

## LuxEOS Beam 20 VIVID COLOUR

ULTRA NARROW LED BEAM FOR ARCHITECTURAL LIGHTING



### LuxEOS BEAM 20 RGBA (1700K) 3° 3x60°

Tested By  
DW Windsor Group Laboratory  
Hoddesdon  
UK

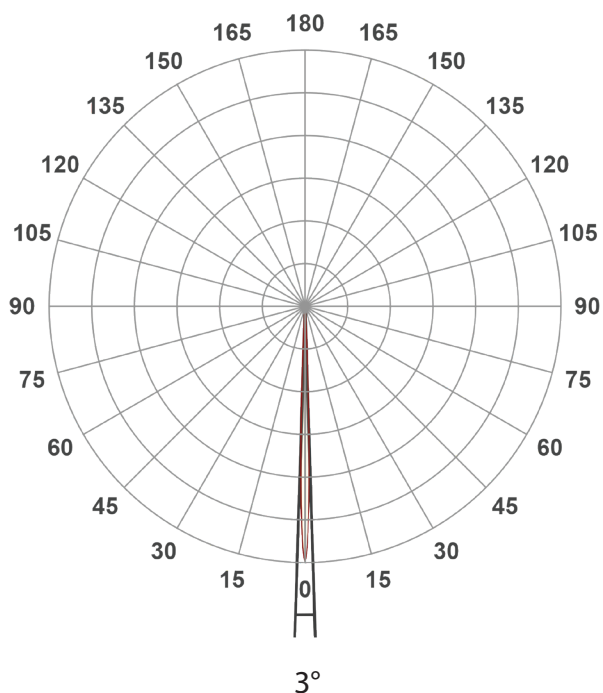
Date  
Nov 2020

Dimensions  
350mm (H) x 255mm (W) x 150mm (D) (including yoke)

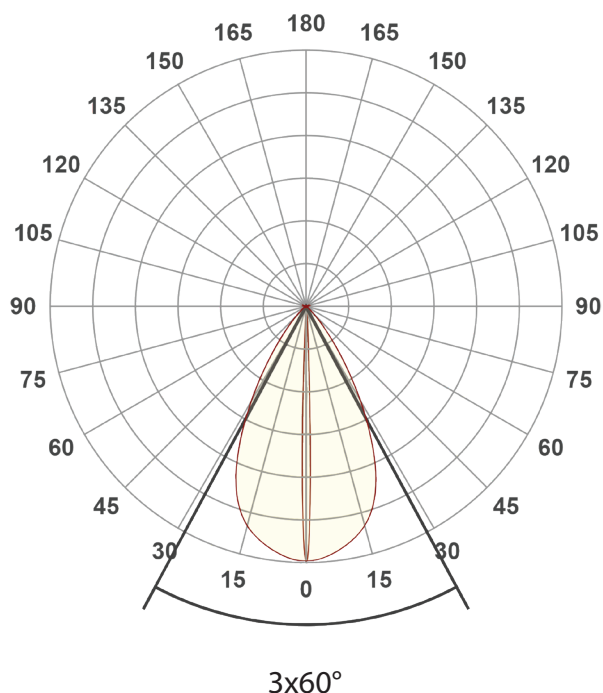
Weight  
7.3kgs (16.0lbs)

### Polar Distribution

3° Conical Beam (Native)

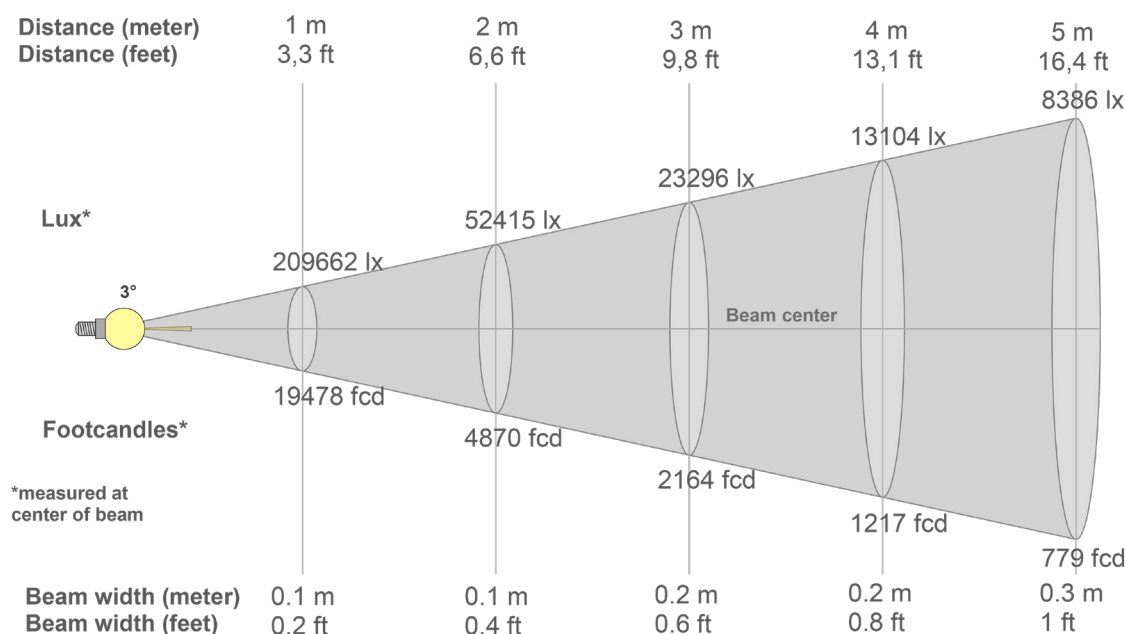


3x60° Elliptical Beam (With HBS)



