

### General Specifications:

Total Fixture Output: 11.6 klm

Light Engine Output: 39.4 klm

Efficacy: 20 Lumen/Watt

Lens Option: N/A

Zoomrange: 12-48°

CRI: 80+

CQS: 80+

TM-30 Rf: 80+

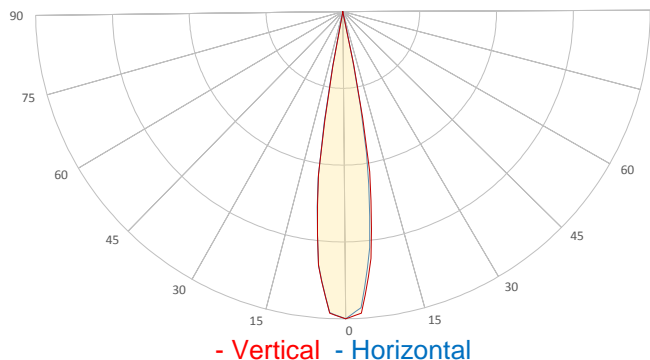
TM-30 Rg: 95+

TLCI: 70+

Color Temperature: 6000 K



## Measurement



Catalog Number: 90234000

Measured Output: 11687 lm

Measured Peak: 149695 cd

Consumed Power: 590 W

