

Photometric Test Report



EclDisplay UNFC

PROFILE LENS 18°

40W RGB+WW LED gallery light, Tunable White
and Full Colour with universal control
(DMX, Dali T8, knob-dimming, phase-cut
dimming)

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TESTING PROCESS

Prolights has its own optical testing laboratory in order to provide accurate photometric reports for its lighting products. The testing laboratory contains certain variety of precise lighting measurement systems that ensure an optimal reading of all the characteristic parameters of the lighting devices. All measurements are made at a controlled room temperature of 20°C without any external light sources. This photometric report is obtained through the data measured by a high precision measurement system and analyzed by a dedicate software.

Prolights measurement instrument

Prolights measurement instrument is a complete measurement system for any light source. It's equipped with two-axis goniometer, that enables to measure the full 3D distribution field of the light source. This instrument measures the light intensity, the beam angle and the most significative colors parameters, like color temperature, spectral distribution, CRI, CQS, TM-30 with a very high accuracy rate.

Please Note: All measurements are made with light source at operating temperature. Before starting the measurement, the instrument analyzes the process of the light source during the heating phase. The measuring process of all the parameters begins only when the light emission is stable, that is with a variation of less than 0.5% in a 15 minutes time frame.

Prolights measurement software

The software provides user friendly interface for the operator who does the measurements, and it also analyzes and processes all the collected data by the instrument. With this software it is possible to see the measured data in real-time and it is possible to examine all the measured data and graphics afterwards as well. All information is collected in a specific Prolights template, and the software creates also IES and LDT files, which are widely used to transfer the photometric data, and to develop lighting system.

Additionally, the fixtures are rechecked using various hand-held instruments like Sekonic C-700 and Gossen Mavospec Base, this is done to ensure, that the data in the photometric report are as accurate as possible.



Total lumen output:

307 lm

Peak candela output:

5345 cd

Light quality:

CRI: 91,6

Color temperature:

6367 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

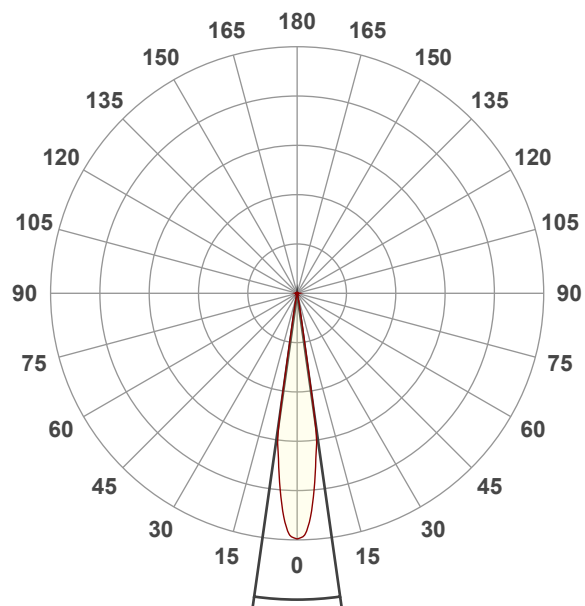
Full On

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:34:22

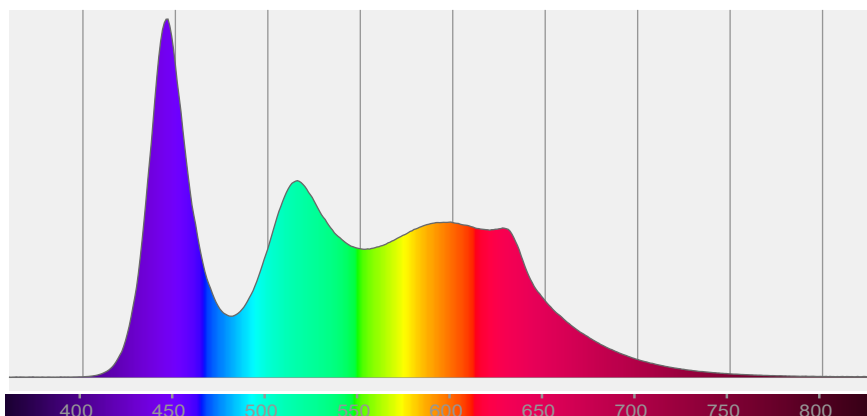


Beam angle 50%: 16,1°

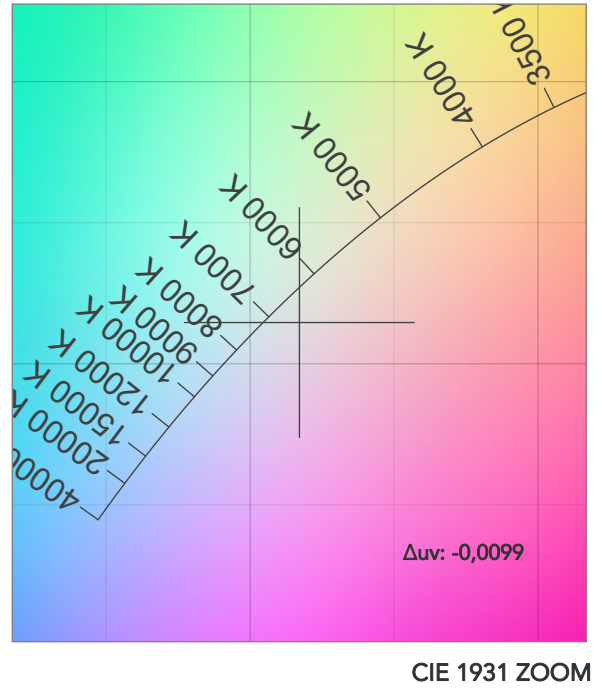
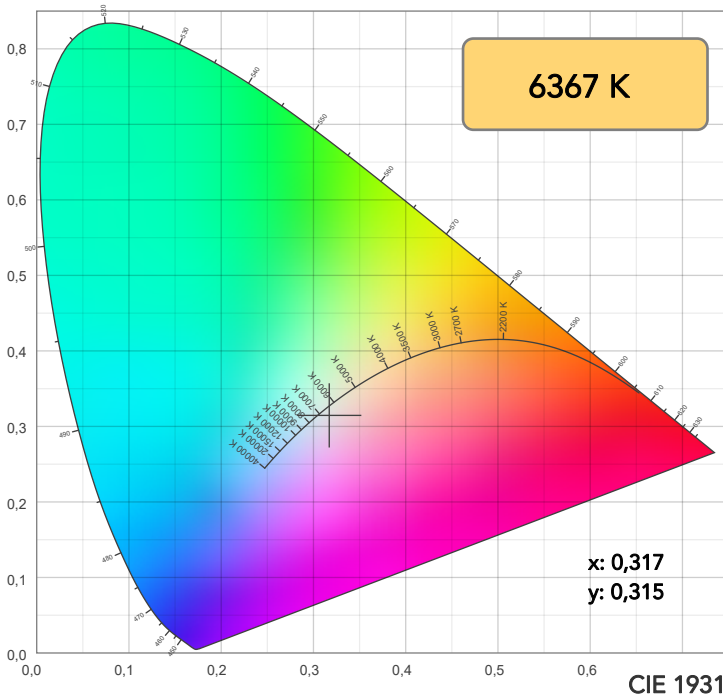
Field angle 10%: 18,9°

Cut off angle 2.5%: 21,2°

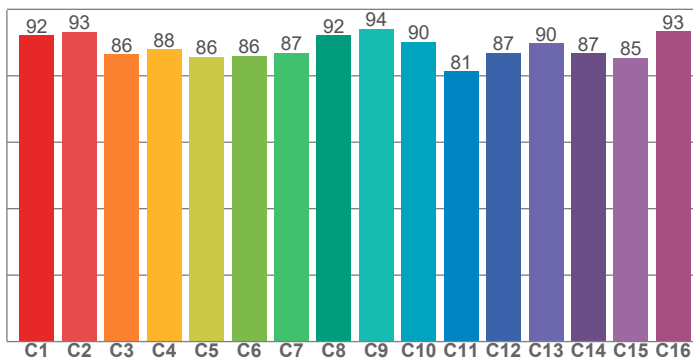
Spectra



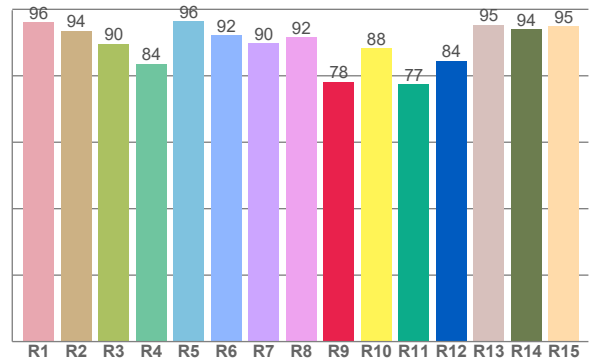
COLOR DETAILS



TM30: 88,4



CRI: 91,6 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 96,2 | 93,6 | 89,7 | 83,6 | 96,4 | 92,2 | 89,9 | 91,5 | 78,2 | 88,3 | 77,5 | 84,5 | 95,4 | 93,9 | 94,9 |

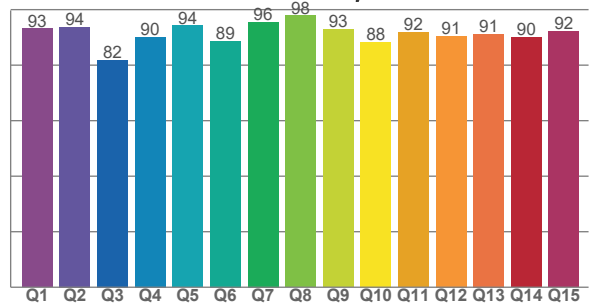
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92,2 | 93,2 | 86,4 | 88,0 | 85,8 | 86,0 | 87,0 | 92,1 | 94,2 | 90,2 | 81,3 | 86,9 | 89,8 | 86,7 | 85,3 | 93,3 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93,2 | 93,8 | 81,9 | 90,2 | 94,2 | 88,7 | 95,5 | 97,8 | 92,9 | 88,4 | 91,8 | 90,5 | 91,2 | 90,0 | 92,2 |

CQS: 90,8



COLOR PARAMETERS

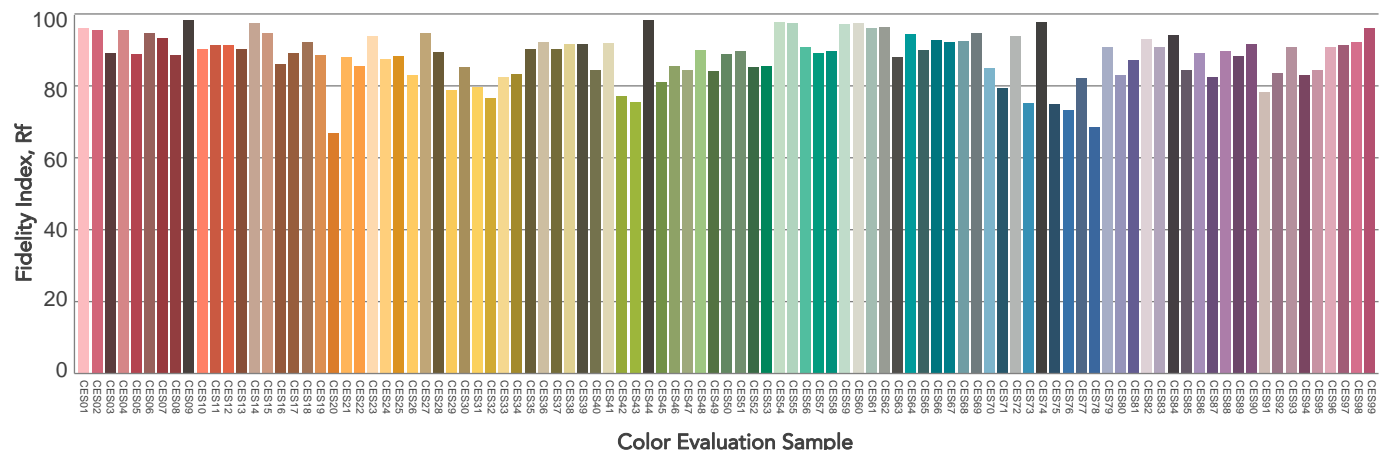
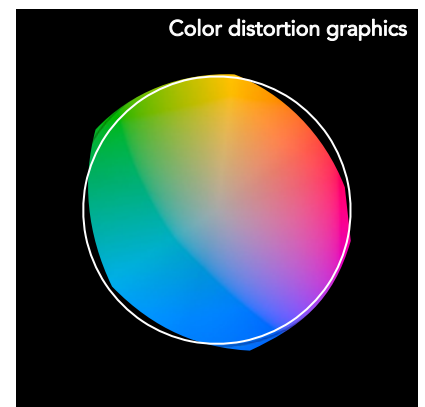
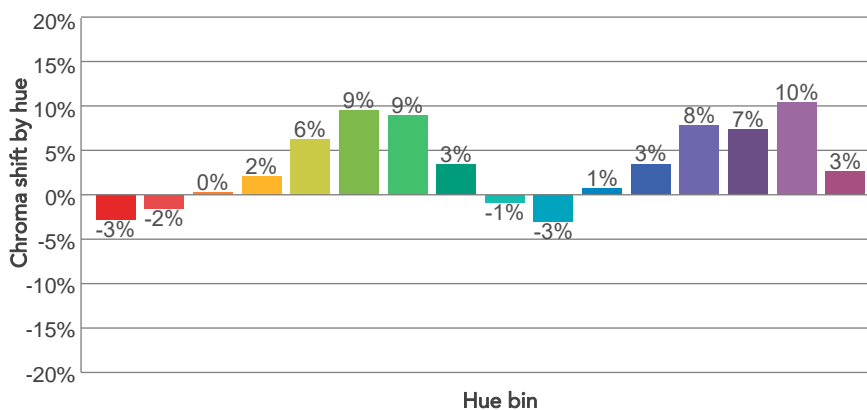
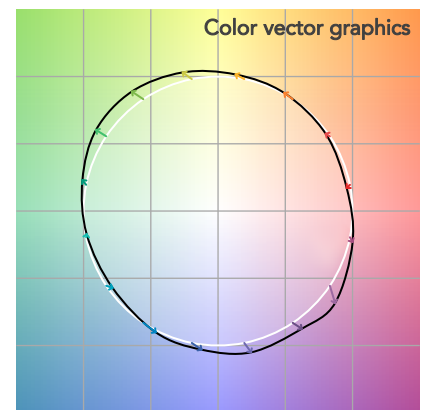
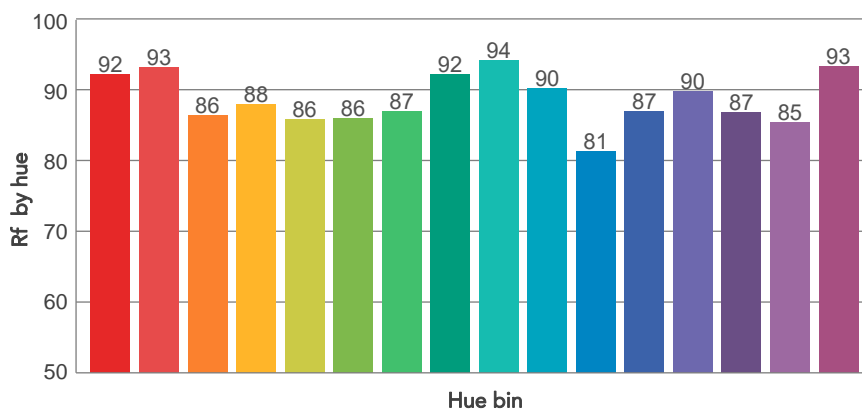
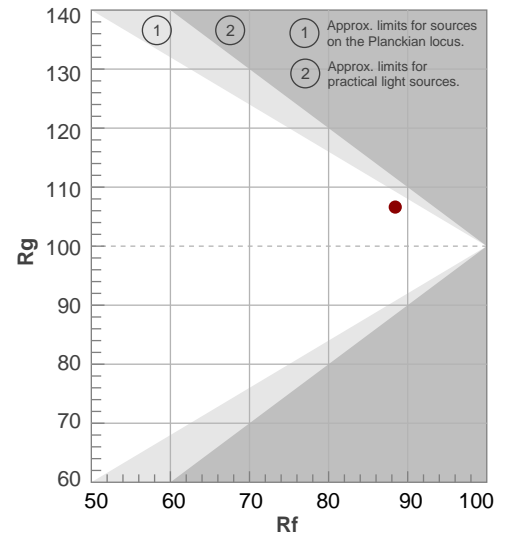
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 6367 K | 91,6 | 78,2 | 88,4 | 106,6 | 90,8 | 84 | 0,317 | 0,315 | -0,0099 |

TM30 DETAILS

Rf 88,4
Fidelity index Rf

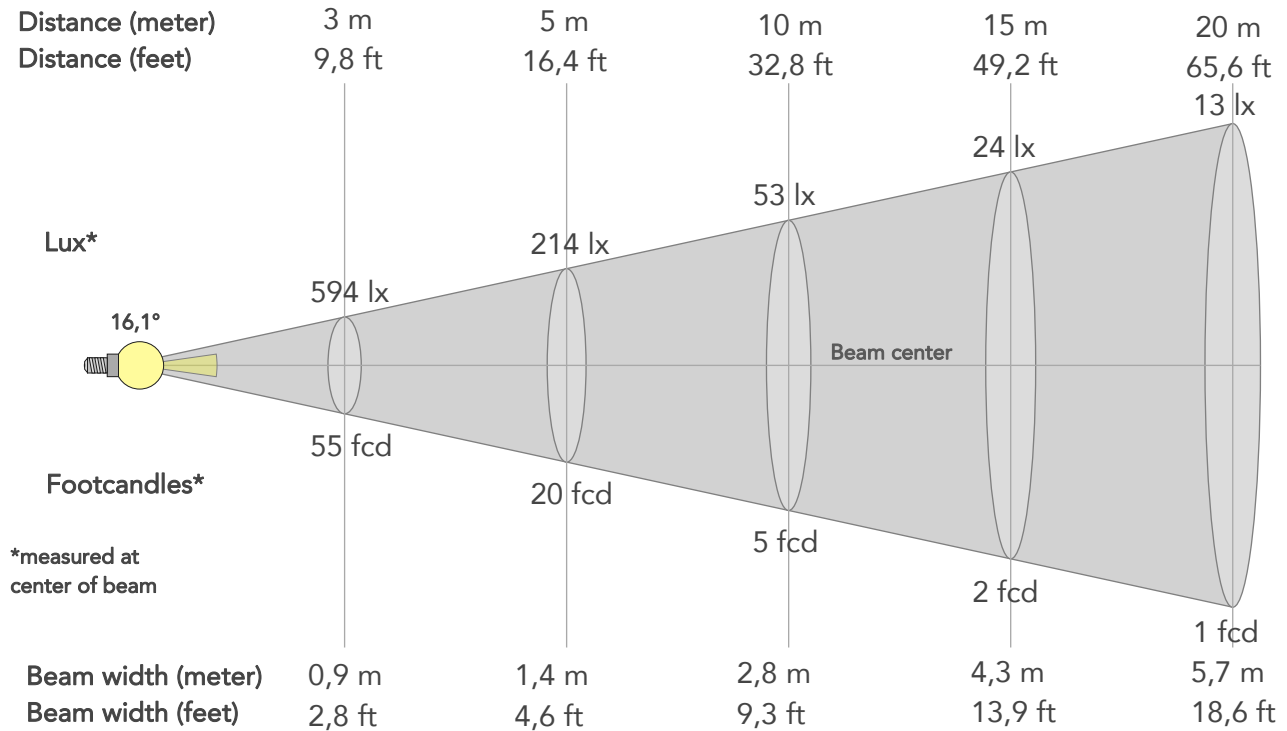
Rg 106,6
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 92 | -3% | -2% |
| 2 | 93 | -2% | 3% |
| 3 | 86 | 0% | 8% |
| 4 | 88 | 2% | 7% |
| 5 | 86 | 6% | 6% |
| 6 | 86 | 9% | 4% |
| 7 | 87 | 9% | 0% |
| 8 | 92 | 3% | -3% |
| 9 | 94 | -1% | -2% |
| 10 | 90 | -3% | 4% |
| 11 | 81 | 1% | 12% |
| 12 | 87 | 3% | 8% |
| 13 | 90 | 8% | 4% |
| 14 | 87 | 7% | 3% |
| 15 | 85 | 10% | -9% |
| 16 | 93 | 3% | -3% |