## LuxEOS Beam 20 - RGBA (1700K)

Intensities at Distance with native 3° Optics



### 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 |
| 209662lx  | 52415lx  | 23296lx  | 13104lx  | 8386lx  | 5824lx  | 4279lx  | 3276lx  | 2588lx  | 2097lx  | 1733lx | 1456lx  | 1241lx  | 1070lx | 932lx  | 819lx  | 725lx  | 647lx  | 581lx  | 524lx  |
| 19478.2fc | 4869.6fc | 2164.2fc | 1217.4fc | 779.1fc | 541.1fc | 397.5fc | 304.3fc | 240.5fc | 194.8fc | 161fc  | 135.3fc | 115.3fc | 99.4fc | 86.6fc | 76.1fc | 67.4fc | 60.1fc | 54fc   | 48.7fc |

### Intensities in 0° c-plane

| 0°   | 1°   | 2°  | 3°  | 4° | 5° | 6° | 7° | 8° | 9° | 10° | 11° | 12° | 13° | 14° | 15° | 16° | 17° | 18° | 19° |
|------|------|-----|-----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 210K | 171K | 85K | 28K | 9K | 4K | 2K | 2K | 1K | 1K | 1K  | 1K  | 1K  | 1K  | 1K  | 1K  | 0K  | 0K  | 0K  | 0K  |
| 100% | 81%  | 41% | 13% | 4% | 2% | 1% | 1% | 1% | 1% | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  |

### Intensities in 90° c-plane

| 0°   | 1°   | 2°  | 3°  | 4° | 5° | 6° | 7° | 8° | 9° | 10° | 11° | 12° | 13° | 14° | 15° | 16° | 17° | 18° | 19° |
|------|------|-----|-----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 210K | 171K | 85K | 28K | 9K | 4K | 2K | 2K | 1K | 1K | 1K  | 1K  | 1K  | 1K  | 1K  | 1K  | 0K  | 0K  | 0K  | 0K  |
| 100% | 81%  | 41% | 13% | 4% | 2% | 1% | 1% | 1% | 1% | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  |

### Intensities in 180° c-plane

| 0°   | 1°   | 2°  | 3°  | 4° | 5° | 6° | 7° | 8° | 9° | 10° | 11° | 12° | 13° | 14° | 15° | 16° | 17° | 18° | 19° |
|------|------|-----|-----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 210K | 171K | 85K | 28K | 9K | 4K | 2K | 2K | 1K | 1K | 1K  | 1K  | 1K  | 1K  | 1K  | 1K  | 0K  | 0K  | 0K  | 0K  |
| 100% | 81%  | 41% | 13% | 4% | 2% | 1% | 1% | 1% | 1% | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  |

### Intensities in 270° c-plane

| 0°   | 1°   | 2°  | 3°  | 4° | 5° | 6° | 7° | 8° | 9° | 10° | 11° | 12° | 13° | 14° | 15° | 16° | 17° | 18° | 19° |
|------|------|-----|-----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 210K | 171K | 85K | 28K | 9K | 4K | 2K | 2K | 1K | 1K | 1K  | 1K  | 1K  | 1K  | 1K  | 1K  | 0K  | 0K  | 0K  | 0K  |
| 100% | 81%  | 41% | 13% | 4% | 2% | 1% | 1% | 1% | 1% | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  |