Efficacy: 19.8 Lumen/Watt

Beam Angle (50%): 18.2°

Field Angle (10%): 22.9°

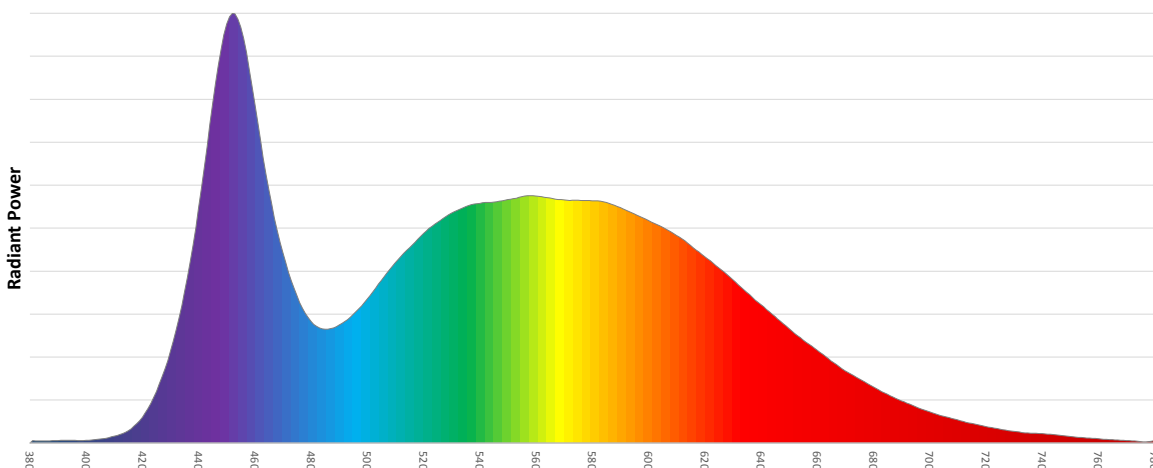
Cutoff Angle (3%): 23.7°

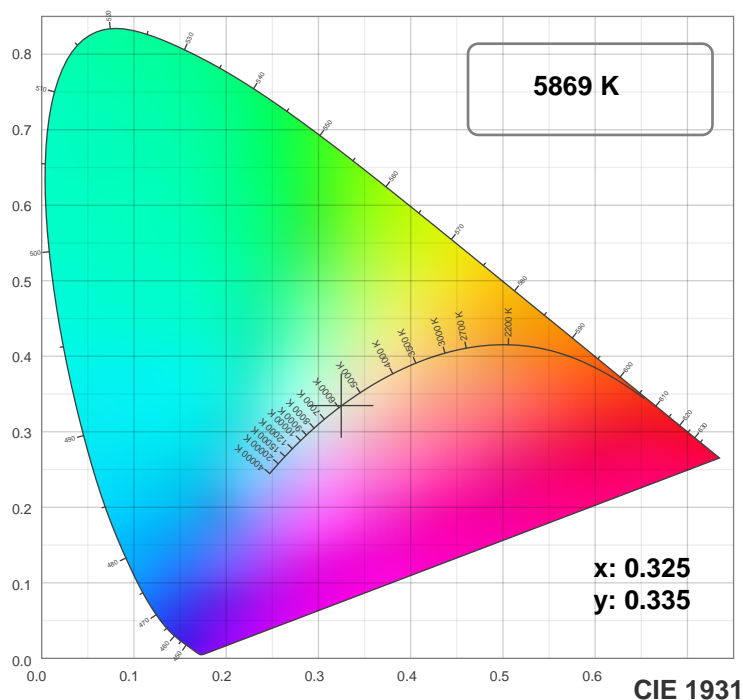
Measurement Condition:

Ambient Temperature: 25 +/- 5C

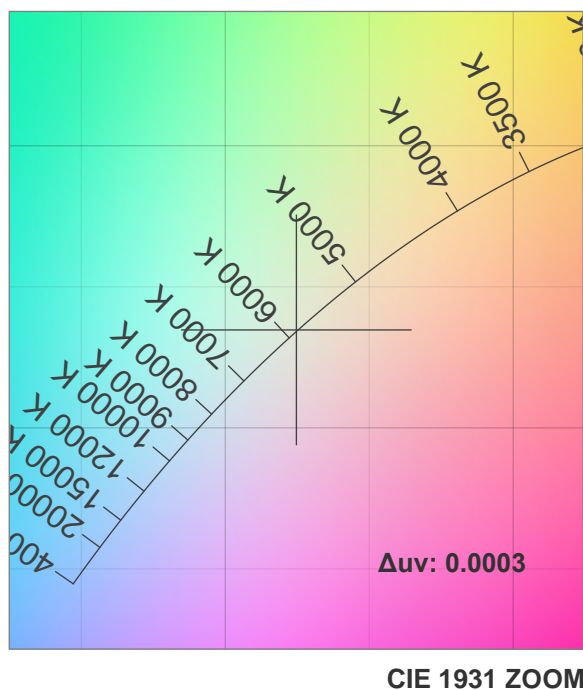
AC Supply: 230V/50Hz

Spectral distribution

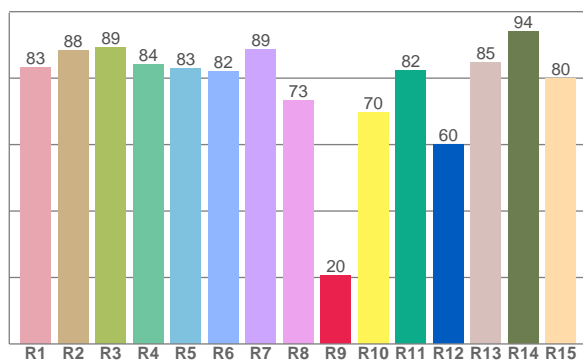
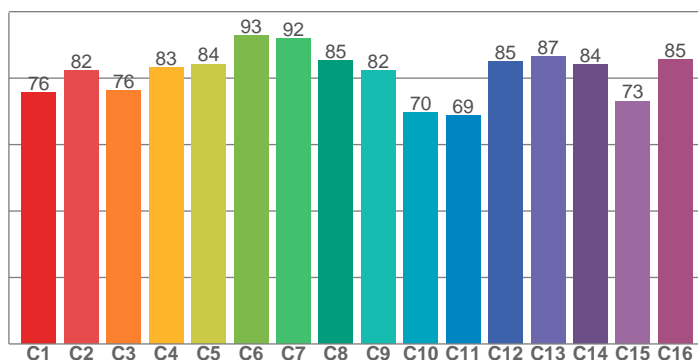