BEAM DETAILS

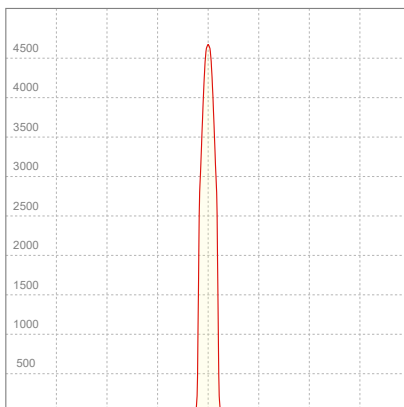
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 16,1° | 18,9° | 21,2° | 97,3% | 96,6% |



BEAM INTENSITIES AND WIDTHS

| Distance | 1m | 2m | 3m | 4m | 5m | 7,5m | 10m | 15m | 20m | 25m | 30m | 40m | 50m |
|-----------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Distance | 3,3ft | 6,6ft | 9,8ft | 13,1ft | 16,4ft | 24,6ft | 32,8ft | 49,2ft | 65,6ft | 82ft | 98,4ft | 131,2ft | 164ft |
| Lux | 5345lx | 1336lx | 594lx | 334lx | 214lx | 95lx | 53lx | 24lx | 13lx | 9lx | 6lx | 3lx | 2lx |
| Footcand. | 497fcd | 124fcd | 55fcd | 31fcd | 20fcd | 9fcd | 5fcd | 2fcd | 1fcd | 1fcd | 1fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,9m | 1,1m | 1,4m | 2,1m | 2,8m | 4,3m | 5,7m | 7,1m | 8,5m | 11,3m | 14,2m |
| Beam wid. | 0,9ft | 1,9ft | 2,8ft | 3,7ft | 4,6ft | 7ft | 9,3ft | 13,9ft | 18,6ft | 23,2ft | 27,9ft | 37,2ft | 46,5ft |

LINEAR DISTRIBUTION DIAGRAM

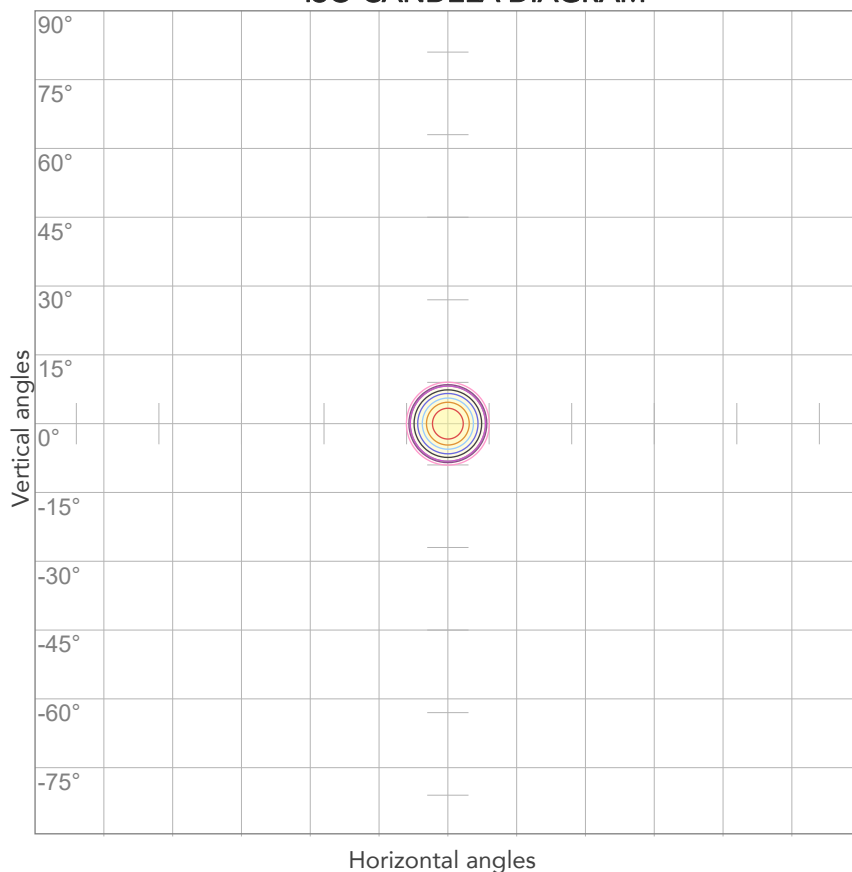


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 223V | 0,294A | 29,6W | 0,45 | 10lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



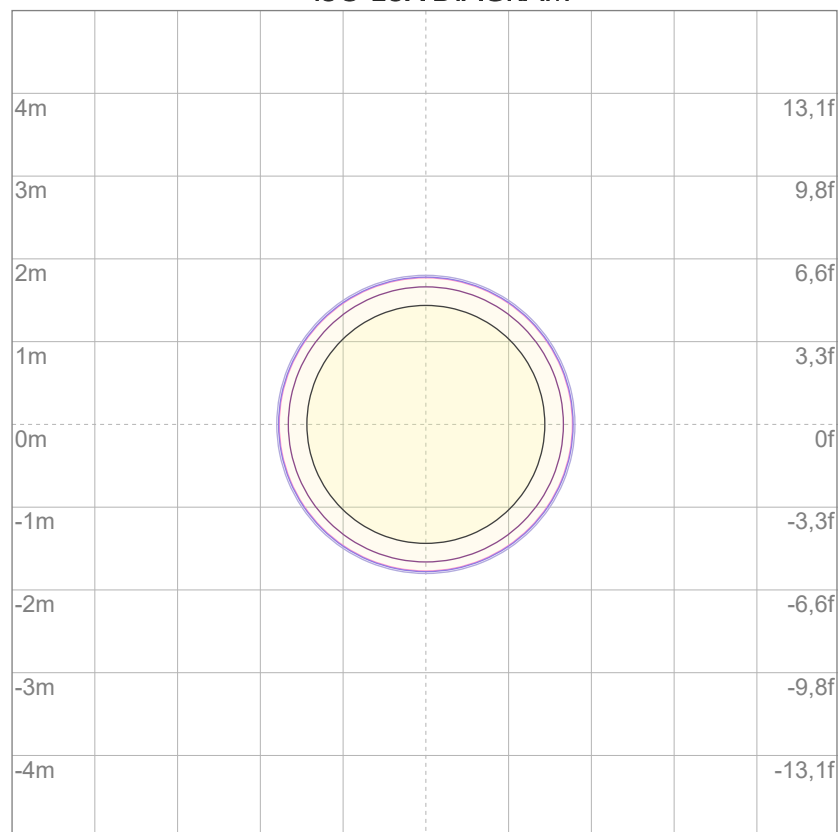
| | |
|-----|---------|
| 10% | 534 cd |
| 20% | 1069 cd |
| 30% | 1603 cd |
| 40% | 2138 cd |
| 50% | 2672 cd |
| 60% | 3207 cd |
| 70% | 3741 cd |
| 80% | 4276 cd |

Conditions:

Number of c-planes: 2

Candela at center: 5345 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,60 lx |
| 5% | 2,67 lx |
| 10% | 5,34 lx |
| 30% | 16,0 lx |
| 50% | 26,7 lx |

Conditions:

Number of c-planes: 2

Lux at center: 53,4 lx

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



Total lumen output:

84,1 lm

Peak candela output:

1395 cd

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

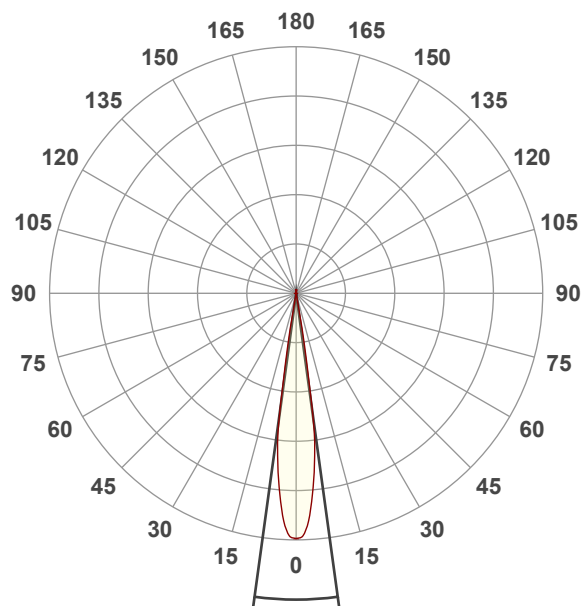
Red

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:35:59

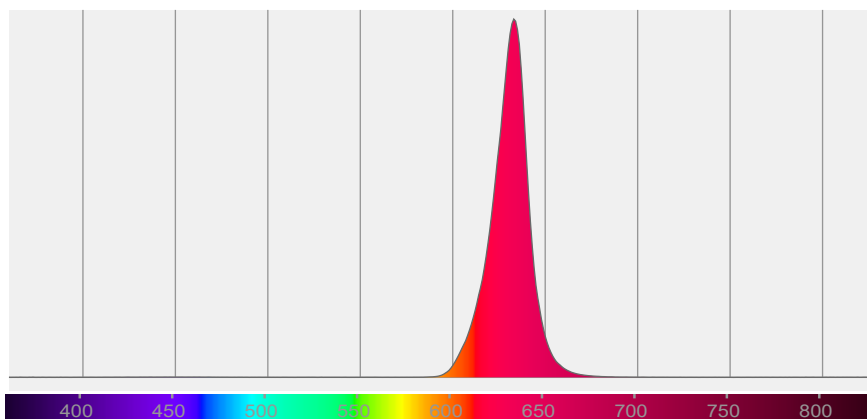


Beam angle 50%: 15,6°

Field angle 10%: 19,8°

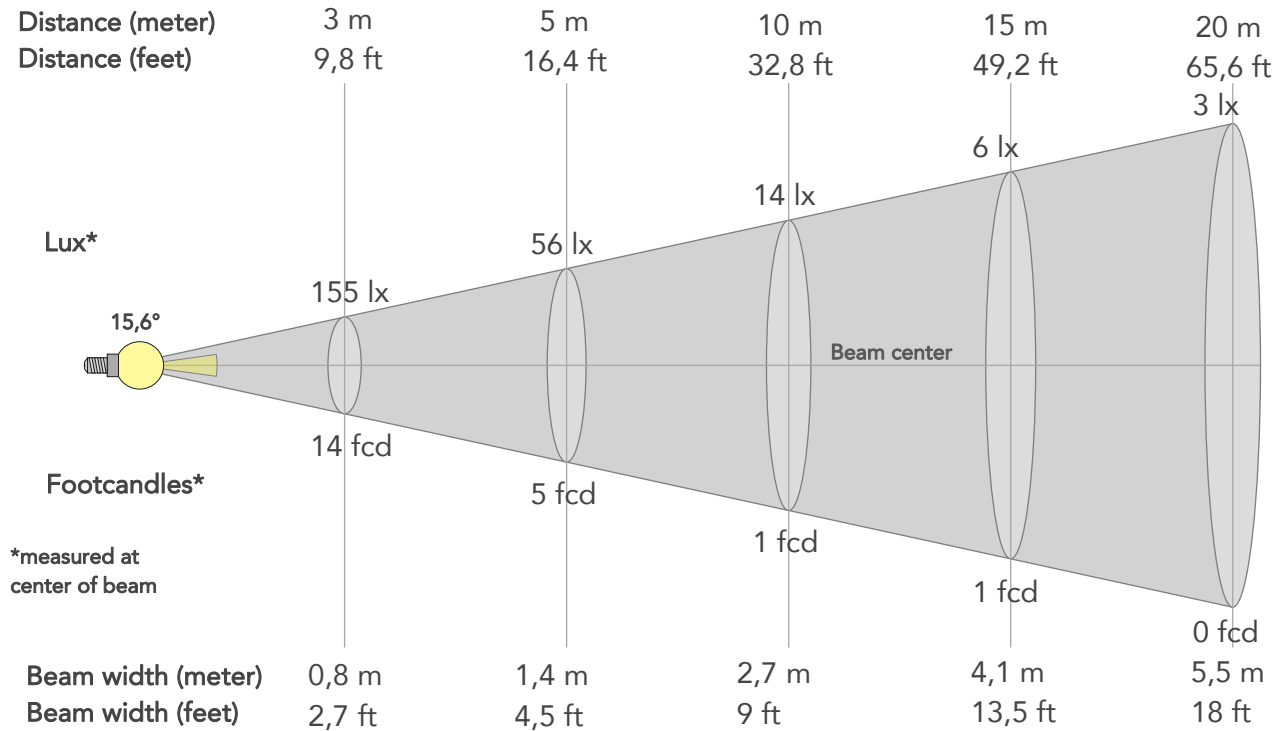
Cut off angle 2.5%: 20,9°

Spectra



BEAM DETAILS

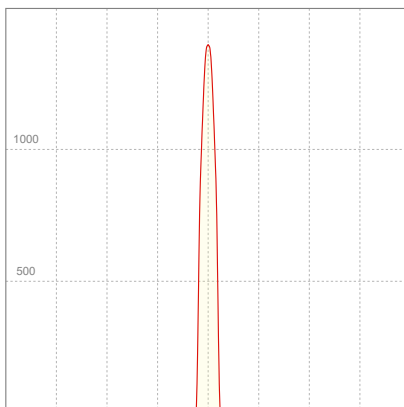
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 15,6° | 19,8° | 20,9° | 94,8% | 93,1% |



BEAM INTENSITIES AND WIDTHS

| Distance | 1m | 2m | 3m | 4m | 5m | 7,5m | 10m | 15m | 20m | 25m | 30m | 40m | 50m |
|-----------|--------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-------|
| Distance | 3,3ft | 6,6ft | 9,8ft | 13,1ft | 16,4ft | 24,6ft | 32,8ft | 49,2ft | 65,6ft | 82ft | 98,4ft | 131,2ft | 164ft |
| Lux | 1395lx | 349lx | 155lx | 87lx | 56lx | 25lx | 14lx | 6lx | 3lx | 2lx | 2lx | 1lx | 1lx |
| Footcand. | 130fcd | 32fcd | 14fcd | 8fcd | 5fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,5m | 0,8m | 1,1m | 1,4m | 2,1m | 2,7m | 4,1m | 5,5m | 6,9m | 8,2m | 11m | 13,7m |
| Beam wid. | 0,9ft | 1,8ft | 2,7ft | 3,6ft | 4,5ft | 6,7ft | 9ft | 13,5ft | 18ft | 22,5ft | 27ft | 36ft | 45ft |

LINEAR DISTRIBUTION DIAGRAM

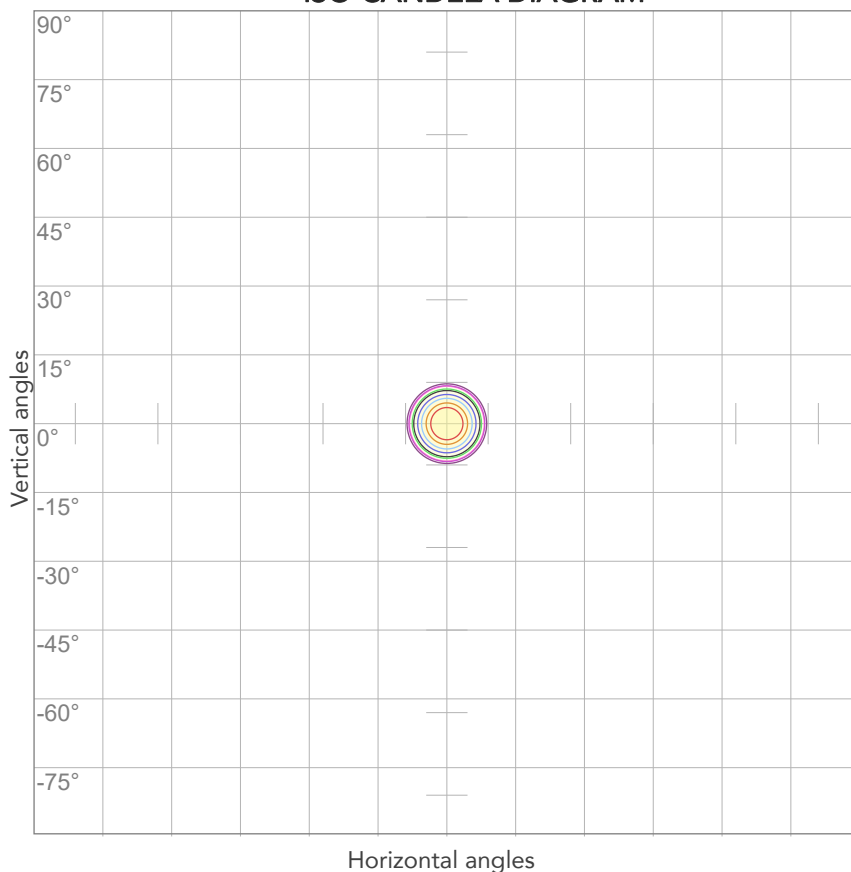


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Efficiency |
|---------------|---------------|-------------|----------|------------|
| 226V | 0,154A | 13,3W | 0,38 | 6lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