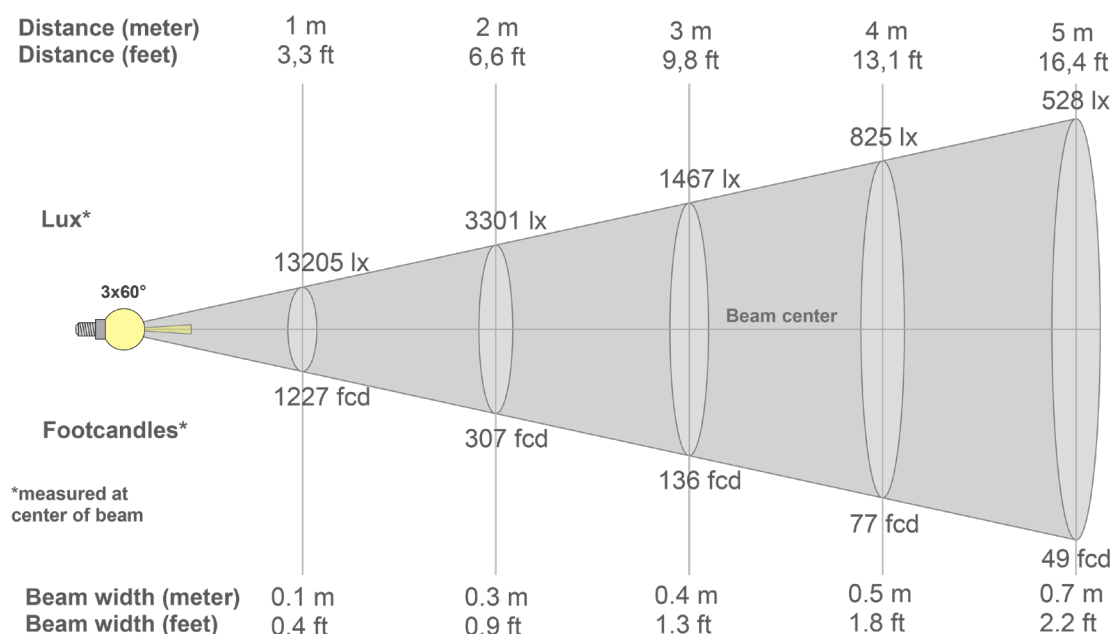
| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 3.5°           | 6.5°            | 9.1°              | 94.7%                        | 92.4%                       |

### DW Windsor

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## LuxEOS Beam 20 - RGBA (1700K)

Intensities at Distance with 3x60° Optics



### 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 |
| 13205lx  | 3301lx  | 1467lx  | 825lx  | 528lx  | 367lx  | 269lx | 206lx  | 163lx  | 132lx  | 109lx  | 92lx   | 78lx   | 67lx   | 59lx   | 52lx   | 46lx   | 41lx   | 37lx   | 33lx   |
| 1226.8fc | 306.7fc | 136.3fc | 76.7fc | 49.1fc | 34.1fc | 25fc  | 19.2fc | 15.1fc | 12.3fc | 10.1fc | 8.5fc  | 7.3fc  | 6.3fc  | 5.5fc  | 4.8fc  | 4.2fc  | 3.8fc  | 3.4fc  | 3.1fc  |

### Intensities in 0° c-plane

| 0°    | 1°    | 2°   | 3°   | 4°   | 5°   | 6°   | 7°   | 8°   | 9°   | 10°  | 11°  | 12°  | 13°  | 14°  | 15°  | 16°  | 17°  | 18°  | 19°  |
|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 13.2K | 11.8K | 7.8K | 4.2K | 2.2K | 1.3K | 0.9K | 0.7K | 0.6K | 0.5K | 0.4K | 0.3K | 0.3K | 0.3K | 0.2K | 0.2K | 0.2K | 0.2K | 0.2K | 0.1K |
| 100%  | 90%   | 59%  | 32%  | 16%  | 10%  | 7%   | 5%   | 4%   | 4%   | 3%   | 3%   | 2%   | 2%   | 2%   | 2%   | 1%   | 1%   | 1%   | 1%   |

### Intensities in 90° c-plane

| 0°    | 1°    | 2°    | 3°    | 4°    | 5°    | 6°    | 7°    | 8°    | 9°    | 10°   | 11°   | 12°   | 13°   | 14°   | 15°   | 16°   | 17°  | 18°  | 19°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| 13.2K | 13.3K | 13.3K | 13.2K | 13.0K | 12.9K | 12.8K | 12.6K | 12.4K | 12.2K | 11.9K | 11.7K | 11.4K | 11.1K | 10.7K | 10.4K | 10.0K | 9.6K | 9.2K | 8.8K |
| 100%  | 101%  | 100%  | 100%  | 99%   | 98%   | 97%   | 95%   | 94%   | 92%   | 90%   | 88%   | 86%   | 84%   | 81%   | 79%   | 76%   | 73%  | 70%  | 66%  |

### Intensities in 180° c-plane

| 0°    | 1°    | 2°   | 3°   | 4°   | 5°   | 6°   | 7°   | 8°   | 9°   | 10°  | 11°  | 12°  | 13°  | 14°  | 15°  | 16°  | 17°  | 18°  | 19°  |
|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 13.2K | 11.8K | 7.8K | 4.2K | 2.2K | 1.3K | 0.9K | 0.7K | 0.6K | 0.5K | 0.4K | 0.3K | 0.3K | 0.3K | 0.2K | 0.2K | 0.2K | 0.2K | 0.2K | 0.1K |
| 100%  | 90%   | 59%  | 32%  | 16%  | 10%  | 7%   | 5%   | 4%   | 4%   | 3%   | 3%   | 2%   | 2%   | 2%   | 2%   | 1%   | 1%   | 1%   | 1%   |