TM30: 81.3



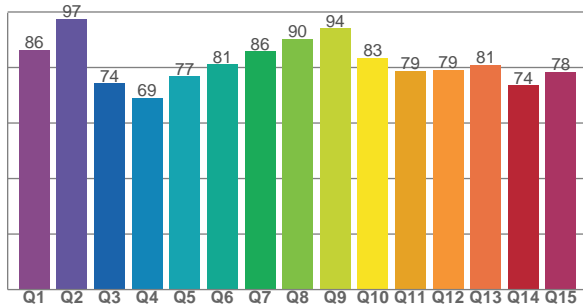
CRI: 84.0 (R1-R8)



### Color Parameters

| Color Temperature | Color Rendering Index | Red Component | Color Fidelity | Color Gamut |
|-------------------|-----------------------|---------------|----------------|-------------|
| CCT               | CRI                   | CRI R9        | TM30 Rf        | TM30 Rg     |
| 5869 K            | 84.0                  | 20.5          | 81.3           | 96.2        |

CQS: 80.4



| Television Lighting Consistency Index | Color Quality Scale | Color Coordinate CIE 1931 | Color Coordinate CIE 1931 | Color Coordinate CIE 1964 | Color Coordinate CIE 1964 | Color Diviation from Black Body |
|---------------------------------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| TLCI                                  | CQS                 | x                         | y                         | u                         | v                         | Δuv                             |
| 70+                                   | 80.4                | 0.325                     | 0.335                     | 0.204                     | 0.315                     | 0.0003                          |