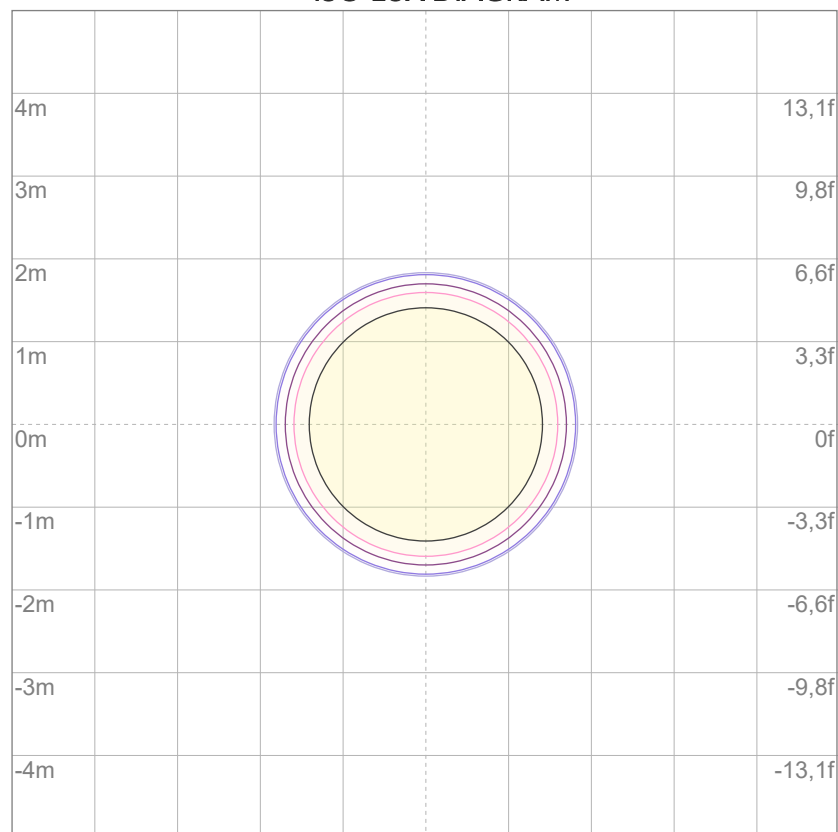
| | |
|-----|---------|
| 10% | 140 cd |
| 20% | 279 cd |
| 30% | 419 cd |
| 40% | 558 cd |
| 50% | 698 cd |
| 60% | 837 cd |
| 70% | 977 cd |
| 80% | 1116 cd |

Conditions:

Number of c-planes: 2

Candela at center: 1395 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,419 lx |
| 5% | 0,698 lx |
| 10% | 1,40 lx |
| 30% | 4,19 lx |
| 50% | 6,98 lx |

Conditions:

Number of c-planes: 2

Lux at center: 14,0 lx

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



Total lumen output:

106 lm

Peak candela output:

1831 cd

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

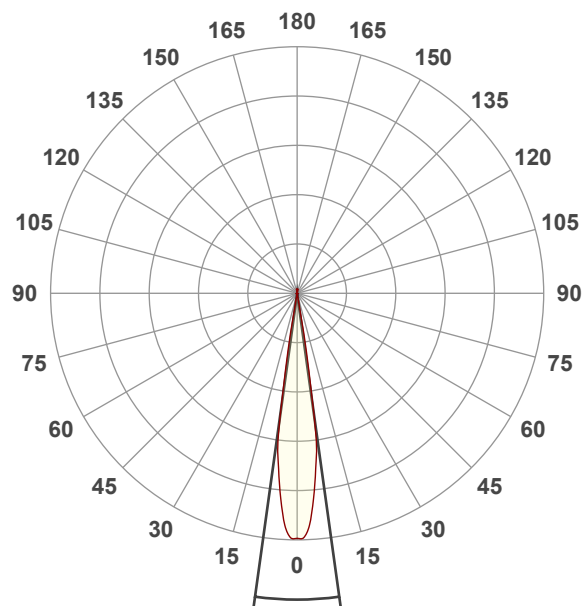
Green

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:37:25

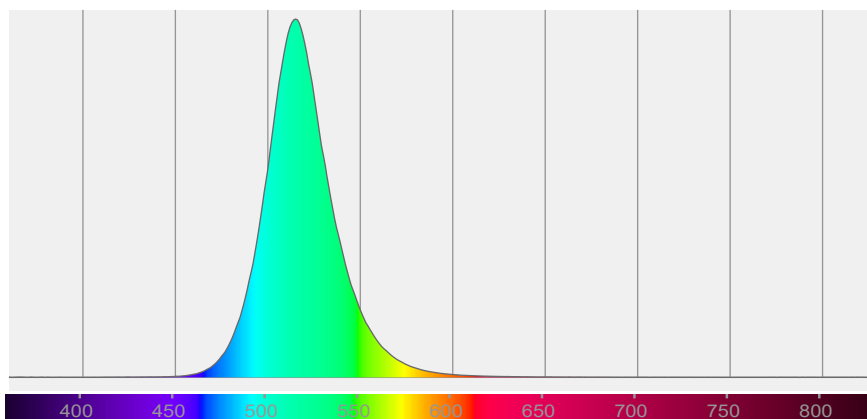


Beam angle 50%: 15,8°

Field angle 10%: 19,8°

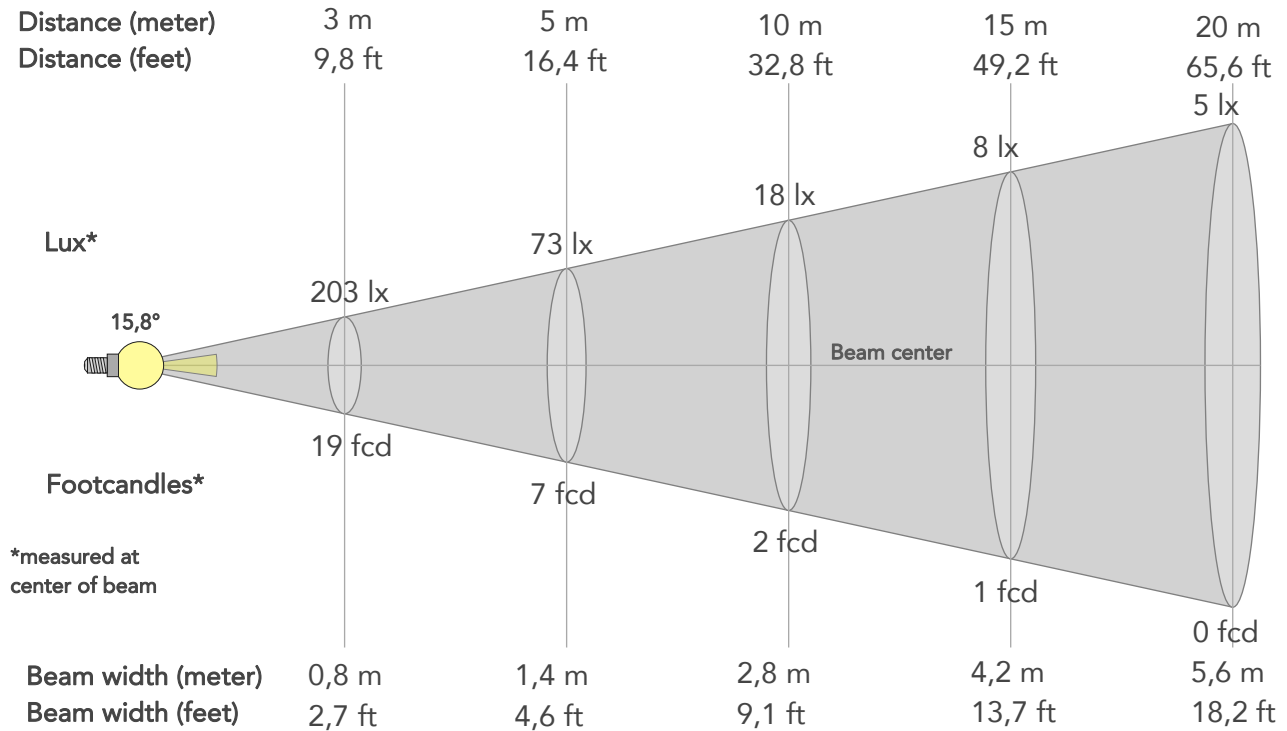
Cut off angle 2.5%: 20,8°

Spectra



BEAM DETAILS

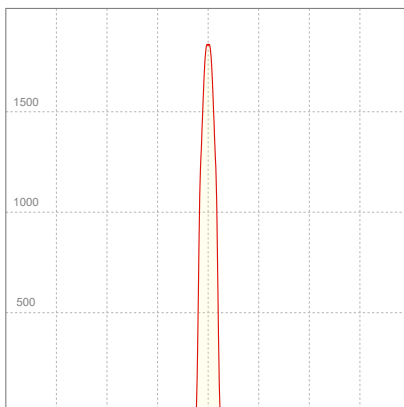
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 15,8° | 19,8° | 20,8° | 98,0% | 97,3% |



BEAM INTENSITIES AND WIDTHS

| Distance | 1m | 2m | 3m | 4m | 5m | 7,5m | 10m | 15m | 20m | 25m | 30m | 40m | 50m |
|-----------|--------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Distance | 3,3ft | 6,6ft | 9,8ft | 13,1ft | 16,4ft | 24,6ft | 32,8ft | 49,2ft | 65,6ft | 82ft | 98,4ft | 131,2ft | 164ft |
| Lux | 1831lx | 458lx | 203lx | 114lx | 73lx | 33lx | 18lx | 8lx | 5lx | 3lx | 2lx | 1lx | 1lx |
| Footcand. | 170fcd | 43fcd | 19fcd | 11fcd | 7fcd | 3fcd | 2fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,8m | 1,1m | 1,4m | 2,1m | 2,8m | 4,2m | 5,6m | 6,9m | 8,3m | 11,1m | 13,9m |
| Beam wid. | 0,9ft | 1,8ft | 2,7ft | 3,6ft | 4,6ft | 6,8ft | 9,1ft | 13,7ft | 18,2ft | 22,8ft | 27,3ft | 36,4ft | 45,5ft |

LINEAR DISTRIBUTION DIAGRAM

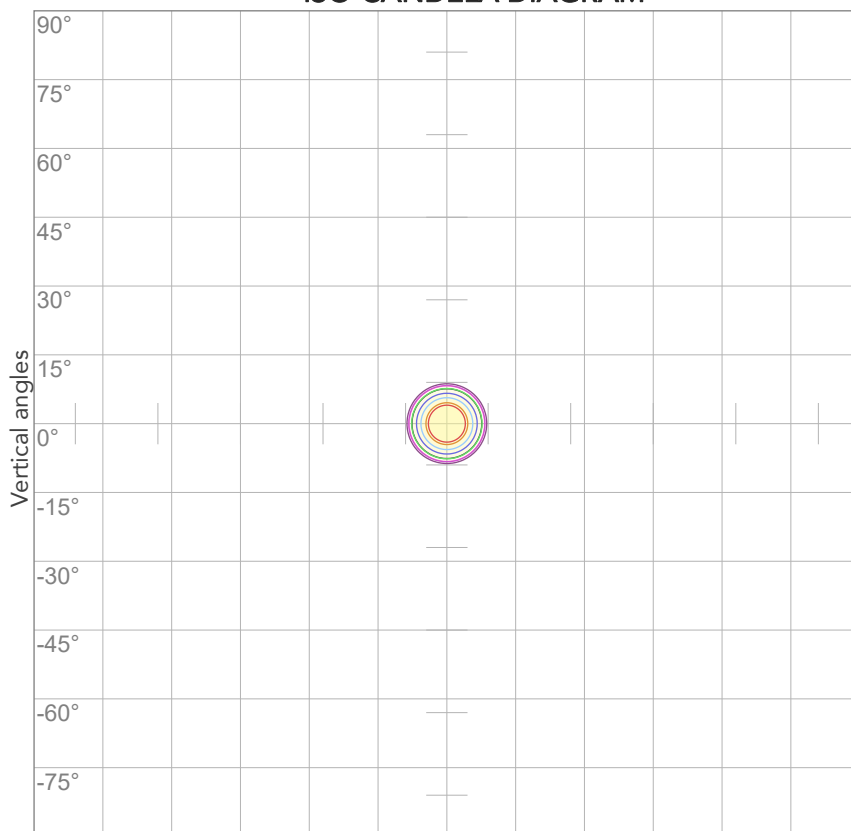


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Efficiency |
|---------------|---------------|-------------|----------|------------|
| 226V | 0,168A | 14,6W | 0,39 | 7lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



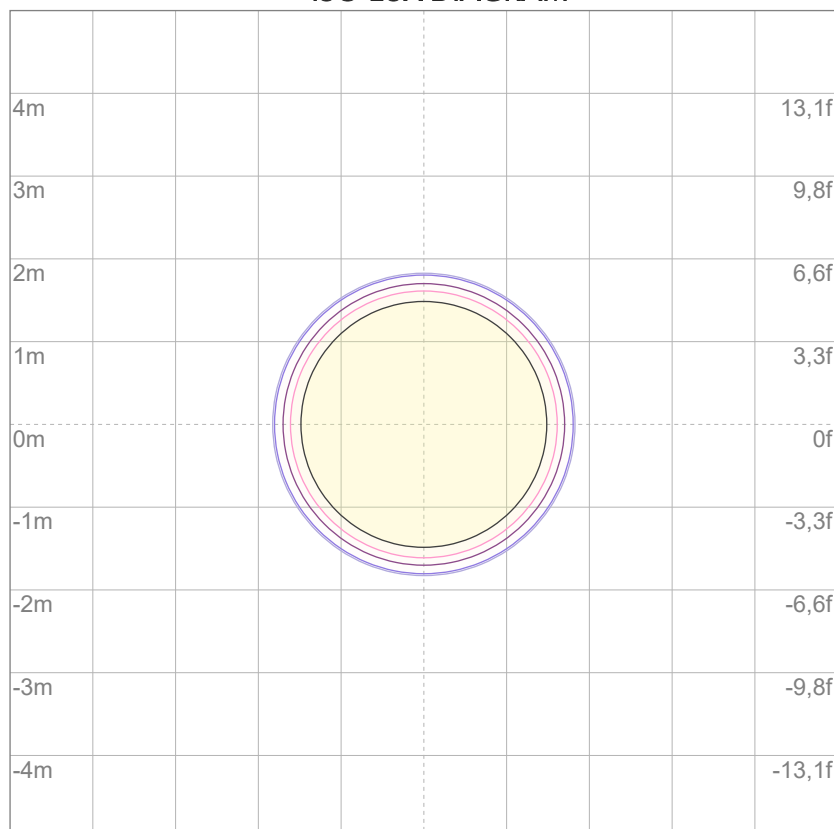
| | |
|-----|---------|
| 10% | 183 cd |
| 20% | 366 cd |
| 30% | 549 cd |
| 40% | 732 cd |
| 50% | 916 cd |
| 60% | 1099 cd |
| 70% | 1282 cd |
| 80% | 1465 cd |

Conditions:

Number of c-planes: 2

Candela at center: 1831 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,549 lx |
| 5% | 0,916 lx |
| 10% | 1,83 lx |
| 30% | 5,49 lx |
| 50% | 9,16 lx |

Conditions:

Number of c-planes: 2

Lux at center: 18,3 lx

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



Total lumen output:

46,5 lm

Peak candela output:

591 cd

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

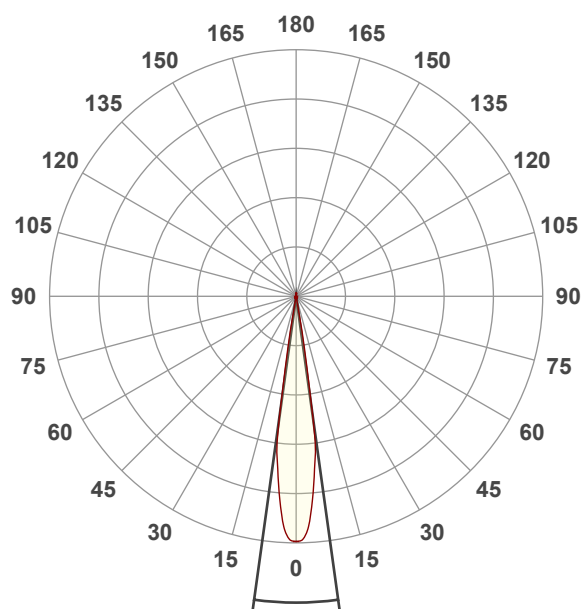
Blue

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:38:50

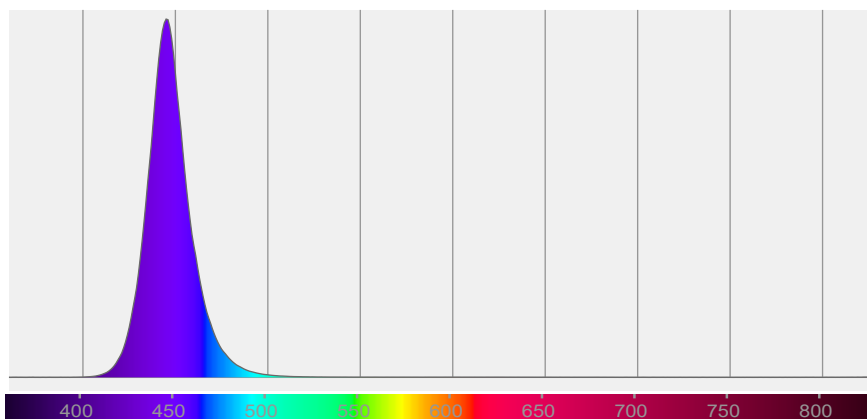


Beam angle 50%: 15,8°

Field angle 10%: 19,8°

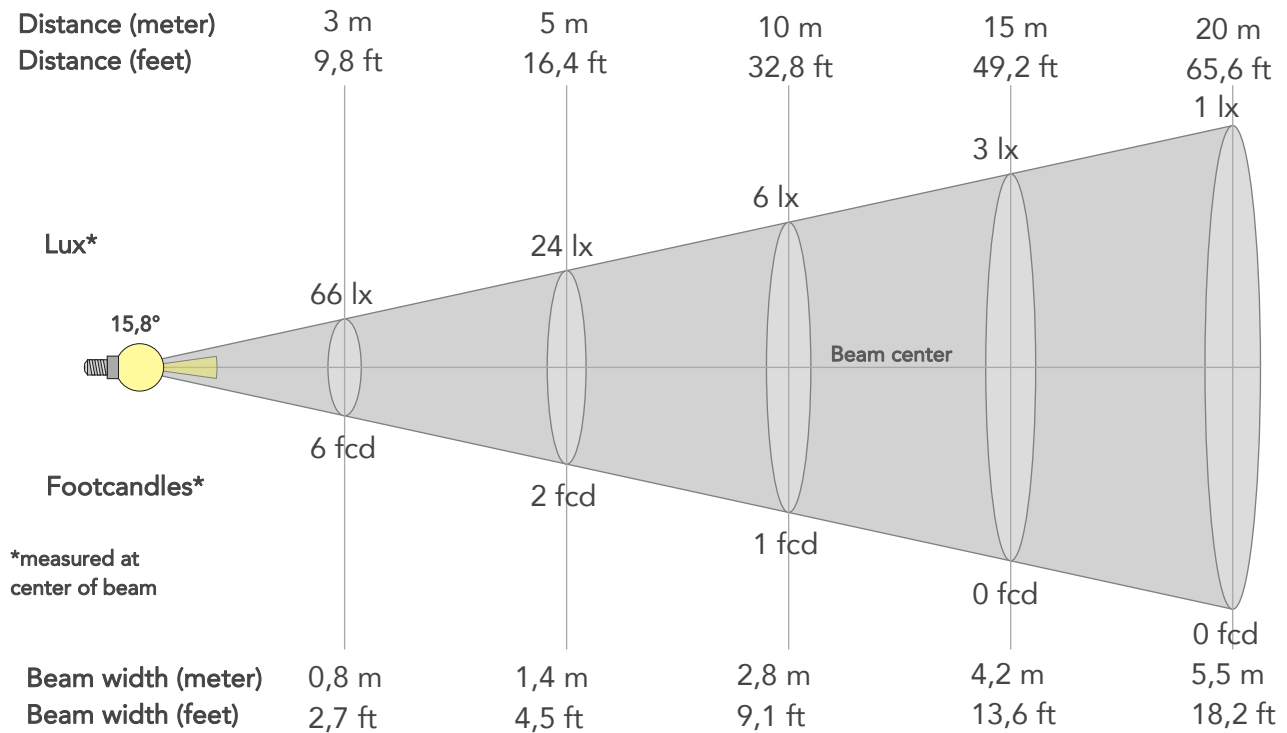
Cut off angle 2.5%: 20,8°

Spectra



BEAM DETAILS

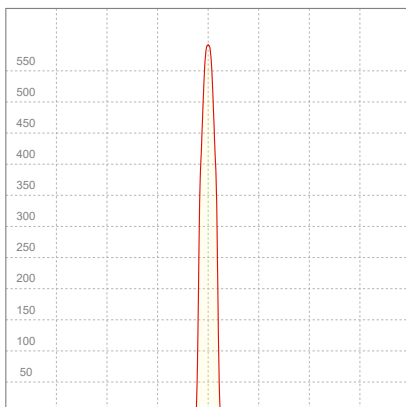
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 15,8° | 19,8° | 20,8° | 80,8% | 75,8% |