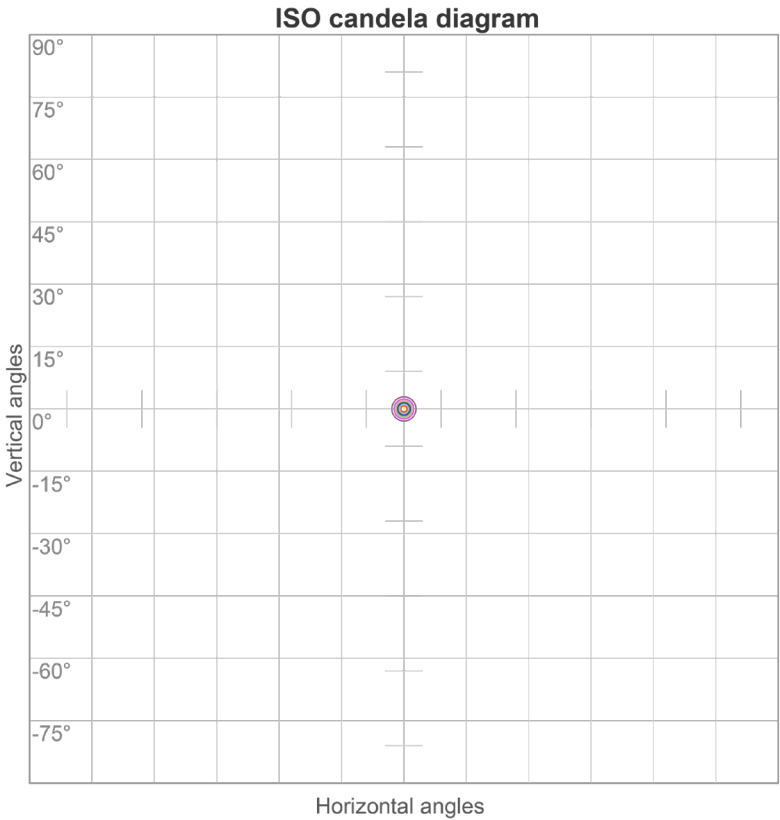
### Intensities in 270° c-plane

| 0°    | 1°    | 2°    | 3°    | 4°    | 5°    | 6°    | 7°    | 8°    | 9°    | 10°   | 11°   | 12°   | 13°   | 14°   | 15°   | 16°   | 17°  | 18°  | 19°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| 13.2K | 13.3K | 13.3K | 13.2K | 13.0K | 12.9K | 12.8K | 12.6K | 12.4K | 12.2K | 11.9K | 11.7K | 11.4K | 11.1K | 10.7K | 10.4K | 10.0K | 9.6K | 9.2K | 8.8K |
| 100%  | 101%  | 100%  | 100%  | 99%   | 98%   | 97%   | 95%   | 94%   | 92%   | 90%   | 88%   | 86%   | 84%   | 81%   | 79%   | 76%   | 73%  | 70%  | 66%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 7.8°           | 15.1°           | 28.5°             | 97.4%                        | 93.7%                       |

### DW Windsor

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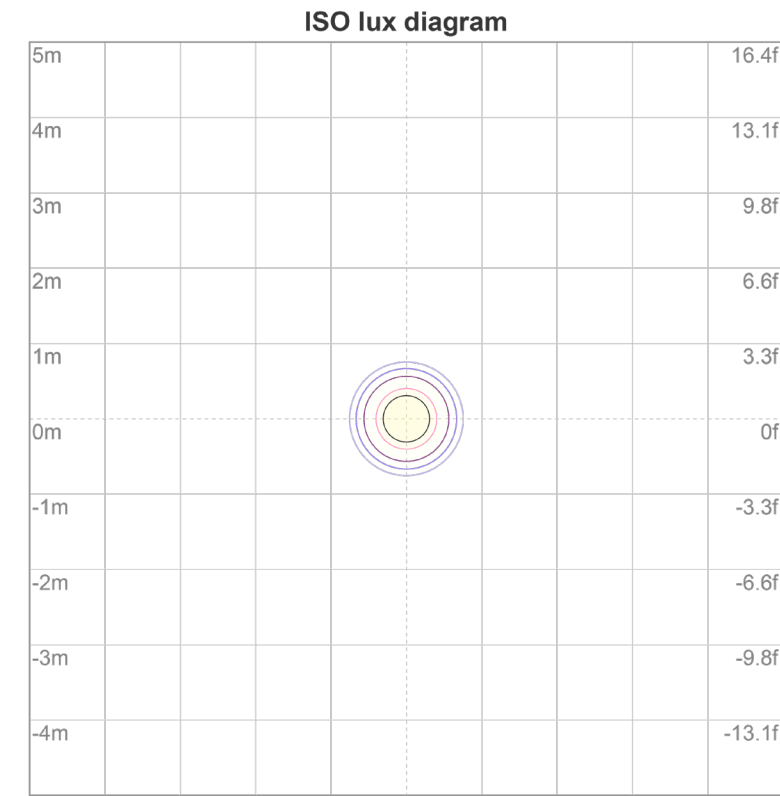


|     |           |
|-----|-----------|
| 10% | 20966 cd  |
| 20% | 41932 cd  |
| 30% | 62899 cd  |
| 40% | 83865 cd  |
| 50% | 104831 cd |
| 60% | 125797 cd |
| 70% | 146763 cd |
| 80% | 167730 cd |
| 90% | 188696 cd |