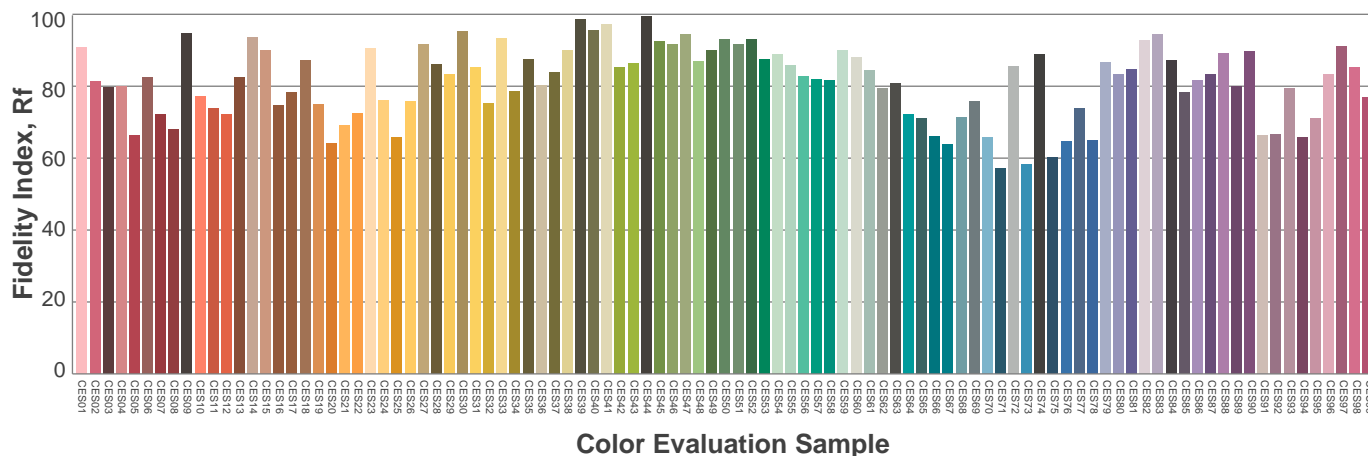
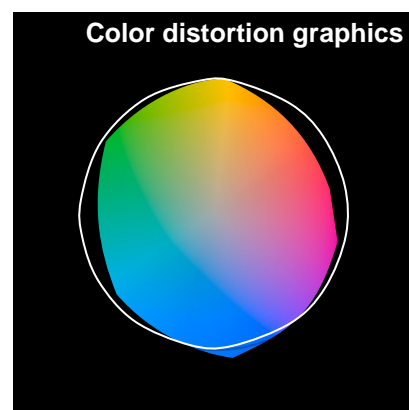
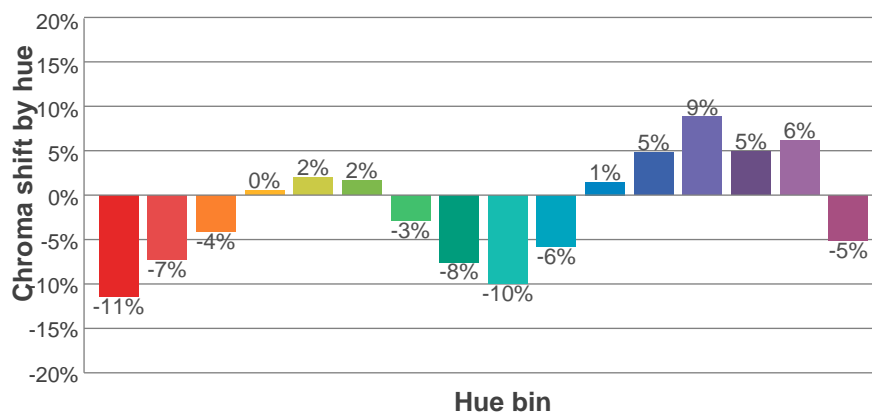
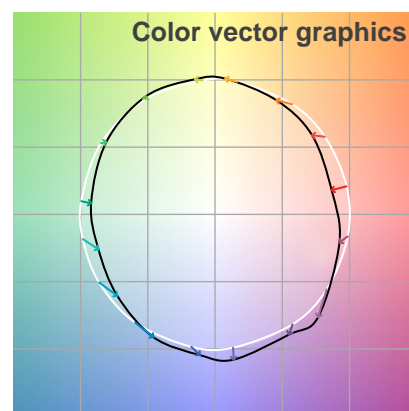
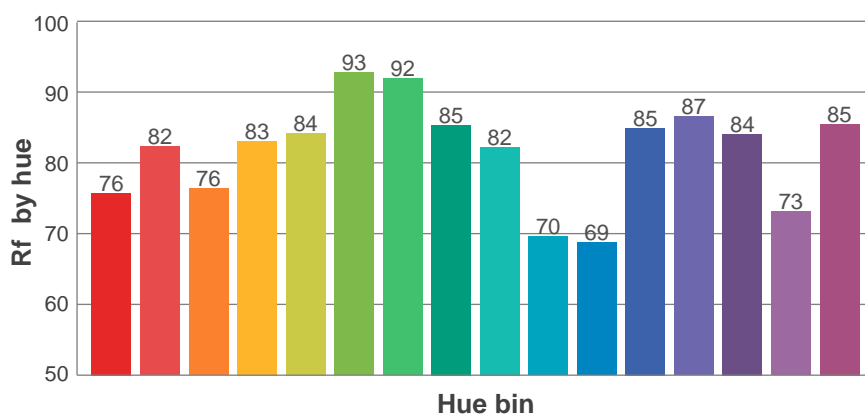
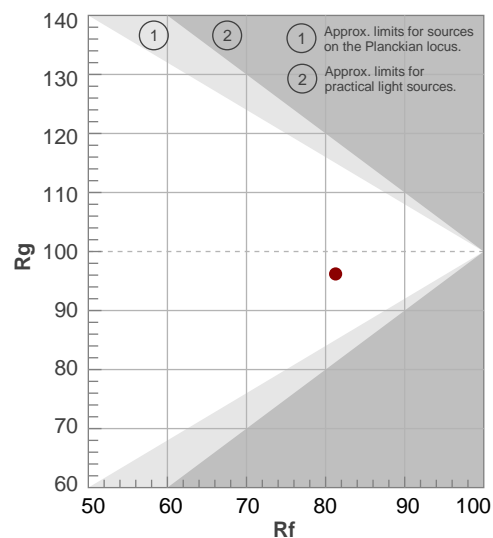
**Rf 81.3**