BEAM INTENSITIES AND WIDTHS

| Distance | 1m | 2m | 3m | 4m | 5m | 7,5m | 10m | 15m | 20m | 25m | 30m | 40m | 50m |
|-----------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Distance | 3,3ft | 6,6ft | 9,8ft | 13,1ft | 16,4ft | 24,6ft | 32,8ft | 49,2ft | 65,6ft | 82ft | 98,4ft | 131,2ft | 164ft |
| Lux | 591lx | 148lx | 66lx | 37lx | 24lx | 11lx | 6lx | 3lx | 1lx | 1lx | 1lx | 0lx | 0lx |
| Footcand. | 55fcd | 14fcd | 6fcd | 3fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,8m | 1,1m | 1,4m | 2,1m | 2,8m | 4,2m | 5,5m | 6,9m | 8,3m | 11,1m | 13,8m |
| Beam wid. | 0,9ft | 1,8ft | 2,7ft | 3,6ft | 4,5ft | 6,8ft | 9,1ft | 13,6ft | 18,2ft | 22,7ft | 27,3ft | 36,3ft | 45,4ft |

LINEAR DISTRIBUTION DIAGRAM

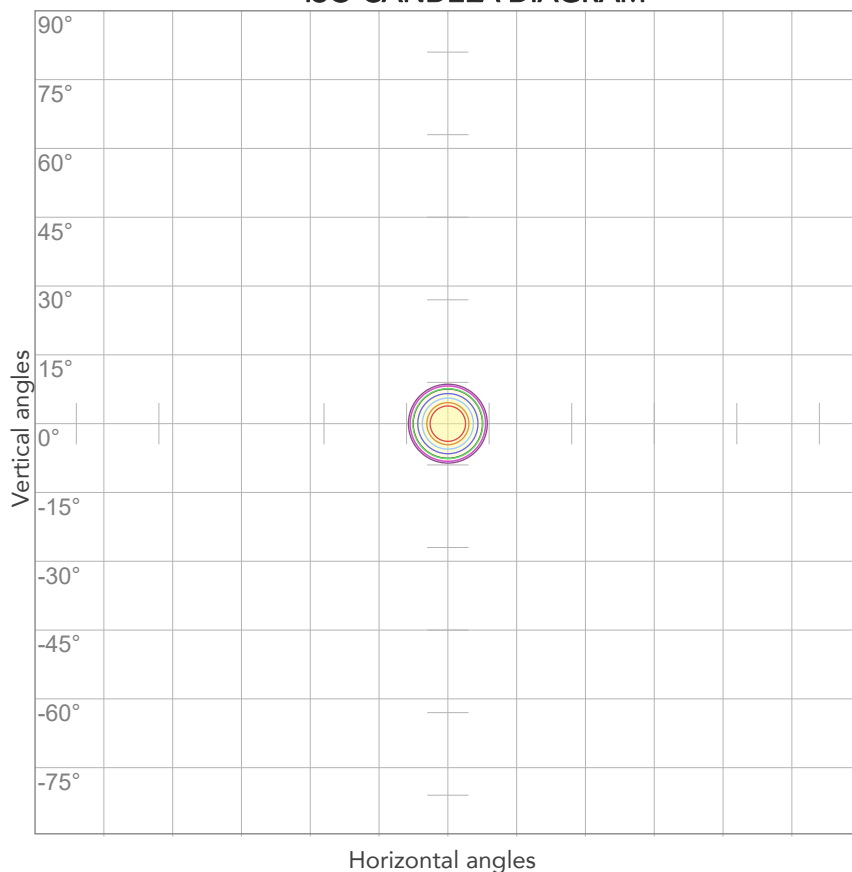


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 226V | 0,187A | 16,3W | 0,39 | 3lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



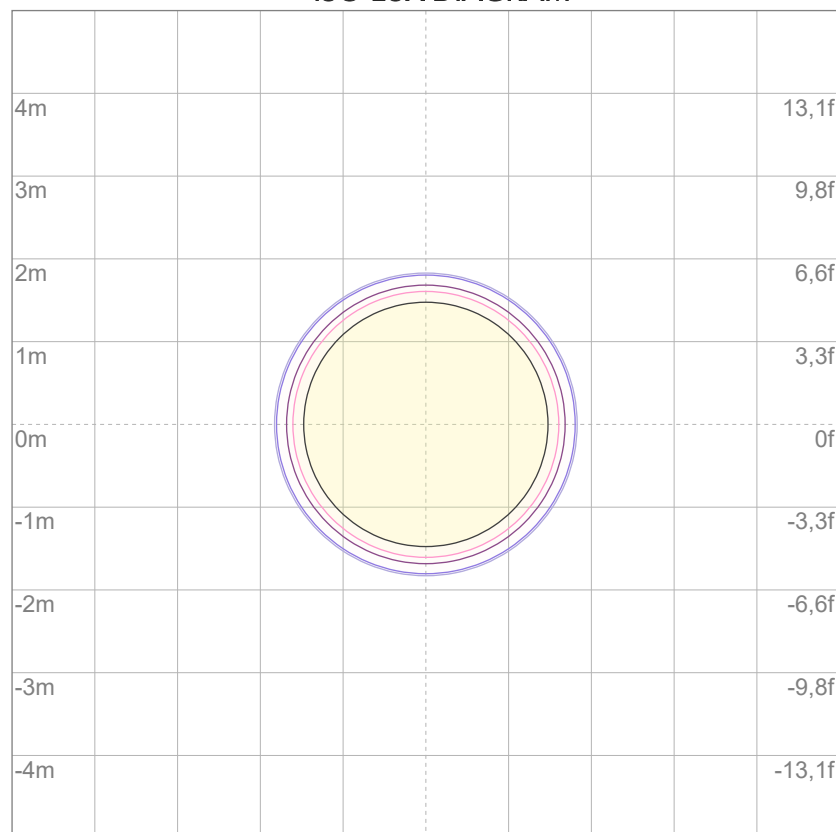
| | |
|-----|--------|
| 10% | 59 cd |
| 20% | 118 cd |
| 30% | 177 cd |
| 40% | 236 cd |
| 50% | 296 cd |
| 60% | 355 cd |
| 70% | 414 cd |
| 80% | 473 cd |

Conditions:

Number of c-planes: 2

Candela at center: 591 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,177 lx |
| 5% | 0,296 lx |
| 10% | 0,591 lx |
| 30% | 1,77 lx |
| 50% | 2,96 lx |

Conditions:

Number of c-planes: 2

Lux at center: 5,91 lx

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



Total lumen output:

204 lm

Peak candela output:

3589 cd

Light quality:

CRI: 78,0

Color temperature:

3361 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

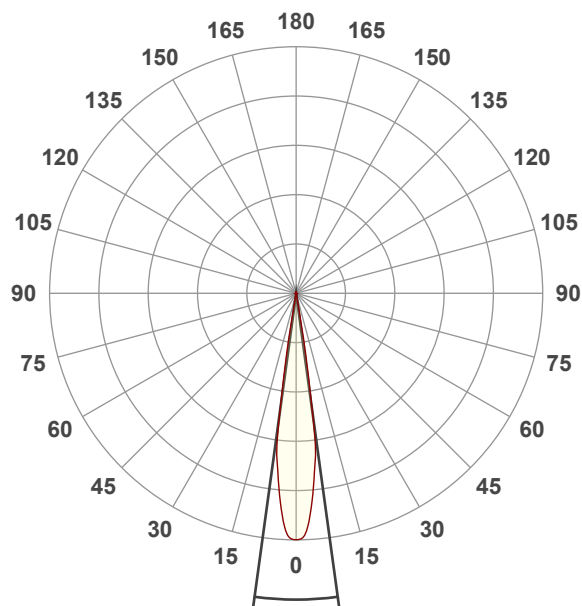
White

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:40:19

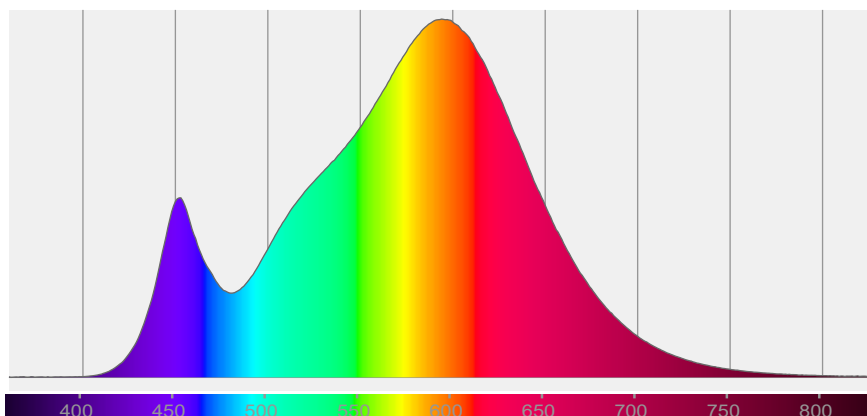


Beam angle 50%: 15,6°

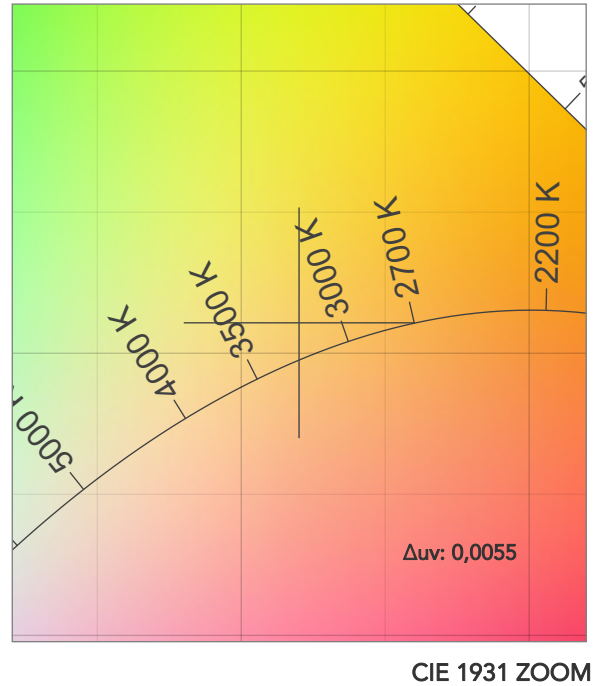
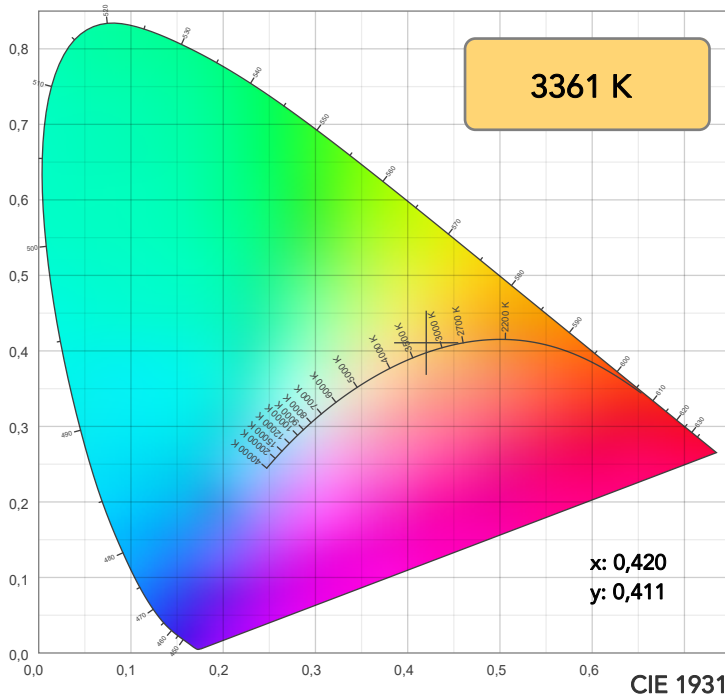
Field angle 10%: 19,8°

Cut off angle 2.5%: 20,8°

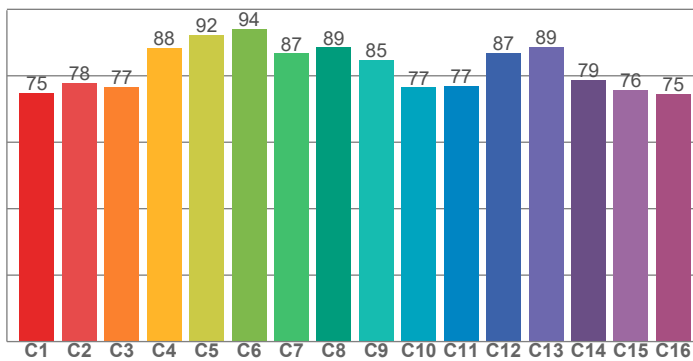
Spectra



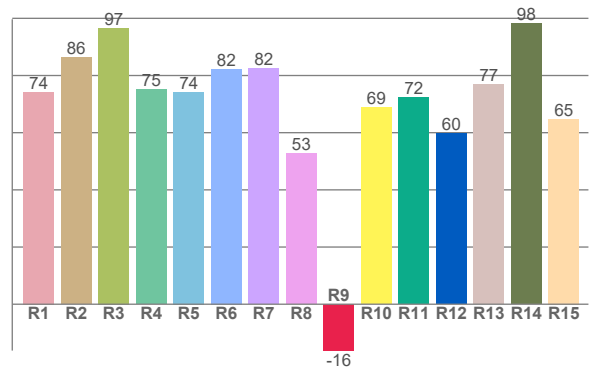
COLOR DETAILS



TM30: 82,4



CRI: 78,0 (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 |
|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|
| 74,3 | 86,2 | 96,6 | 75,1 | 74,2 | 82,2 | 82,5 | 52,7 | -16,2 | 68,8 | 72,3 | 59,7 | 76,9 | 98,2 | 64,7 |

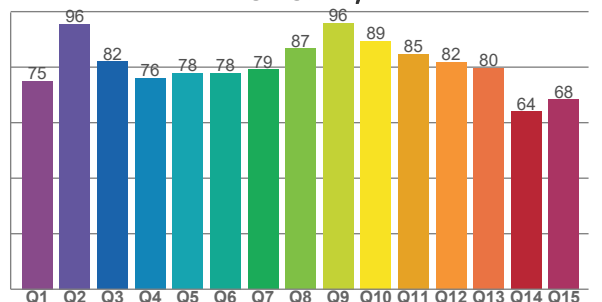
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 74,8 | 77,8 | 76,7 | 88,4 | 92,4 | 94,1 | 86,8 | 88,5 | 84,8 | 76,5 | 77,0 | 86,8 | 88,8 | 78,8 | 75,7 | 74,6 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 75,0 | 95,5 | 82,1 | 76,0 | 77,8 | 77,8 | 79,1 | 86,7 | 95,9 | 89,5 | 84,8 | 81,8 | 79,7 | 64,0 | 68,3 |