Conditions:

Number of c-planes: 72

Candela at center: 209662 cd



|     |         |
|-----|---------|
| 3%  | 62.9 lx |
| 5%  | 105 lx  |
| 10% | 210 lx  |
| 30% | 629 lx  |
| 50% | 1048 lx |

Conditions:

Number of c-planes: 72

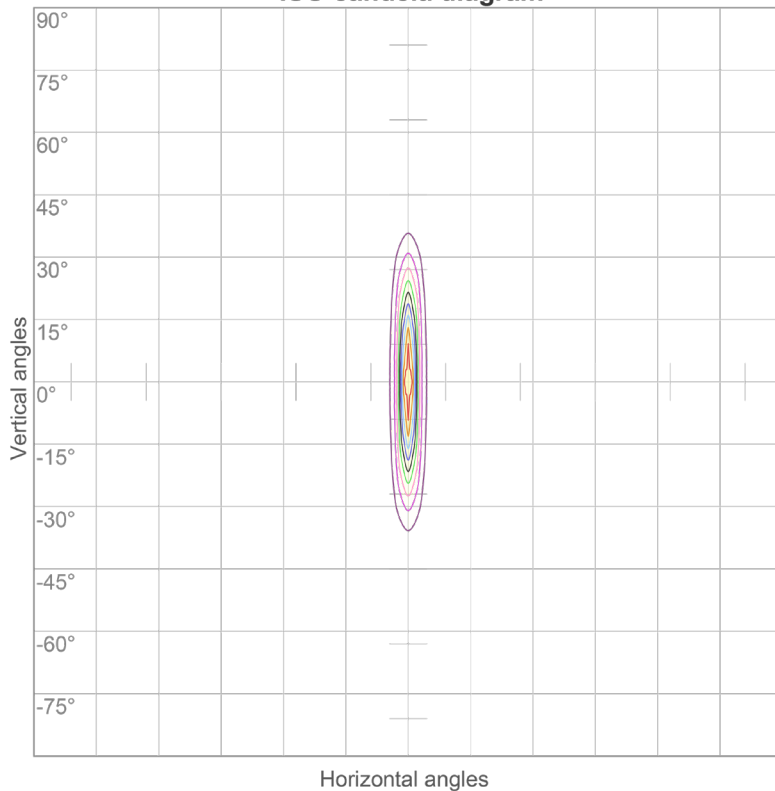
Lux at center: 2097 lx

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





#### ISO candela diagram



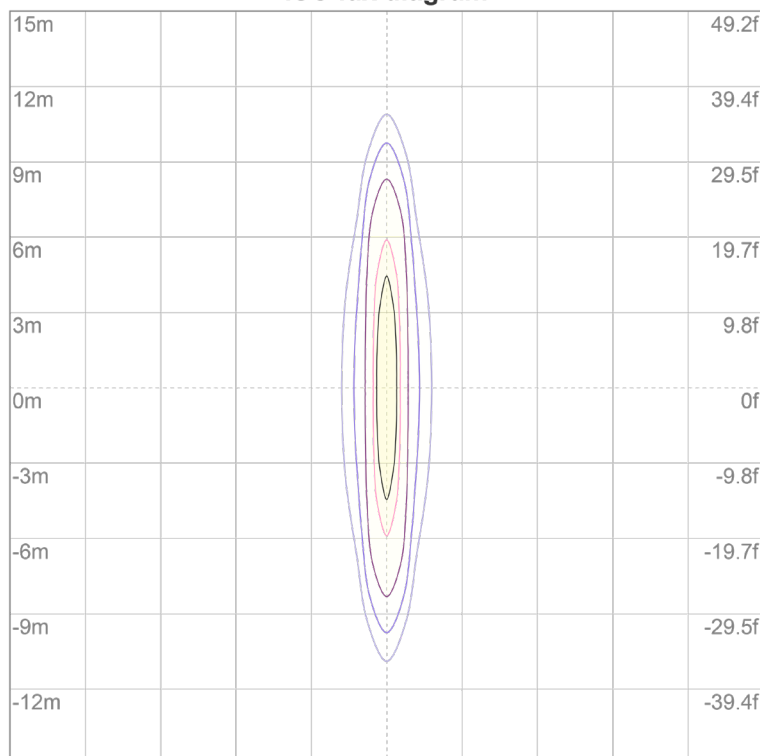
|     |          |
|-----|----------|
| 10% | 1321 cd  |
| 20% | 2641 cd  |
| 30% | 3962 cd  |
| 40% | 5282 cd  |
| 50% | 6603 cd  |
| 60% | 7923 cd  |
| 70% | 9244 cd  |
| 80% | 10564 cd |
| 90% | 11885 cd |

#### Conditions:

Number of c-planes: 72

Candela at center: 13205 cd

#### ISO lux diagram



|     |         |
|-----|---------|
| 3%  | 3.96 lx |
| 5%  | 6.60 lx |
| 10% | 13.2 lx |
| 30% | 39.6 lx |
| 50% | 66.0 lx |

