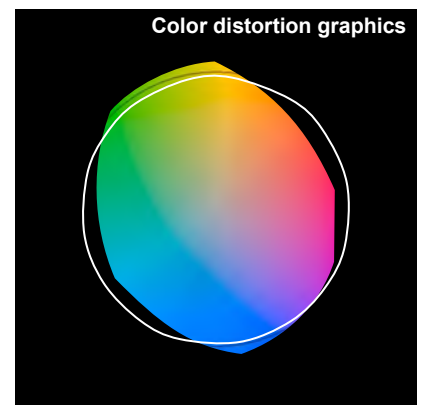
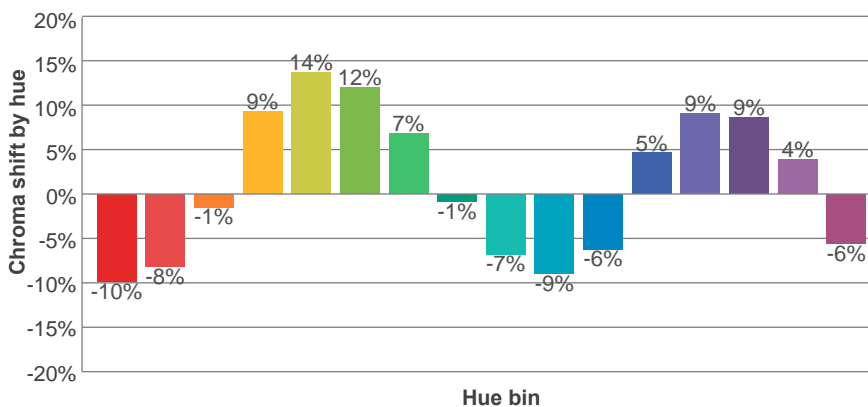
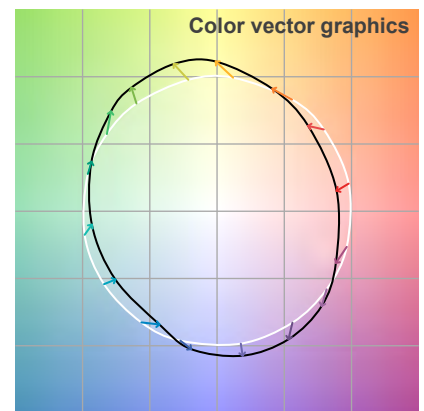
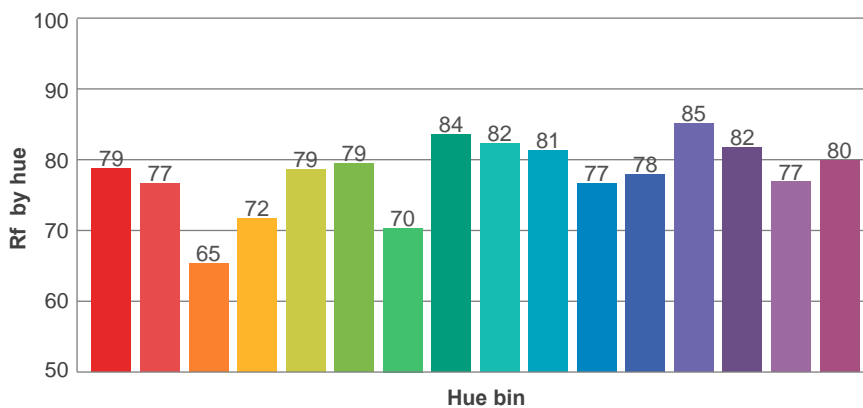
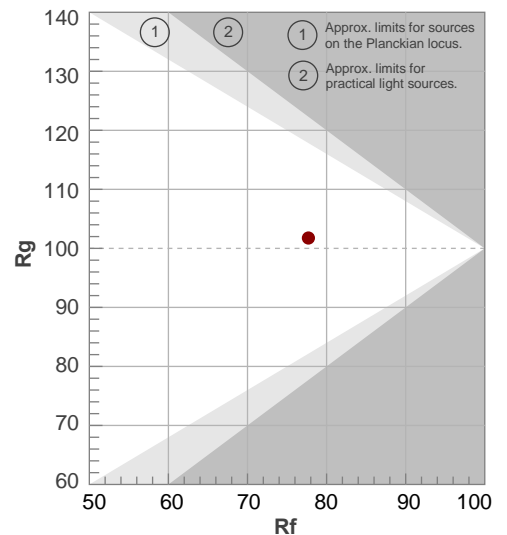
**Rf 77.7**