CQS: 79,1



COLOR PARAMETERS

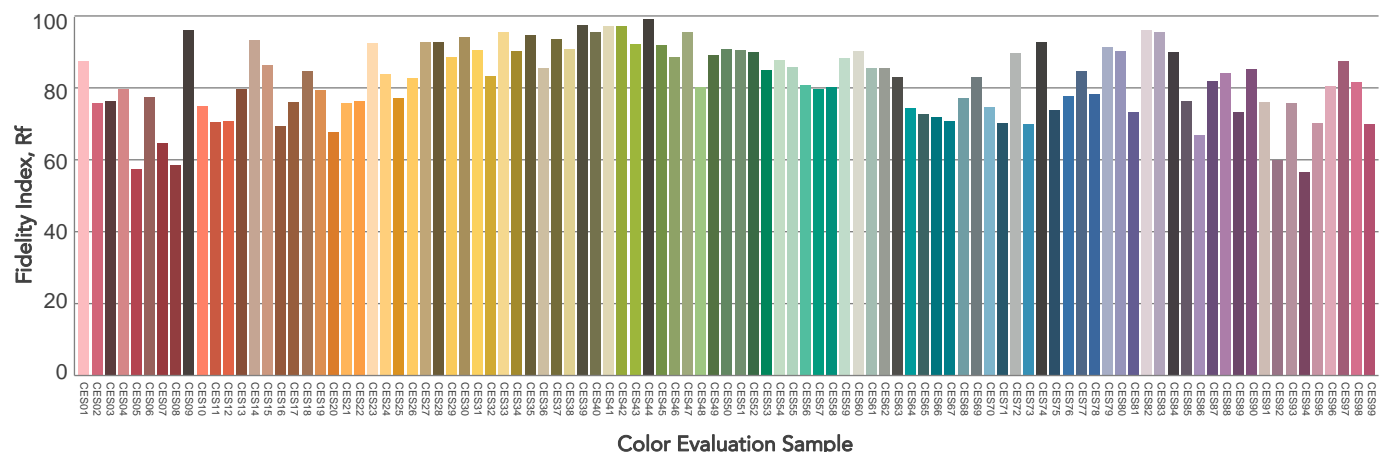
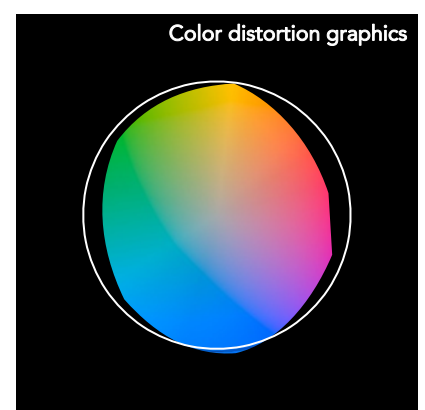
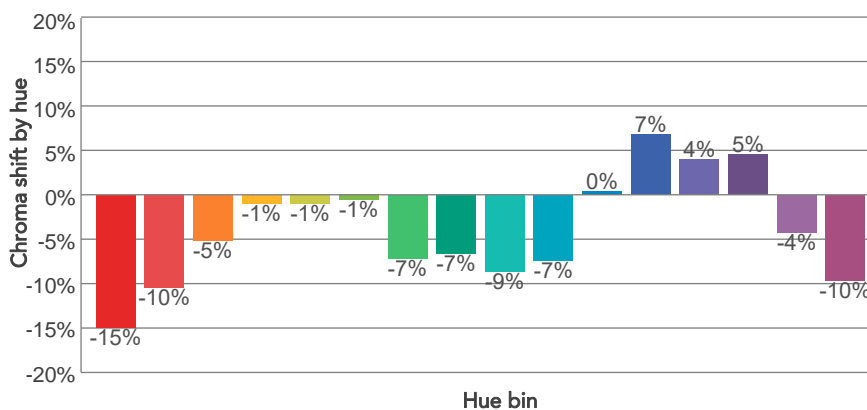
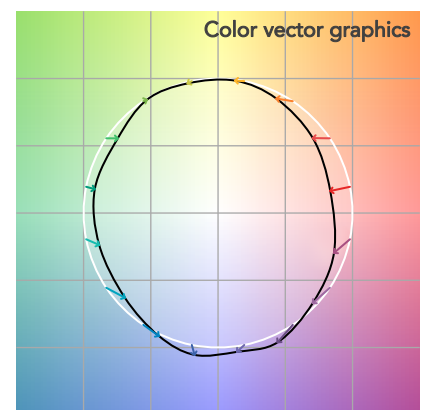
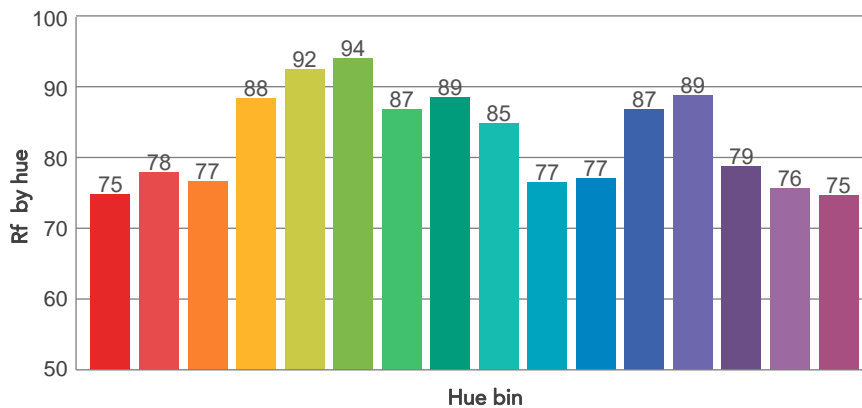
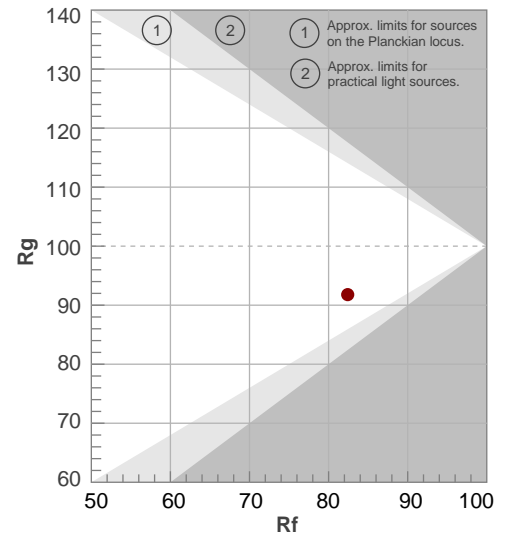
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 3361 K | 78,0 | -16,2 | 82,4 | 91,8 | 79,1 | 62 | 0,420 | 0,411 | 0,0055 |

TM30 DETAILS

Rf 82,4
Fidelity index Rf

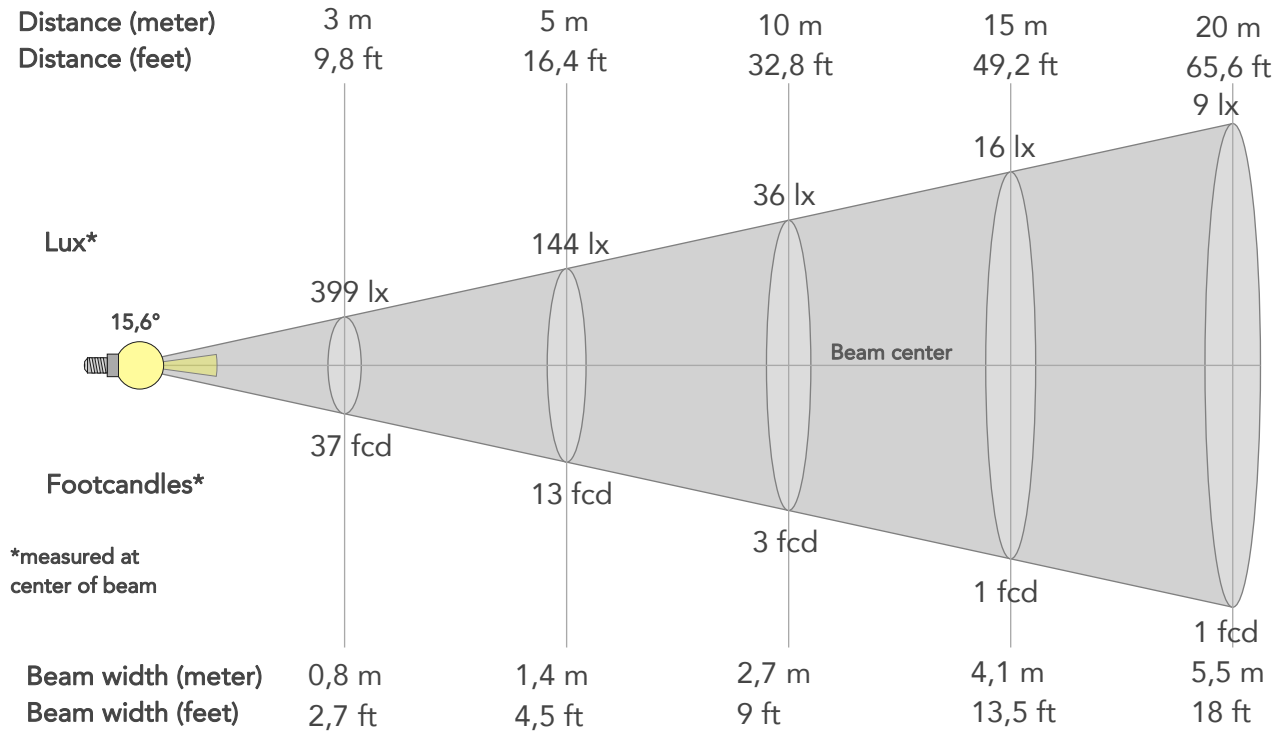
Rg 91,8
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|------|
| | | Chroma | Hue |
| 1 | 75 | -15% | 0% |
| 2 | 78 | -10% | 7% |
| 3 | 77 | -5% | 11% |
| 4 | 88 | -1% | 7% |
| 5 | 92 | -1% | 3% |
| 6 | 94 | -1% | -3% |
| 7 | 87 | -7% | -5% |
| 8 | 89 | -7% | 0% |
| 9 | 85 | -9% | 6% |
| 10 | 77 | -7% | 14% |
| 11 | 77 | 0% | 14% |
| 12 | 87 | 7% | 3% |
| 13 | 89 | 4% | -6% |
| 14 | 79 | 5% | -17% |
| 15 | 76 | -4% | -17% |
| 16 | 75 | -10% | -12% |



BEAM DETAILS

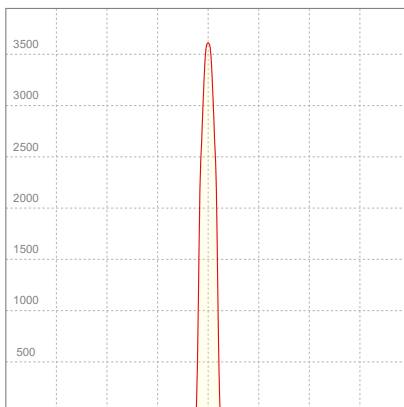
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 15,6° | 19,8° | 20,8° | 98,1% | 97,6% |



BEAM INTENSITIES AND WIDTHS

| Distance | 1m | 2m | 3m | 4m | 5m | 7,5m | 10m | 15m | 20m | 25m | 30m | 40m | 50m |
|-----------|--------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Distance | 3,3ft | 6,6ft | 9,8ft | 13,1ft | 16,4ft | 24,6ft | 32,8ft | 49,2ft | 65,6ft | 82ft | 98,4ft | 131,2ft | 164ft |
| Lux | 3589lx | 897lx | 399lx | 224lx | 144lx | 64lx | 36lx | 16lx | 9lx | 6lx | 4lx | 2lx | 1lx |
| Footcand. | 333fcd | 83fcd | 37fcd | 21fcd | 13fcd | 6fcd | 3fcd | 1fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,5m | 0,8m | 1,1m | 1,4m | 2,1m | 2,7m | 4,1m | 5,5m | 6,9m | 8,2m | 11m | 13,7m |
| Beam wid. | 0,9ft | 1,8ft | 2,7ft | 3,6ft | 4,5ft | 6,7ft | 9ft | 13,5ft | 18ft | 22,5ft | 27ft | 36ft | 44,9ft |

LINEAR DISTRIBUTION DIAGRAM

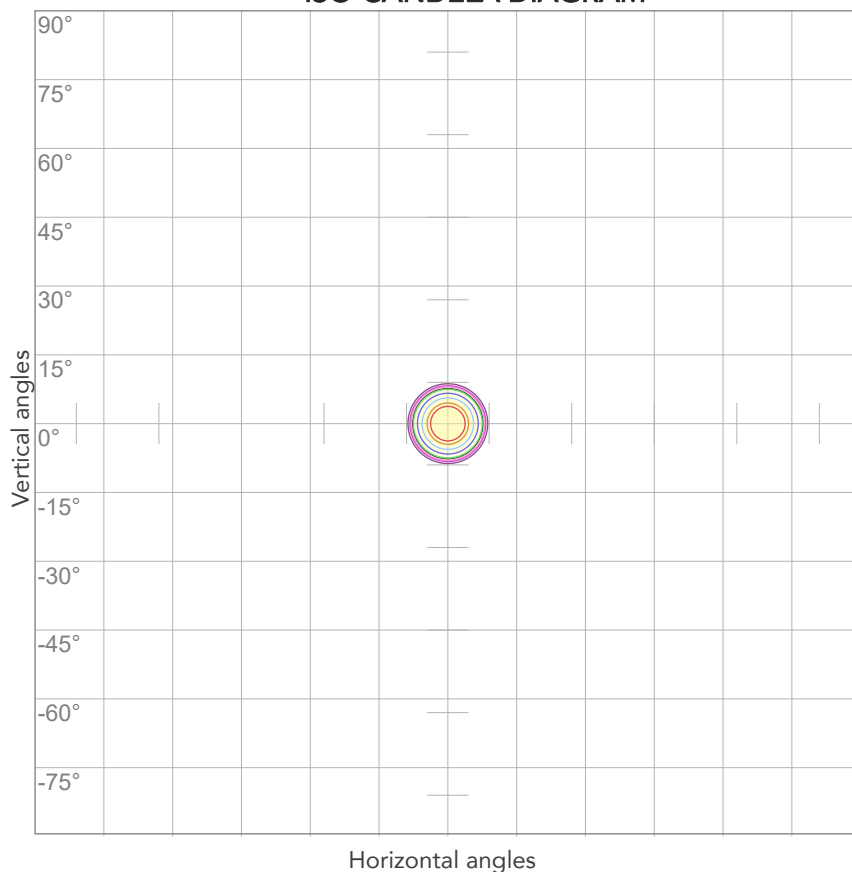


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 226V | 0,218A | 19,7W | 0,4 | 10lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



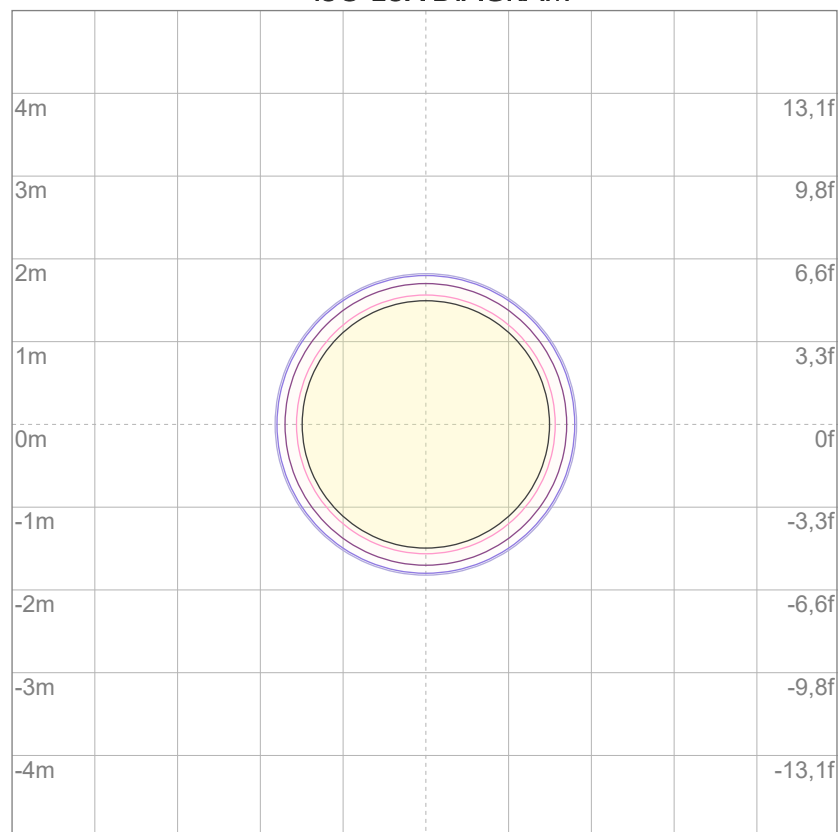
| | |
|-----|---------|
| 10% | 359 cd |
| 20% | 718 cd |
| 30% | 1077 cd |
| 40% | 1435 cd |
| 50% | 1794 cd |
| 60% | 2153 cd |
| 70% | 2512 cd |
| 80% | 2871 cd |

Conditions:

Number of c-planes: 2

Candela at center: 3589 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,08 lx |
| 5% | 1,79 lx |
| 10% | 3,59 lx |
| 30% | 10,8 lx |
| 50% | 17,9 lx |

Conditions:

Number of c-planes: 2

Lux at center: 35,9 lx

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



Total lumen output:

241 lm

Peak candela output:

4273 cd

Light quality:

CRI: 95,5

Color temperature:

2884 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

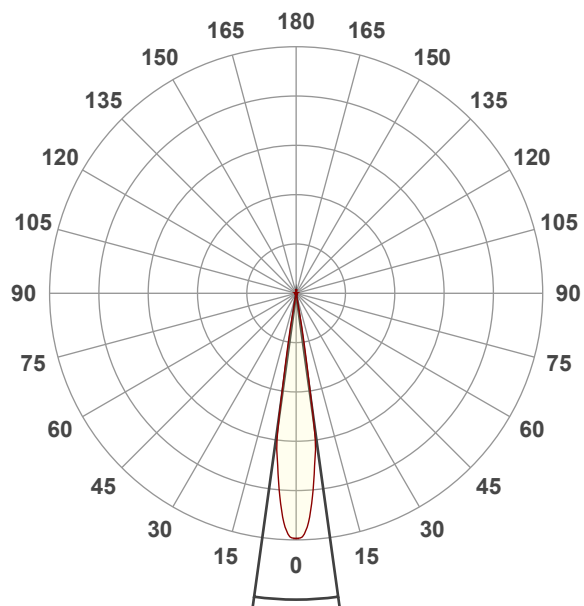
2800K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:41:43

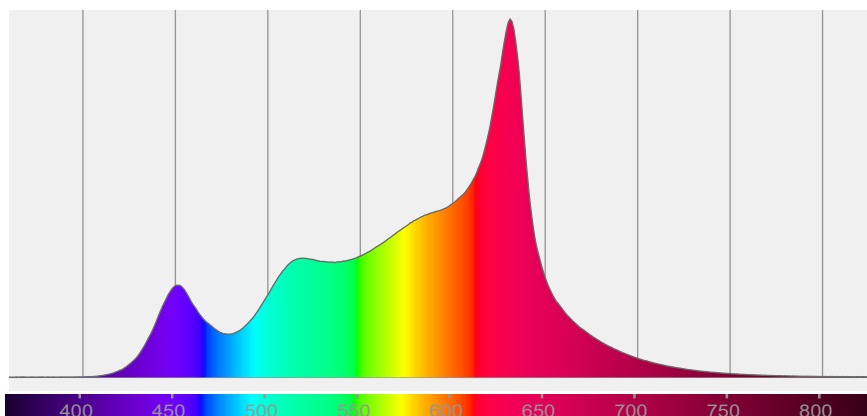


Beam angle 50%: 15,8°

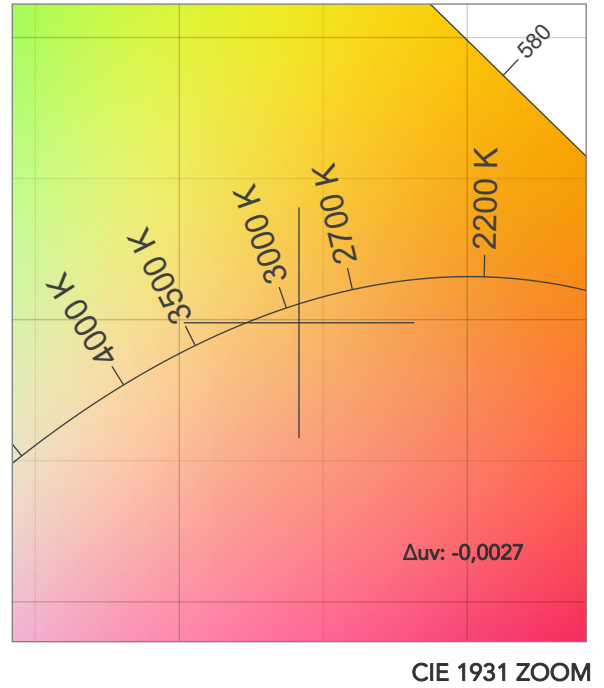
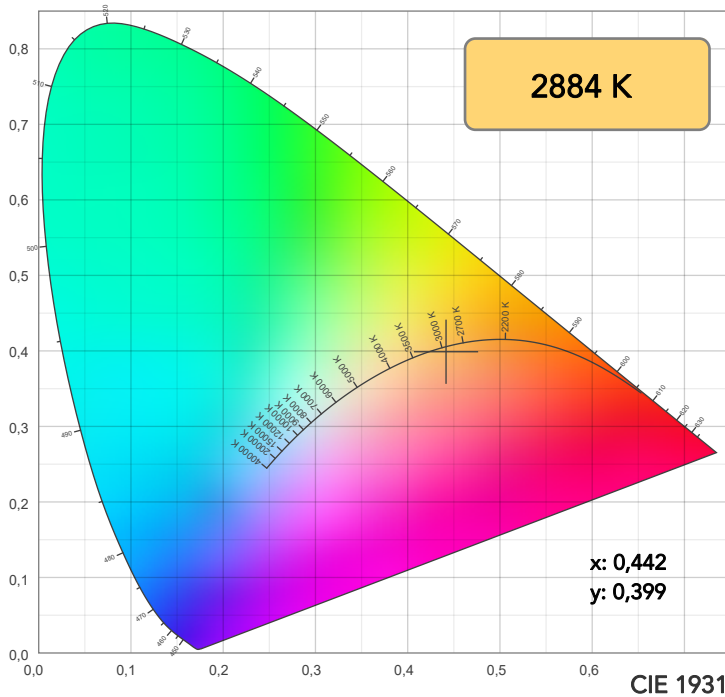
Field angle 10%: 19,7°