#### Conditions:

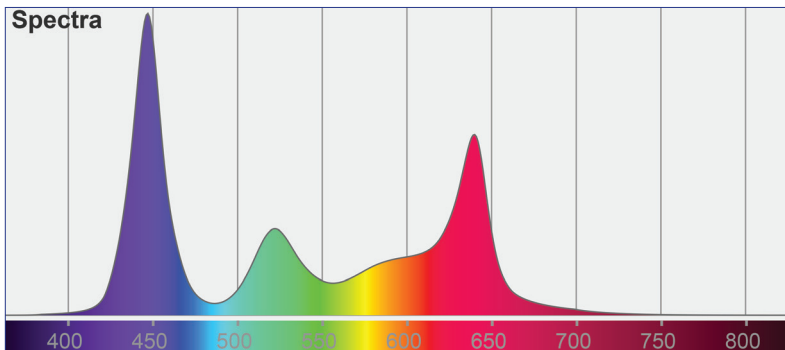
Number of c-planes: 72

Lux at center: 132 lx

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

## LuxEOS Beam 20 - RGBA (1700K)

Colormetrics **RGBA**



Total Lumen Output (Native) : 1413 lm

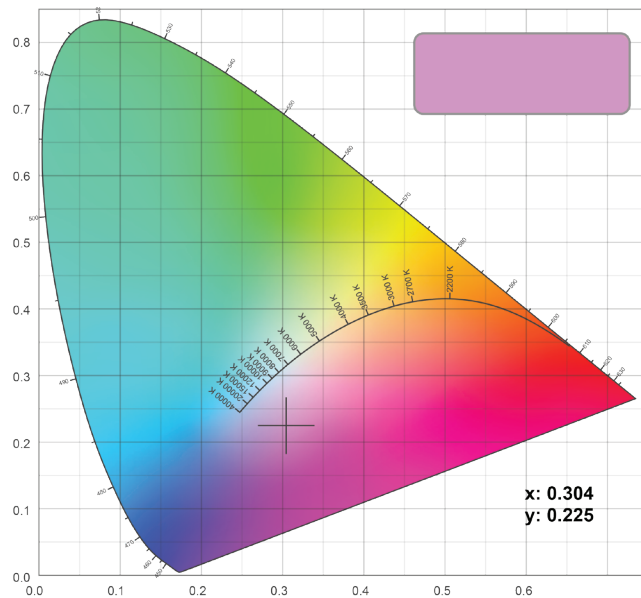
Efficacy : 32 lm/W

Voltage : 240V

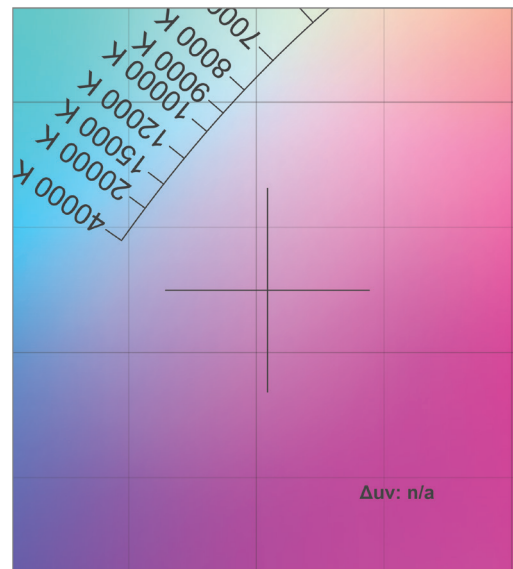