Fidelity index Rf

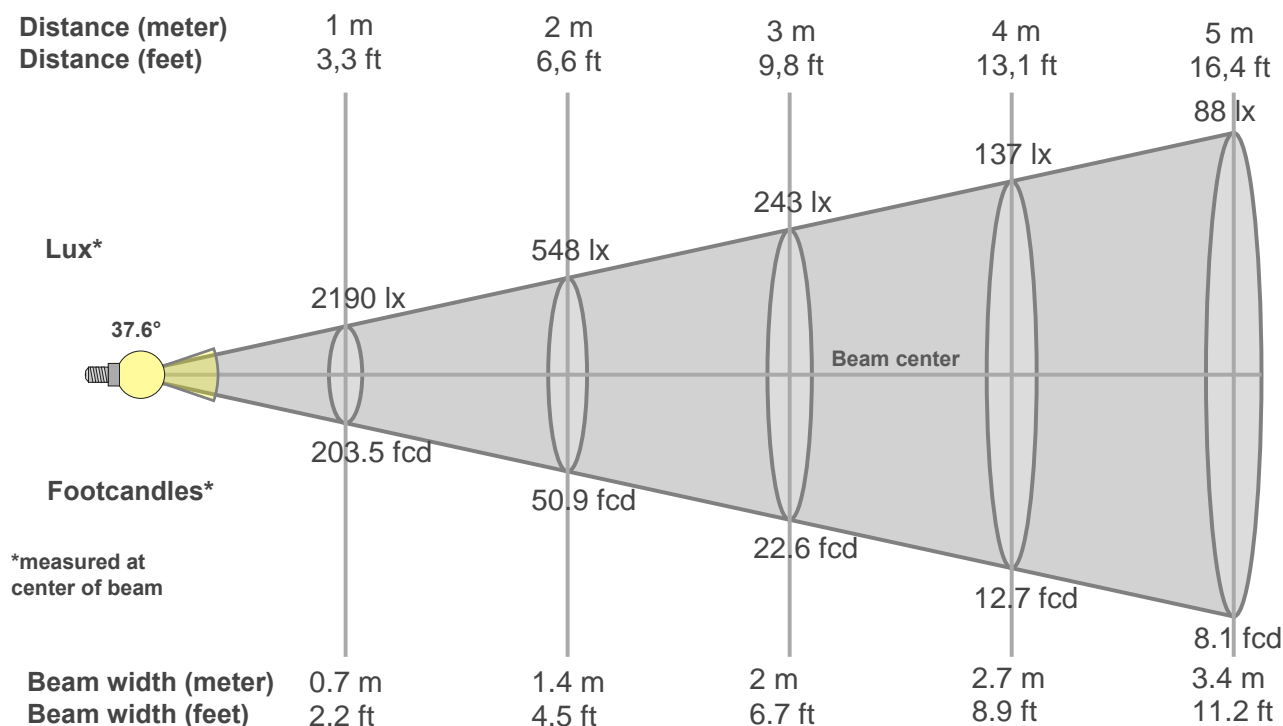
**Rg 101.8**

Gamut index Rg

| Hue Bin | R <sub>f</sub> | Graphic shifts (%) |      |
|---------|----------------|--------------------|------|
|         |                | Chroma             | Hue  |
| 1       | 79             | -10%               | -4%  |
| 2       | 77             | -8%                | 9%   |
| 3       | 65             | -1%                | 17%  |
| 4       | 72             | 9%                 | 15%  |
| 5       | 79             | 14%                | 8%   |
| 6       | 79             | 12%                | -3%  |
| 7       | 70             | 7%                 | -16% |
| 8       | 84             | -1%                | -9%  |
| 9       | 82             | -7%                | -6%  |
| 10      | 81             | -9%                | 2%   |
| 11      | 77             | -6%                | 12%  |
| 12      | 78             | 5%                 | 9%   |
| 13      | 85             | 9%                 | 0%   |
| 14      | 82             | 9%                 | -9%  |
| 15      | 77             | 4%                 | -12% |
| 16      | 80             | -6%                | -13% |