Cut off angle 2.5%: 20,8°

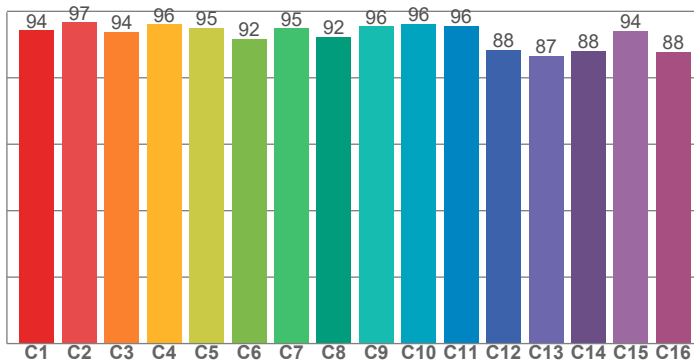
Spectra



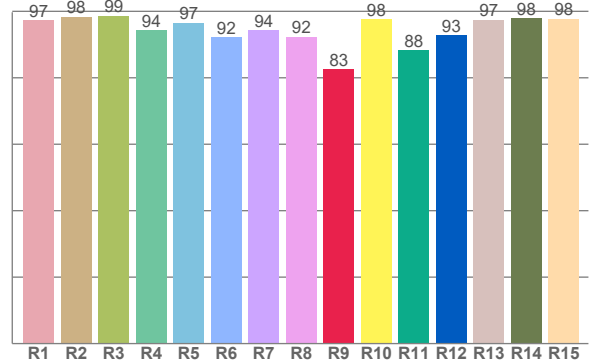
COLOR DETAILS



TM30: 93,4



CRI: 95,5 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 97,3 | 98,4 | 98,7 | 94,4 | 96,6 | 92,3 | 94,3 | 92,4 | 82,6 | 97,6 | 88,4 | 92,9 | 97,4 | 97,9 | 97,7 |

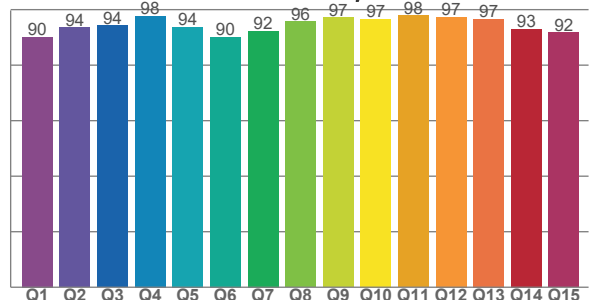
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,2 | 96,6 | 93,9 | 96,1 | 95,0 | 91,7 | 94,9 | 92,2 | 95,5 | 96,1 | 95,6 | 88,4 | 86,5 | 88,1 | 94,2 | 87,8 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 90,2 | 93,6 | 94,3 | 97,7 | 93,7 | 90,1 | 92,3 | 95,7 | 97,2 | 96,7 | 97,9 | 97,3 | 96,6 | 93,0 | 91,8 |

CQS: 93,7



COLOR PARAMETERS

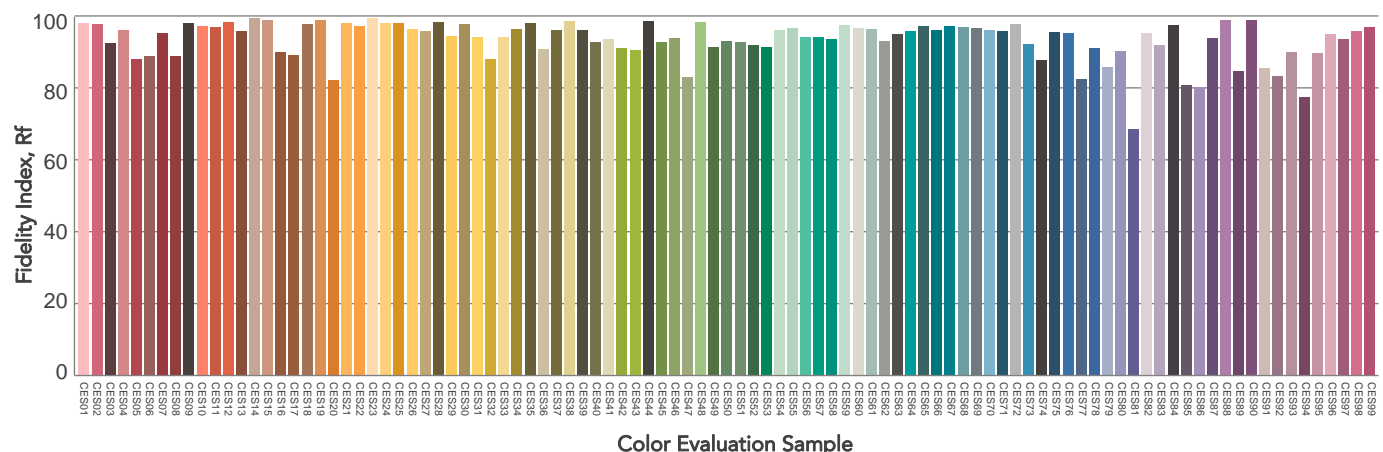
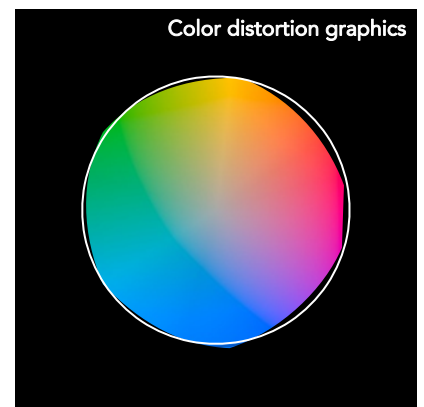
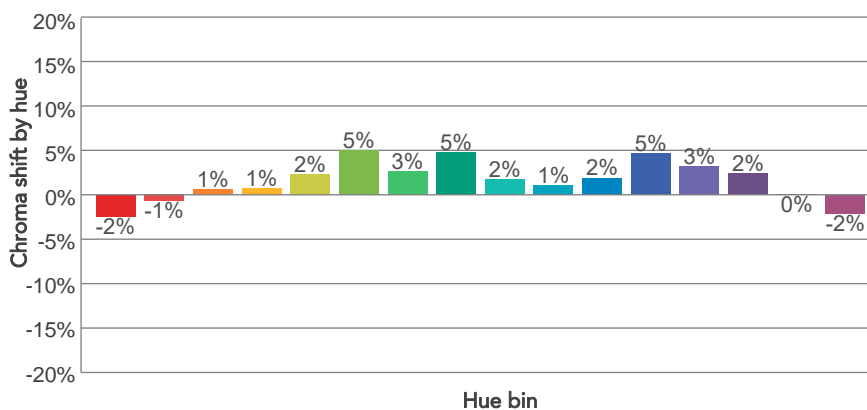
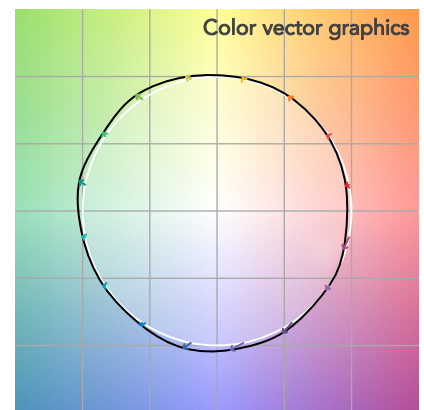
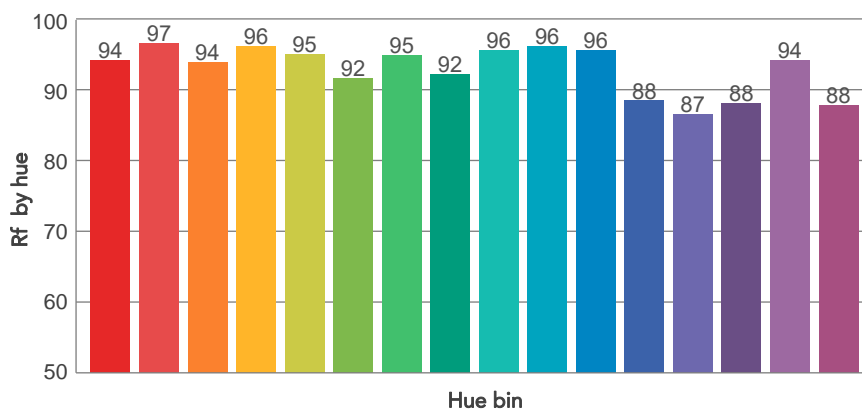
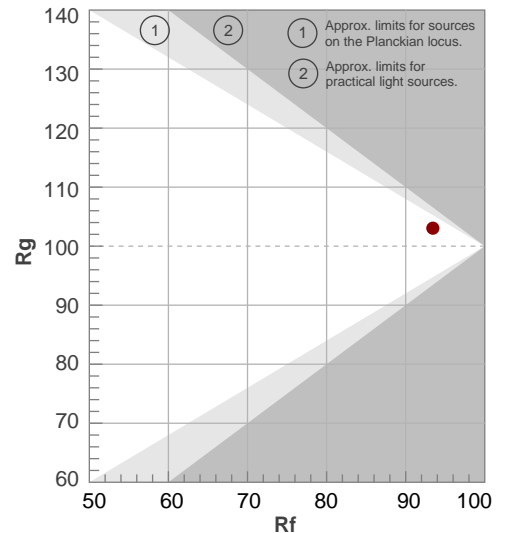
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 2884 K | 95,5 | 82,6 | 93,4 | 103,0 | 93,7 | 84 | 0,442 | 0,399 | -0,0027 |

TM30 DETAILS

Rf 93,4
Fidelity index Rf

Rg 103,0
Gammut index

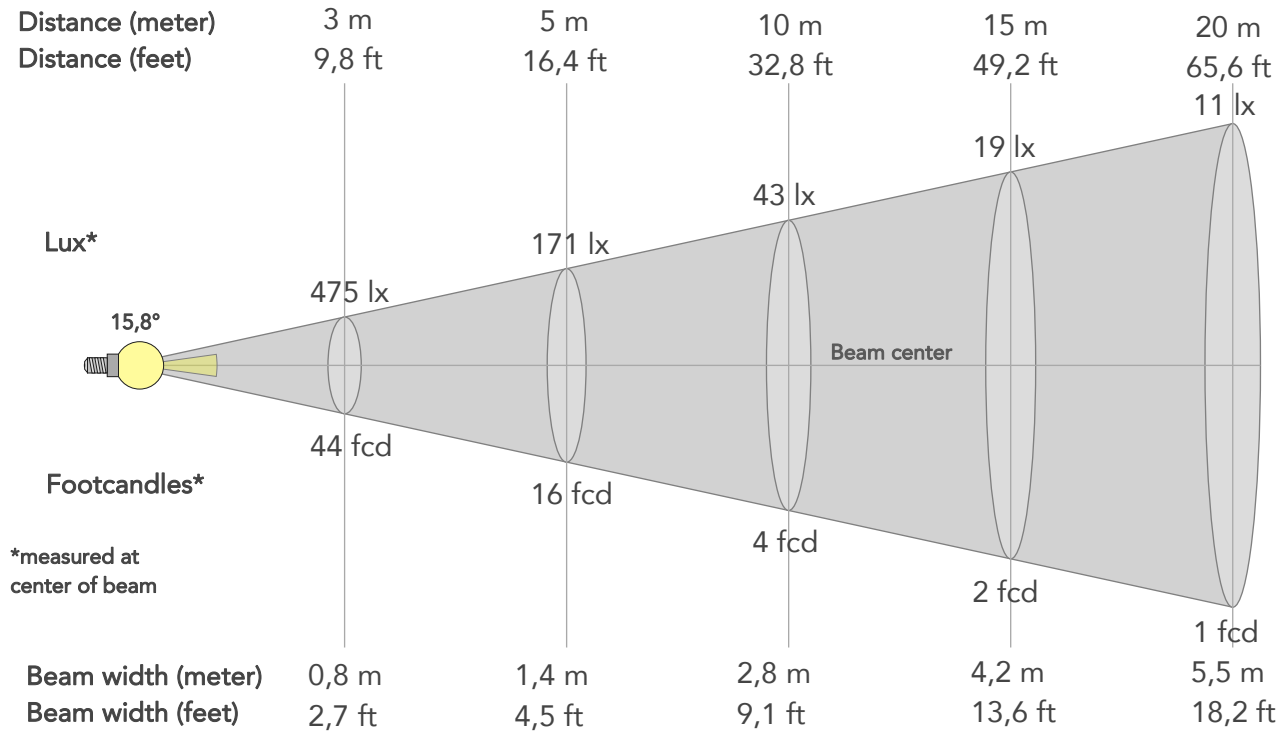
| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|------|
| | | Chroma | Hue |
| 1 | 94 | -2% | 0% |
| 2 | 97 | -1% | 1% |
| 3 | 94 | 1% | 3% |
| 4 | 96 | 1% | 1% |
| 5 | 95 | 2% | 3% |
| 6 | 92 | 5% | 2% |
| 7 | 95 | 3% | -2% |
| 8 | 92 | 5% | -2% |
| 9 | 96 | 2% | -1% |
| 10 | 96 | 1% | -1% |
| 11 | 96 | 2% | 1% |
| 12 | 88 | 5% | -4% |
| 13 | 87 | 3% | -10% |
| 14 | 88 | 2% | -9% |
| 15 | 94 | 0% | -3% |
| 16 | 88 | -2% | -9% |



BEAM DETAILS



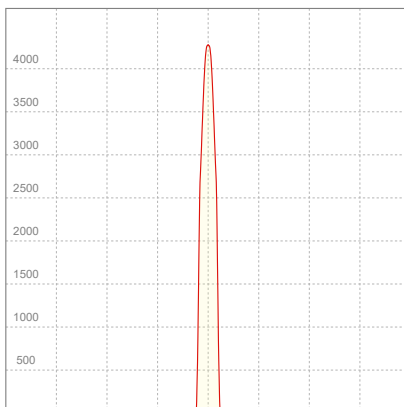
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 15,8° | 19,7° | 20,8° | 98,1% | 97,7% |



BEAM INTENSITIES AND WIDTHS

| Distance | 1m | 2m | 3m | 4m | 5m | 7,5m | 10m | 15m | 20m | 25m | 30m | 40m | 50m |
|-----------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Distance | 3,3ft | 6,6ft | 9,8ft | 13,1ft | 16,4ft | 24,6ft | 32,8ft | 49,2ft | 65,6ft | 82ft | 98,4ft | 131,2ft | 164ft |
| Lux | 4273lx | 1068lx | 475lx | 267lx | 171lx | 76lx | 43lx | 19lx | 11lx | 7lx | 5lx | 3lx | 2lx |
| Footcand. | 397fcd | 99fcd | 44fcd | 25fcd | 16fcd | 7fcd | 4fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,8m | 1,1m | 1,4m | 2,1m | 2,8m | 4,2m | 5,5m | 6,9m | 8,3m | 11,1m | 13,9m |
| Beam wid. | 0,9ft | 1,8ft | 2,7ft | 3,6ft | 4,5ft | 6,8ft | 9,1ft | 13,6ft | 18,2ft | 22,7ft | 27,3ft | 36,3ft | 45,4ft |

LINEAR DISTRIBUTION DIAGRAM

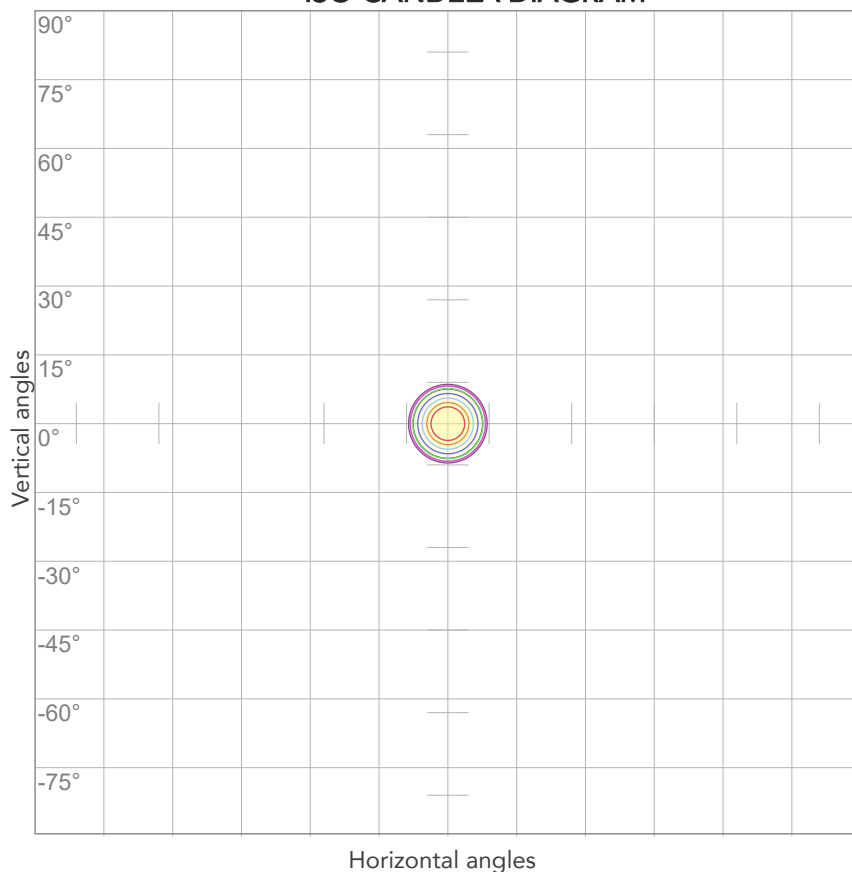


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 226V | 0,256A | 25,3W | 0,44 | 10lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