Supply Power : 45W

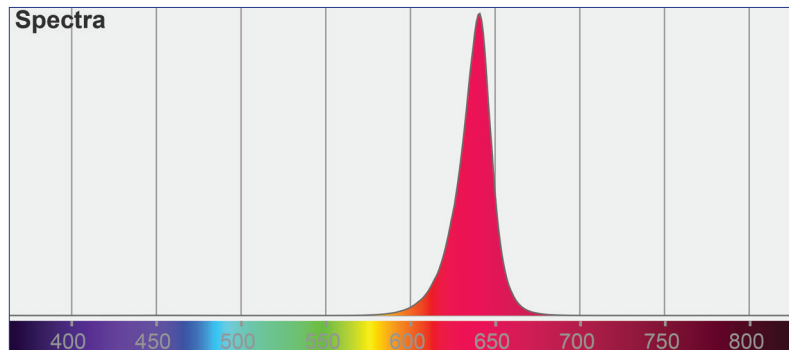
Supply Power Factor : 0.97

### CIE 1931



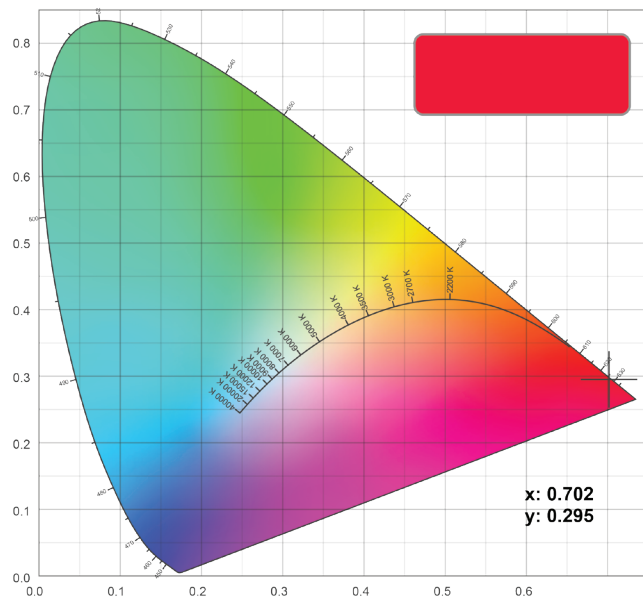
### CIE 1931 Zoom



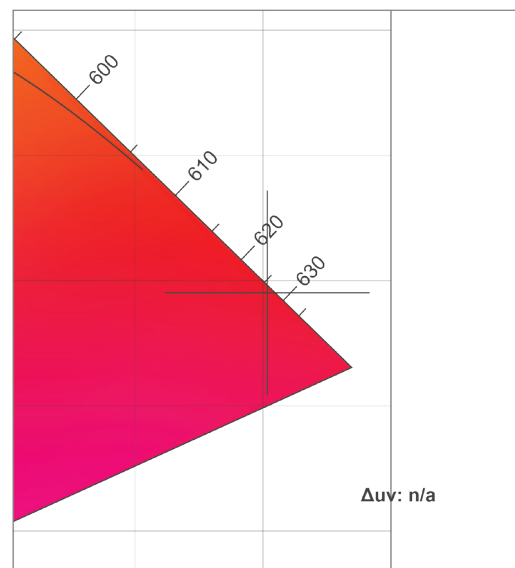


Red Lumen Output : 245 lm

CIE 1931

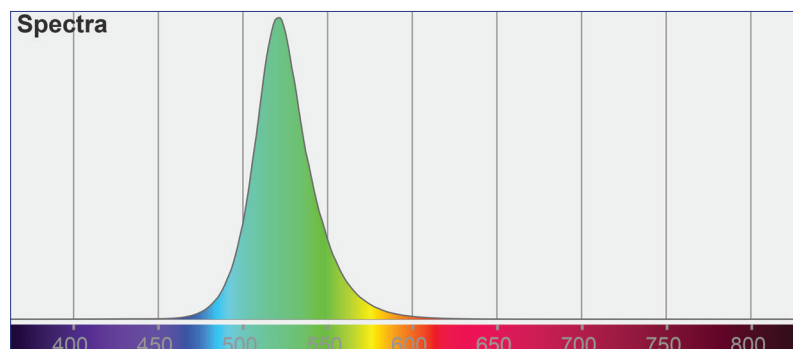


CIE 1931 Zoom



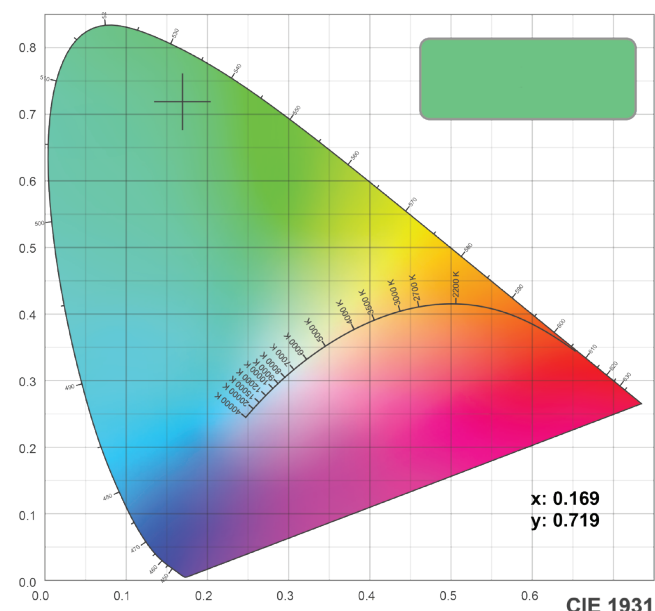
LuxEOS Beam 20 - RGBA (1700K)