## Beam details



### Beam intensities from 1-20m

| 1m       | 2m      | 3m      | 4m      | 5m     | 6m     | 7m     | 8m     | 9m     | 10m    | 11m    | 12m    | 13m    | 14m    | 15m    | 16m    | 17m    | 18m    | 19m    | 20m    |
|----------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 3.3ft    | 6.6ft   | 9.8ft   | 13.1ft  | 16.4ft | 19.7ft | 23ft   | 26.2ft | 29.5ft | 32.8ft | 36.1ft | 39.4ft | 42.7ft | 45.9ft | 49.2ft | 52.5ft | 55.8ft | 59.1ft | 62.3ft | 65.6ft |
| 2190lx   | 548lx   | 243lx   | 137lx   | 88lx   | 61lx   | 45lx   | 34lx   | 27lx   | 22lx   | 18lx   | 15lx   | 13lx   | 11lx   | 10lx   | 9lx    | 8lx    | 7lx    | 6lx    | 5lx    |
| 203.5fcd | 50.9fcd | 22.6fcd | 12.7fcd | 8.1fcd | 5.7fcd | 4.2fcd | 3.2fcd | 2.5fcd | 2fcd   | 1.7fcd | 1.4fcd | 1.2fcd | 1fcd   | 0.9fcd | 0.8fcd | 0.7fcd | 0.6fcd | 0.6fcd | 0.5fcd |

### 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° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2190 | 2170 | 2111 | 2019 | 1899 | 1762 | 1610 | 1453 | 1299 | 1148 | 1016 | 902 | 765 | 611 | 454 | 312 | 204 | 147 | 122 | 104 |
| 100% | 99%  | 96%  | 92%  | 87%  | 80%  | 74%  | 66%  | 59%  | 52%  | 46%  | 41% | 35% | 28% | 21% | 14% | 9%  | 7%  | 6%  | 5%  |

### 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° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2190 | 2166 | 2106 | 2012 | 1893 | 1756 | 1605 | 1451 | 1300 | 1155 | 1028 | 915 | 783 | 625 | 461 | 315 | 210 | 154 | 129 | 110 |
| 100% | 99%  | 96%  | 92%  | 86%  | 80%  | 73%  | 66%  | 59%  | 53%  | 47%  | 42% | 36% | 29% | 21% | 14% | 10% | 7%  | 6%  | 5%  |

### 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° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2190 | 2170 | 2111 | 2019 | 1899 | 1762 | 1610 | 1453 | 1299 | 1148 | 1016 | 902 | 765 | 611 | 454 | 312 | 204 | 147 | 122 | 104 |
| 100% | 99%  | 96%  | 92%  | 87%  | 80%  | 74%  | 66%  | 59%  | 52%  | 46%  | 41% | 35% | 28% | 21% | 14% | 9%  | 7%  | 6%  | 5%  |

### 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° |
|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2190 | 2166 | 2106 | 2012 | 1893 | 1756 | 1605 | 1451 | 1300 | 1155 | 1028 | 915 | 783 | 625 | 461 | 315 | 210 | 154 | 129 | 110 |
| 100% | 99%  | 96%  | 92%  | 86%  | 80%  | 73%  | 66%  | 59%  | 53%  | 47%  | 42% | 36% | 29% | 21% | 14% | 10% | 7%  | 6%  | 5%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 37.6°          | 63.5°           | 98.4°             | 90.8%                        | 85.4%                       |