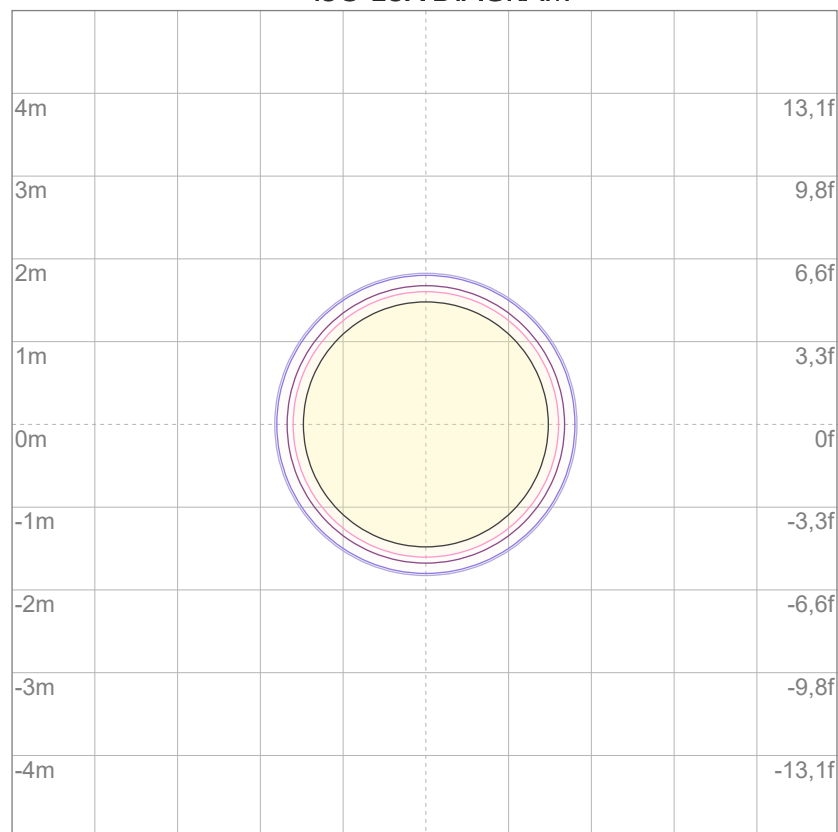
| | |
|-----|---------|
| 10% | 427 cd |
| 20% | 855 cd |
| 30% | 1282 cd |
| 40% | 1709 cd |
| 50% | 2136 cd |
| 60% | 2564 cd |
| 70% | 2991 cd |
| 80% | 3418 cd |

Conditions:

Number of c-planes: 2

Candela at center: 4273 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,28 lx |
| 5% | 2,14 lx |
| 10% | 4,27 lx |
| 30% | 12,8 lx |
| 50% | 21,4 lx |

Conditions:

Number of c-planes: 2

Lux at center: 42,7 lx

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



Total lumen output:

250 lm

Peak candela output:

4411 cd

Light quality:

CRI: 95,5

Color temperature:

3222 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

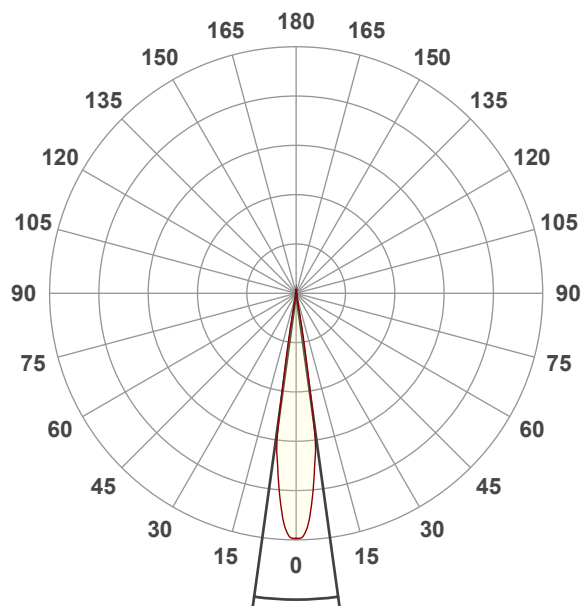
3200K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 10:56:38

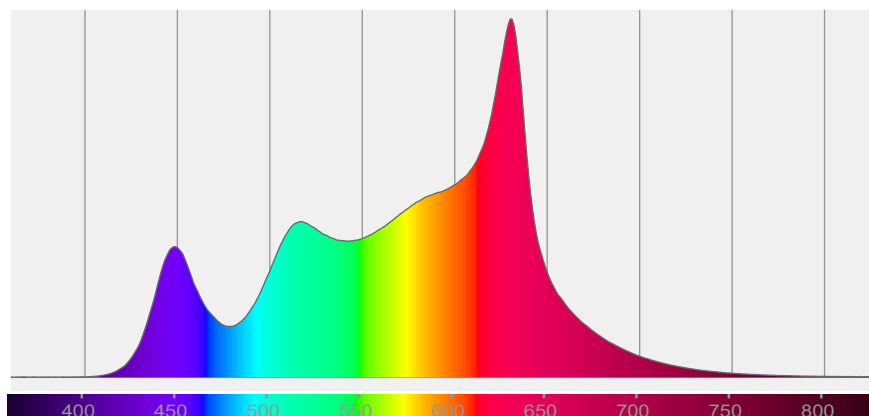


Beam angle 50%: 15,8°

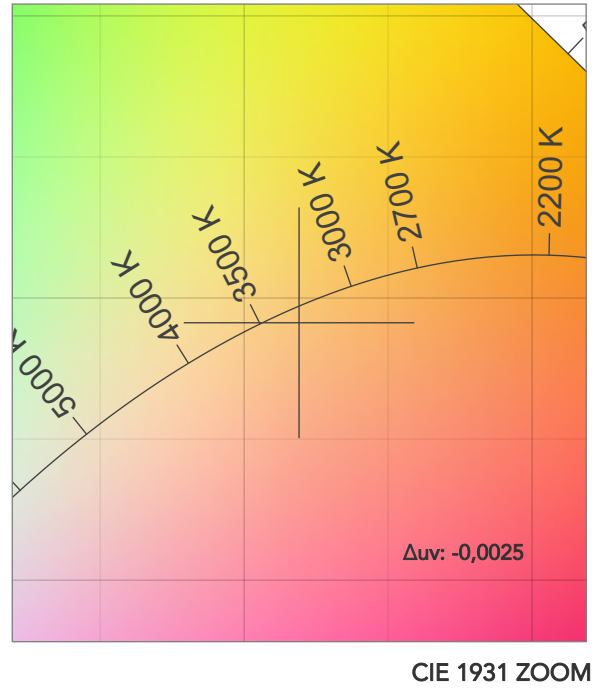
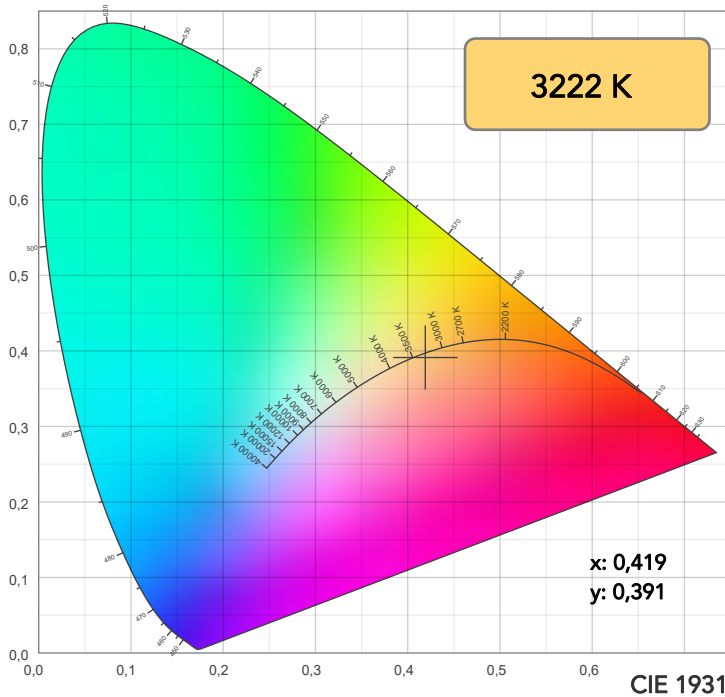
Field angle 10%: 19,7°

Cut off angle 2.5%: 20,8°

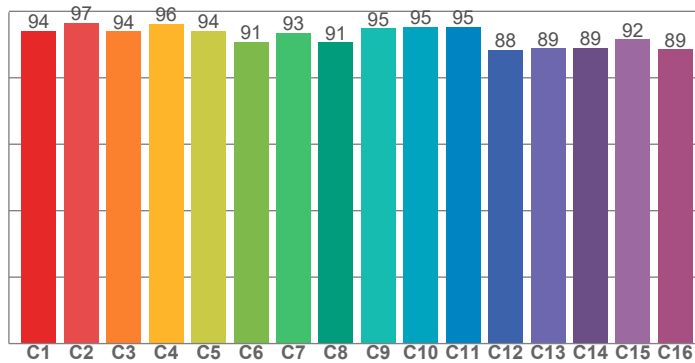
Spectra



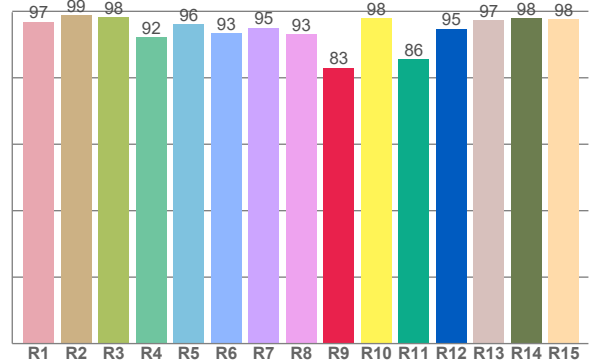
COLOR DETAILS



TM30: 93,3



CRI: 95,5 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 96,9 | 98,8 | 98,2 | 92,2 | 96,0 | 93,3 | 95,1 | 93,2 | 83,0 | 98,0 | 85,5 | 94,8 | 97,3 | 97,8 | 97,6 |

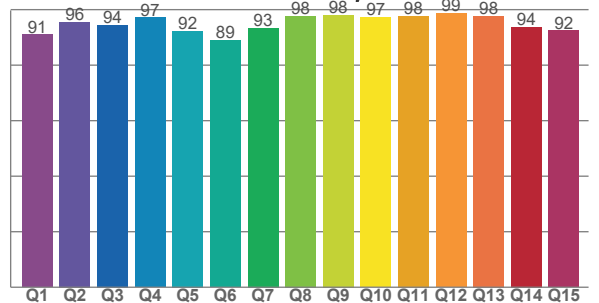
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,2 | 96,6 | 94,0 | 96,3 | 94,1 | 90,8 | 93,5 | 90,7 | 94,9 | 95,3 | 95,3 | 88,3 | 88,9 | 89,1 | 91,6 | 88,5 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 91,0 | 95,6 | 94,4 | 97,2 | 92,2 | 88,9 | 93,4 | 97,6 | 98,1 | 97,2 | 97,7 | 98,7 | 97,8 | 93,8 | 92,4 |

CQS: 94,1



COLOR PARAMETERS

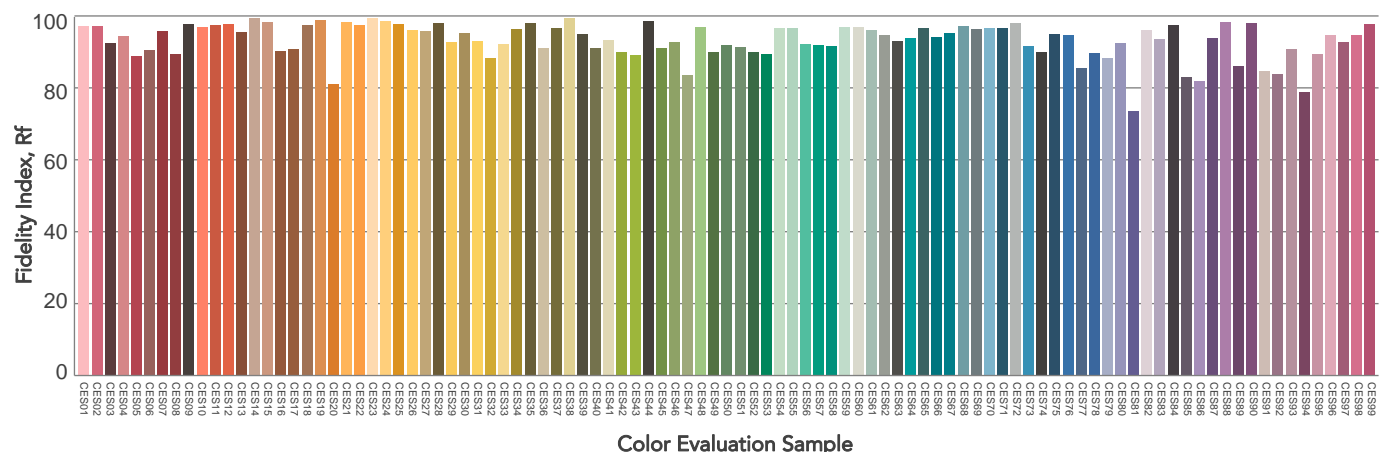
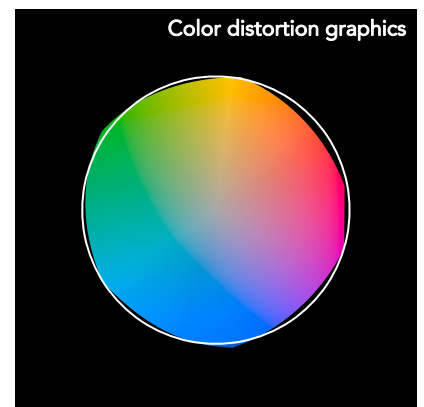
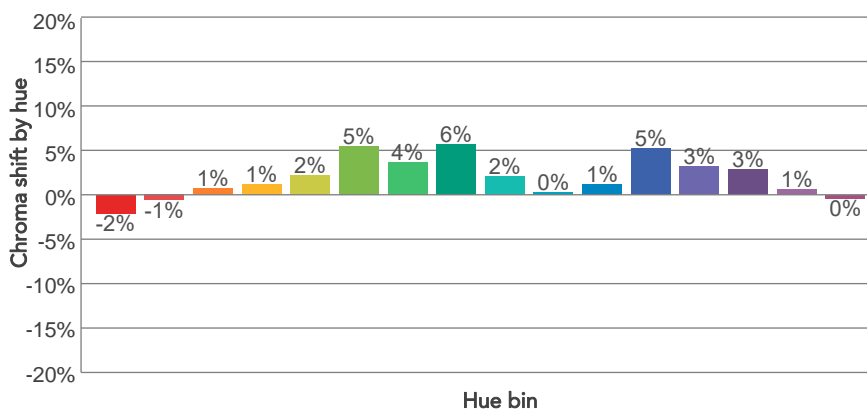
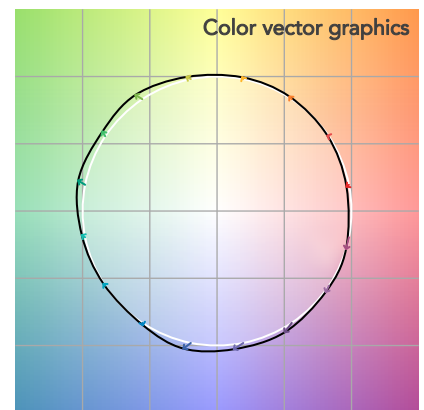
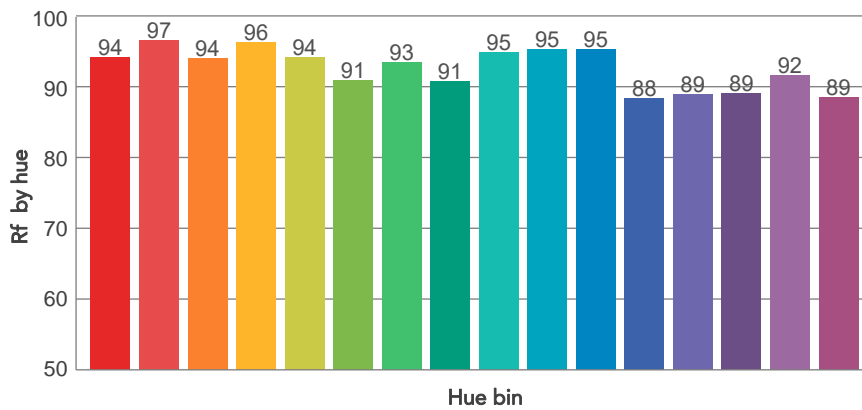
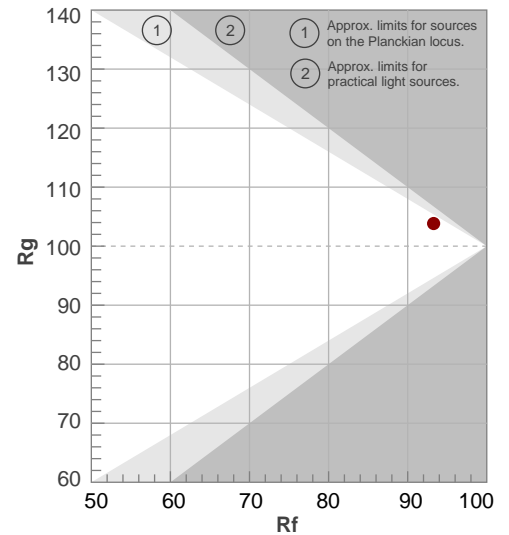
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 3222 K | 95,5 | 83,0 | 93,3 | 103,8 | 94,1 | 84 | 0,419 | 0,391 | -0,0025 |