Fidelity index Rf

**Rg 96.2**

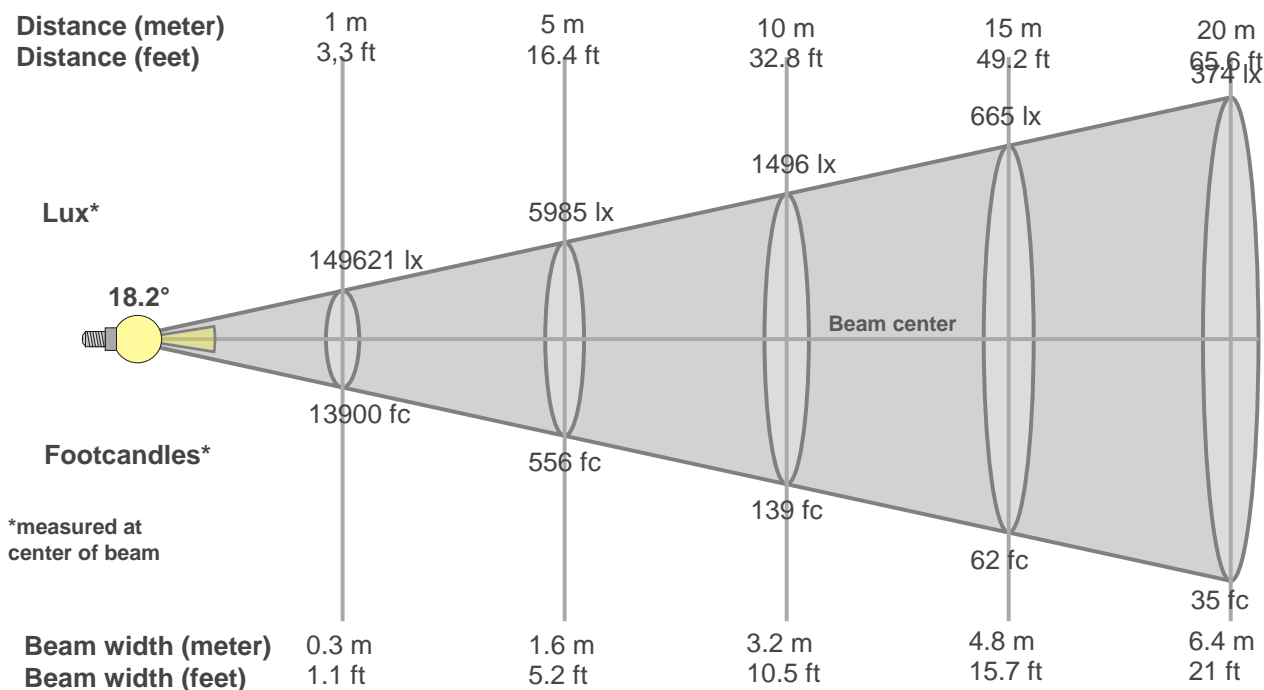
Gamut index Rg

| Hue Bin | R <sub>f</sub> | Graphic shifts (%) |      |
|---------|----------------|--------------------|------|
|         |                | Chroma             | Hue  |
| 1       | 76             | -11%               | -1%  |
| 2       | 82             | -7%                | 6%   |
| 3       | 76             | -4%                | 11%  |
| 4       | 83             | 0%                 | 9%   |
| 5       | 84             | 2%                 | 5%   |
| 6       | 93             | 2%                 | -1%  |
| 7       | 92             | -3%                | -3%  |
| 8       | 85             | -8%                | 0%   |
| 9       | 82             | -10%               | 10%  |
| 10      | 70             | -6%                | 16%  |
| 11      | 69             | 1%                 | 17%  |
| 12      | 85             | 5%                 | 7%   |
| 13      | 87             | 9%                 | -1%  |
| 14      | 84             | 5%                 | -6%  |
| 15      | 73             | 6%                 | -21% |
| 16      | 85             | -5%                | -6%  |



# Beam Details

## MAC Encore Performance CLD – Medium



Beam width:

Beam luminous intensity formula:

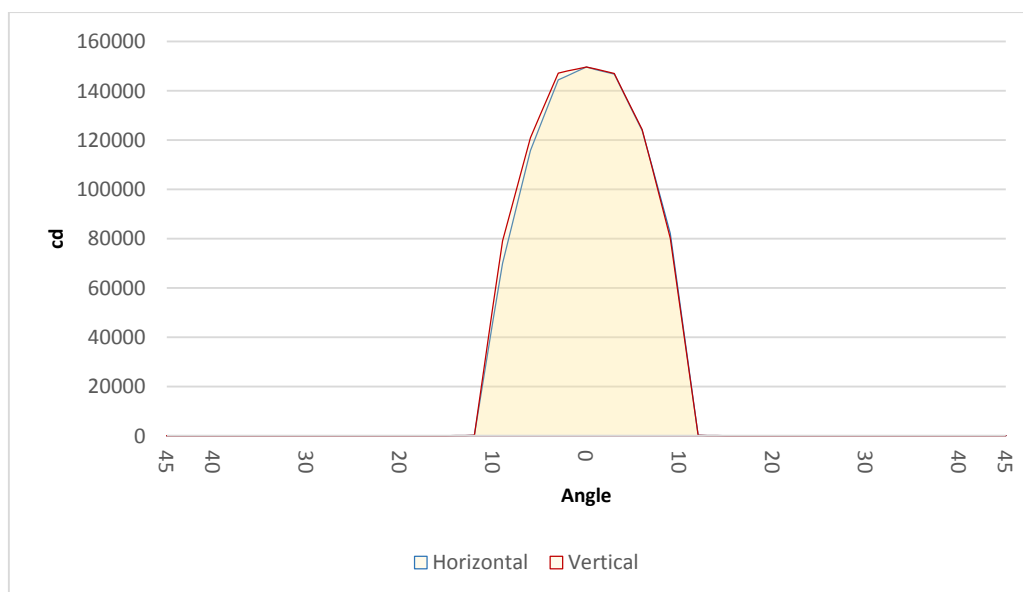
$$w = 0.3 * \text{distance}$$

$$\text{lux} = 149621 / (\text{distance}^2) \text{ (where distance is in meters)}$$