Colormetrics **GREEN**

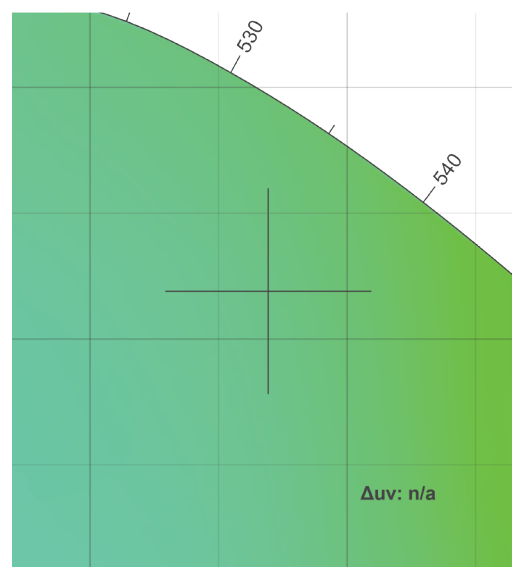


Green Lumen Output : 736 lm

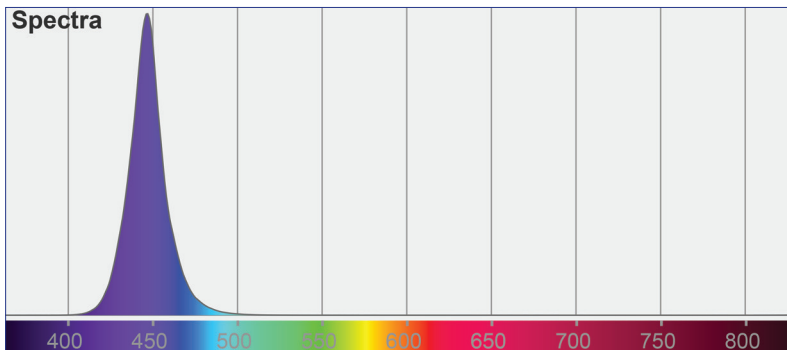
CIE 1931



CIE 1931 Zoom

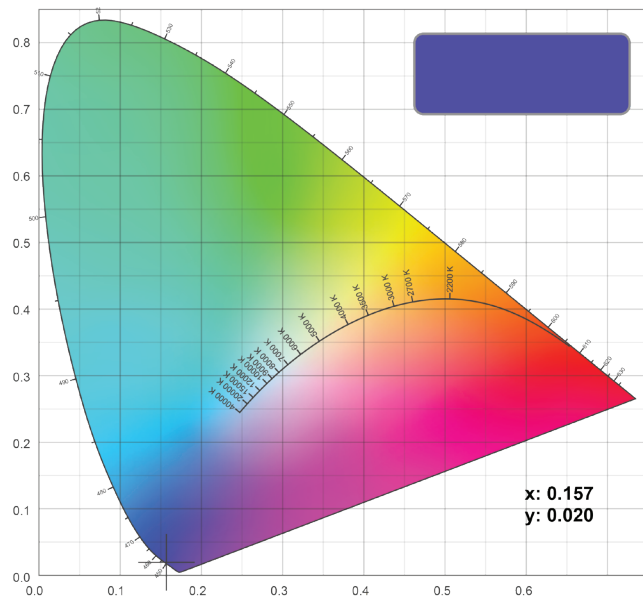


## LuxEOS Beam 20 - RGBA (1700K) Colormetrics **BLUE**

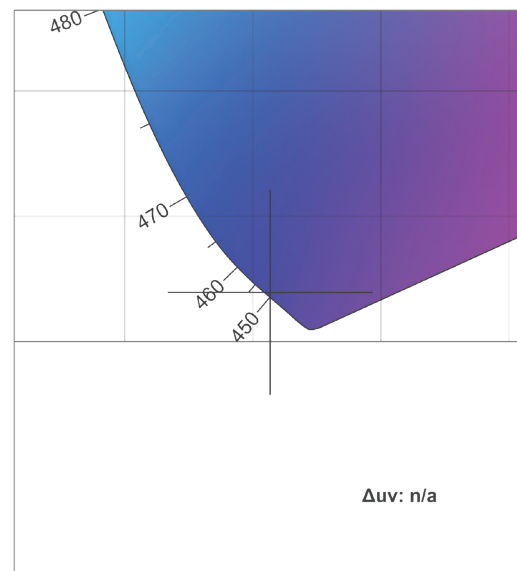


Blue Lumen Output : 100 lm

CIE 1931



CIE 1931 Zoom



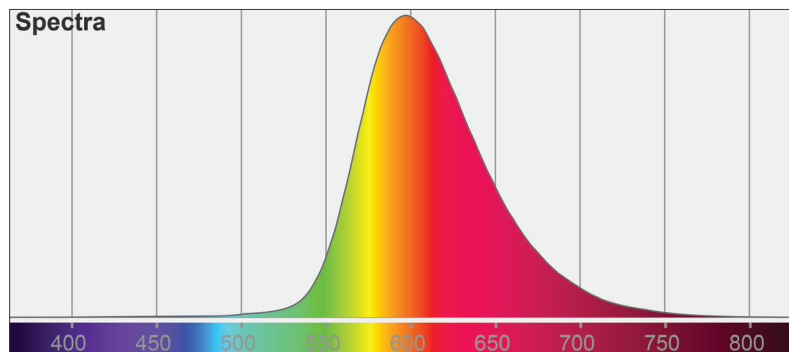
# PULSAR

LuxEOS Beam 20 - RGBA (1700K)

Colormetrics **AMBER 1700K**



PHOTOMETRIC DATA



Amber 1700K Lumen Output : 609 lm

CIE 1931