$$\text{fc} = 149621 / (\text{distance}^2) \text{ (where distance is in feet)}$$

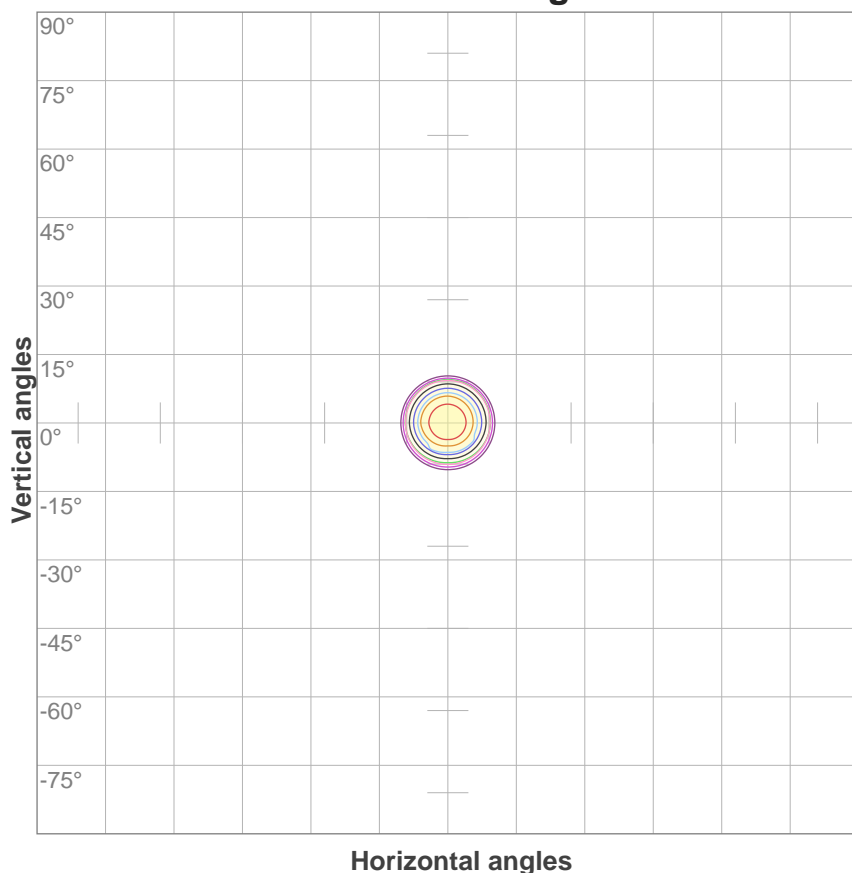
### Beam illuminance from 1-20m

| 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 |
| 149621lx  | 37405lx  | 16625lx  | 9351lx  | 5985lx | 4156lx  | 3053lx  | 2338lx  | 1847lx  | 1496lx | 1237lx  | 1039lx | 885lx  | 763lx  | 665lx  | 584lx  | 518lx  | 462lx  | 414lx  | 374lx  |
| 13900.3fc | 3475.1fc | 1544.5fc | 868.8fc | 556fc  | 386.1fc | 283.7fc | 217.2fc | 171.6fc | 139fc  | 114.9fc | 96.5fc | 82.3fc | 70.9fc | 61.8fc | 54.3fc | 48.1fc | 42.9fc | 38.5fc | 34.8fc |



| Beam angle 50% | Field angle 10% | Cutoff angle 3% |
|----------------|-----------------|-----------------|
| 18.2°          | 22.9°           | 23.7°           |

### ISO candela diagram



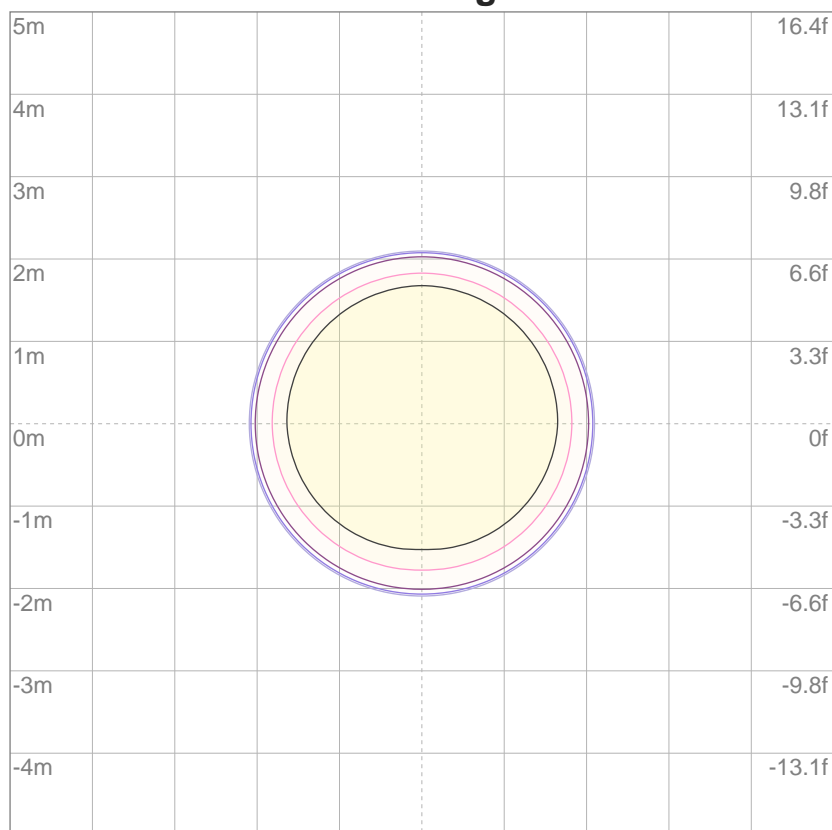
|     |           |
|-----|-----------|
| 10% | 14962 cd  |
| 20% | 29924 cd  |
| 30% | 44886 cd  |
| 40% | 59849 cd  |
| 50% | 74811 cd  |
| 60% | 89773 cd  |
| 70% | 104735 cd |
| 80% | 119697 cd |
| 90% | 134659 cd |

#### Conditions:

Number of c-planes: 4

Candela at center: 149621 cd

### ISO lux diagram



|     |         |
|-----|---------|
| 3%  | 44.9 lx |
| 5%  | 74.8 lx |
| 10% | 150 lx  |
| 30% | 449 lx  |
| 50% | 748 lx  |

#### Conditions:

Number of c-planes: 4

Lux at center: 1496 lx

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

Throw Distance: 10 meters (33 feet)