TM30 DETAILS

Rf 93,3
Fidelity index Rf

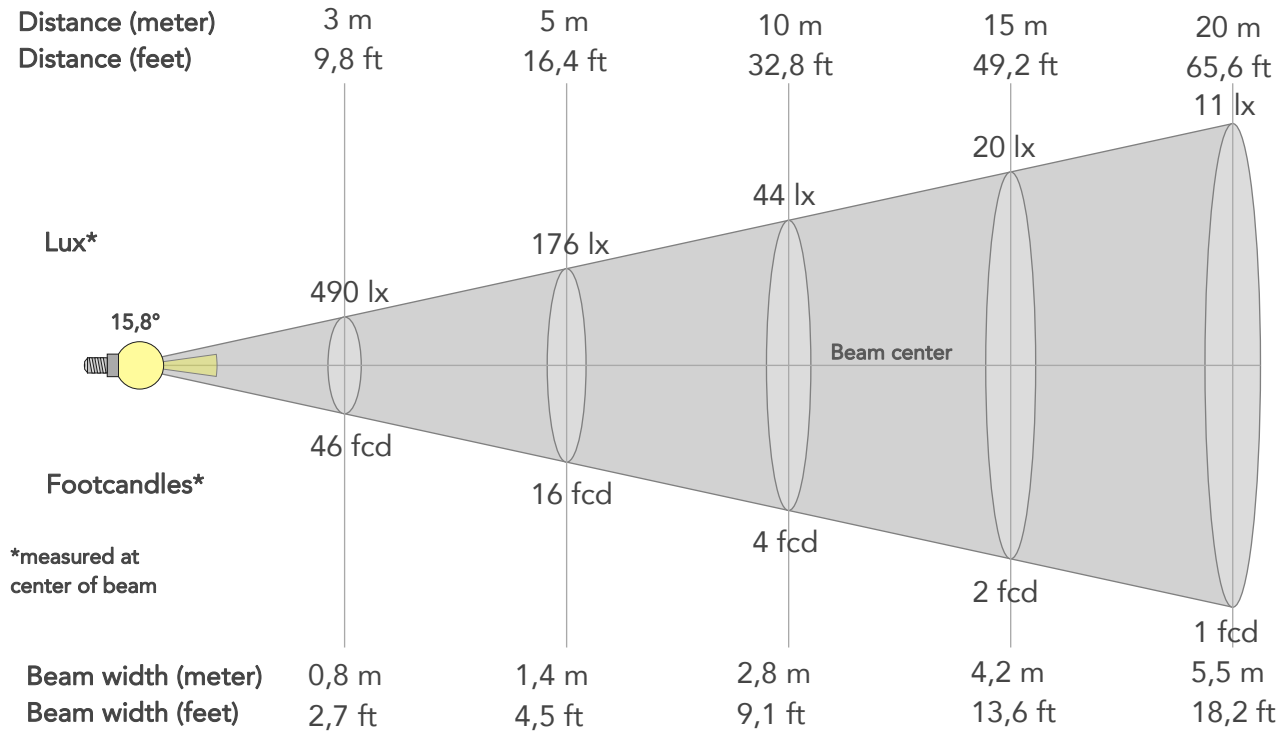
Rg 103,8
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 94 | -2% | -1% |
| 2 | 97 | -1% | 1% |
| 3 | 94 | 1% | 3% |
| 4 | 96 | 1% | 1% |
| 5 | 94 | 2% | 3% |
| 6 | 91 | 5% | 2% |
| 7 | 93 | 4% | -2% |
| 8 | 91 | 6% | -2% |
| 9 | 95 | 2% | -2% |
| 10 | 95 | 0% | -2% |
| 11 | 95 | 1% | 1% |
| 12 | 88 | 5% | -4% |
| 13 | 89 | 3% | -8% |
| 14 | 89 | 3% | -8% |
| 15 | 92 | 1% | -5% |
| 16 | 89 | 0% | -9% |



BEAM DETAILS

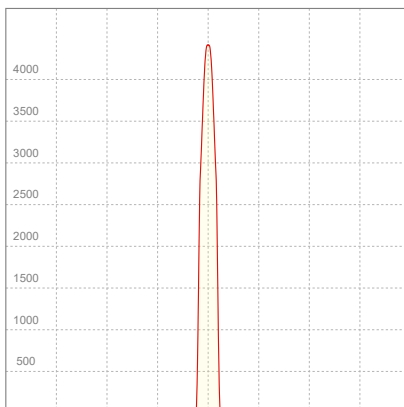
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 15,8° | 19,7° | 20,8° | 97,9% | 97,4% |



BEAM INTENSITIES AND WIDTHS

| Distance | 1m | 2m | 3m | 4m | 5m | 7,5m | 10m | 15m | 20m | 25m | 30m | 40m | 50m |
|-----------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Distance | 3,3ft | 6,6ft | 9,8ft | 13,1ft | 16,4ft | 24,6ft | 32,8ft | 49,2ft | 65,6ft | 82ft | 98,4ft | 131,2ft | 164ft |
| Lux | 4411lx | 1103lx | 490lx | 276lx | 176lx | 78lx | 44lx | 20lx | 11lx | 7lx | 5lx | 3lx | 2lx |
| Footcand. | 410fcd | 102fcd | 46fcd | 26fcd | 16fcd | 7fcd | 4fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,8m | 1,1m | 1,4m | 2,1m | 2,8m | 4,2m | 5,5m | 6,9m | 8,3m | 11,1m | 13,8m |
| Beam wid. | 0,9ft | 1,8ft | 2,7ft | 3,6ft | 4,5ft | 6,8ft | 9,1ft | 13,6ft | 18,2ft | 22,7ft | 27,2ft | 36,3ft | 45,4ft |

LINEAR DISTRIBUTION DIAGRAM

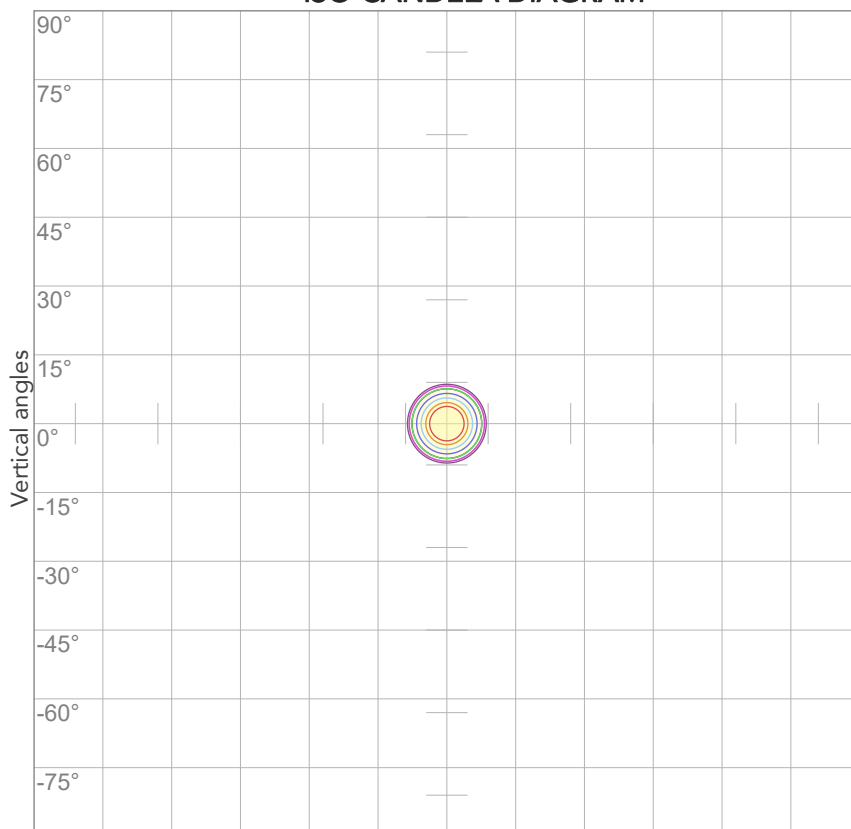


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 227V | 0,246A | 25,7W | 0,46 | 10lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



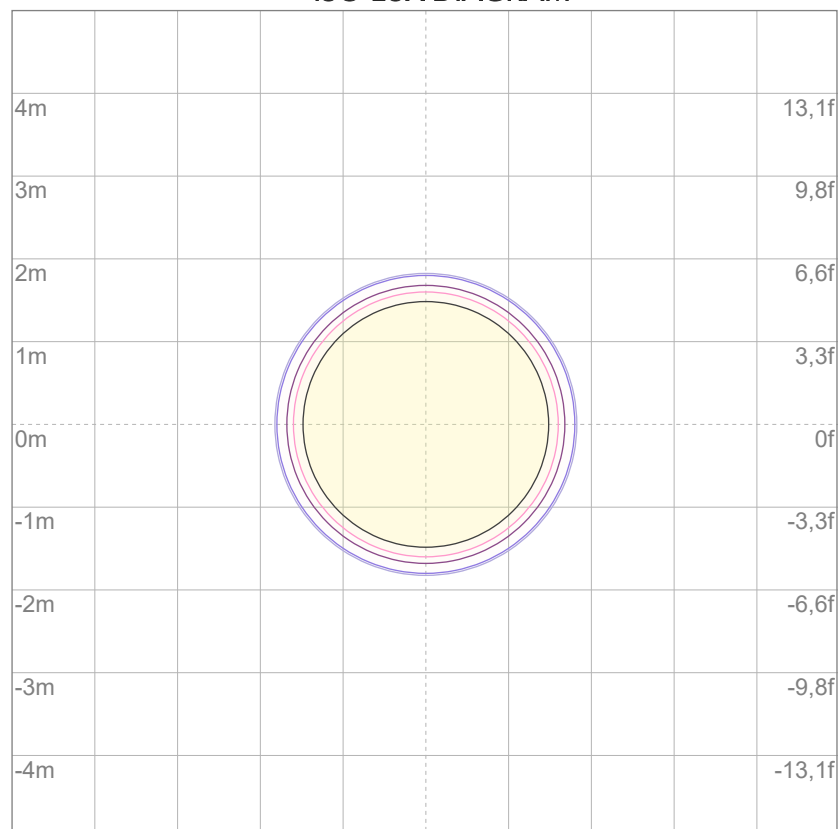
| | |
|-----|---------|
| 10% | 441 cd |
| 20% | 882 cd |
| 30% | 1323 cd |
| 40% | 1764 cd |
| 50% | 2205 cd |
| 60% | 2646 cd |
| 70% | 3087 cd |
| 80% | 3528 cd |

Conditions:

Number of c-planes: 2

Candela at center: 4411 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,32 lx |
| 5% | 2,21 lx |
| 10% | 4,41 lx |
| 30% | 13,2 lx |
| 50% | 22,1 lx |

Conditions:

Number of c-planes: 2

Lux at center: 44,1 lx

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



Total lumen output:

264 lm

Peak candela output:

4548 cd

Light quality:

CRI: 94,7

Color temperature:

4038 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

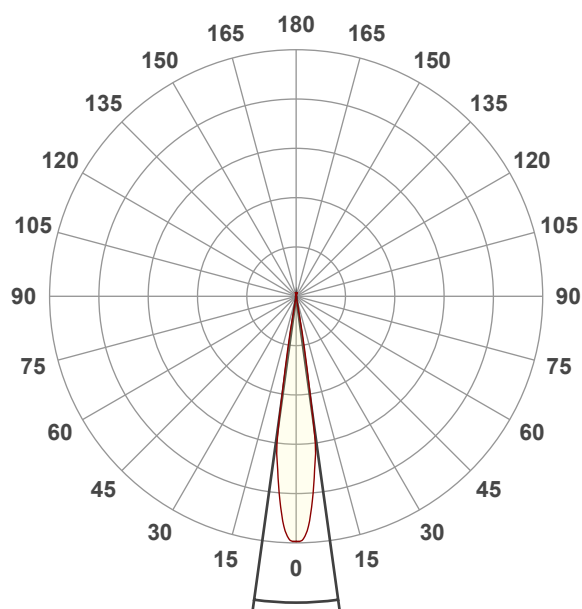
4000K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:07:55

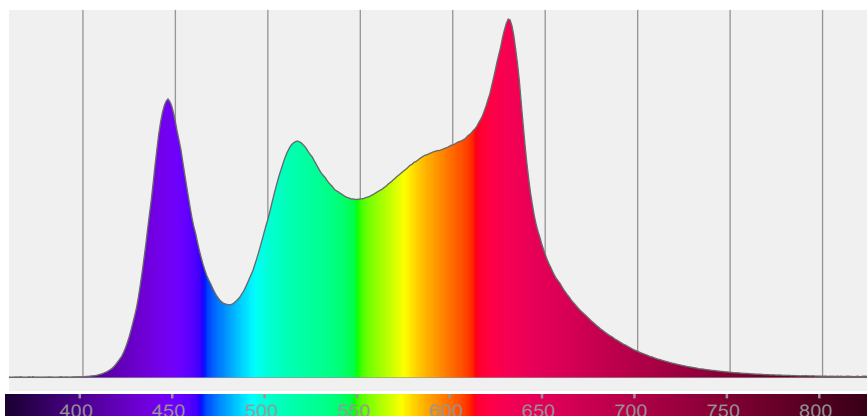


Beam angle 50%: 15,8°

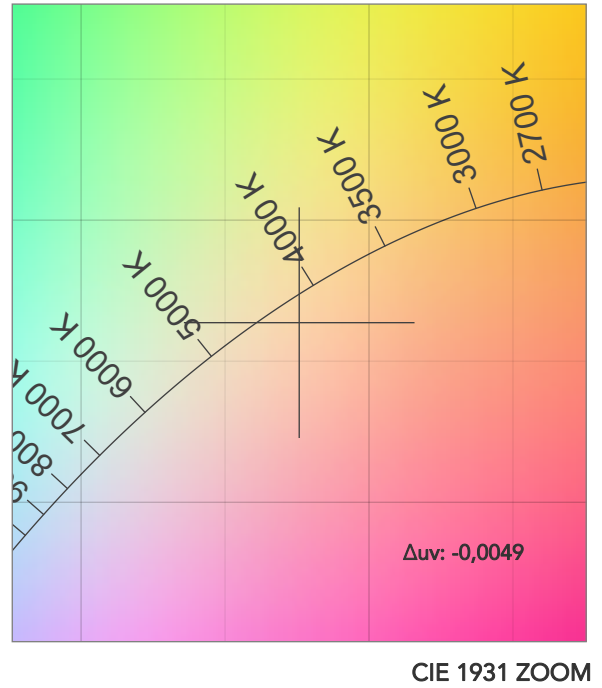
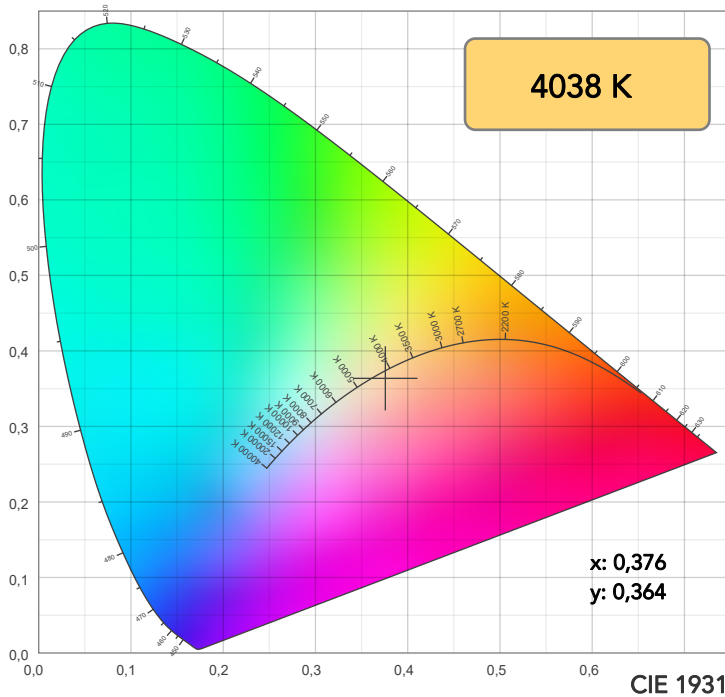
Field angle 10%: 19,7°

Cut off angle 2.5%: 20,8°

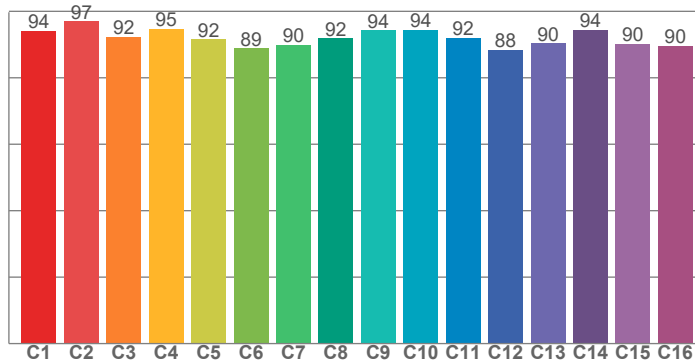
Spectra



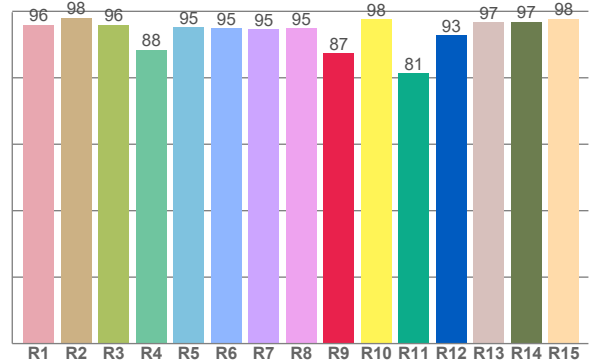
COLOR DETAILS



TM30: 92,3



CRI: 94,7 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 96,0 | 98,1 | 96,0 | 88,5 | 95,2 | 94,8 | 94,5 | 95,0 | 87,4 | 97,5 | 81,4 | 92,8 | 96,7 | 96,9 | 97,8 |

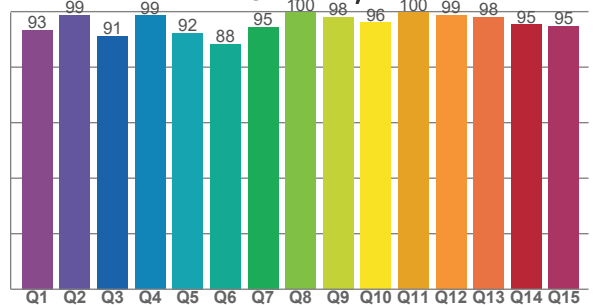
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,1 | 96,9 | 92,2 | 94,7 | 91,6 | 88,8 | 89,9 | 91,8 | 94,3 | 94,4 | 92,1 | 88,4 | 90,4 | 94,5 | 90,3 | 89,6 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93,4 | 98,9 | 91,1 | 98,6 | 92,3 | 88,3 | 94,5 | 99,6 | 98,1 | 96,1 | 99,6 | 98,8 | 98,0 | 95,3 | 94,7 |

CQS: 94,7



COLOR PARAMETERS

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 4038 K | 94,7 | 87,4 | 92,3 | 105,4 | 94,7 | 82 | 0,376 | 0,364 | -0,0049 |

TM30 DETAILS

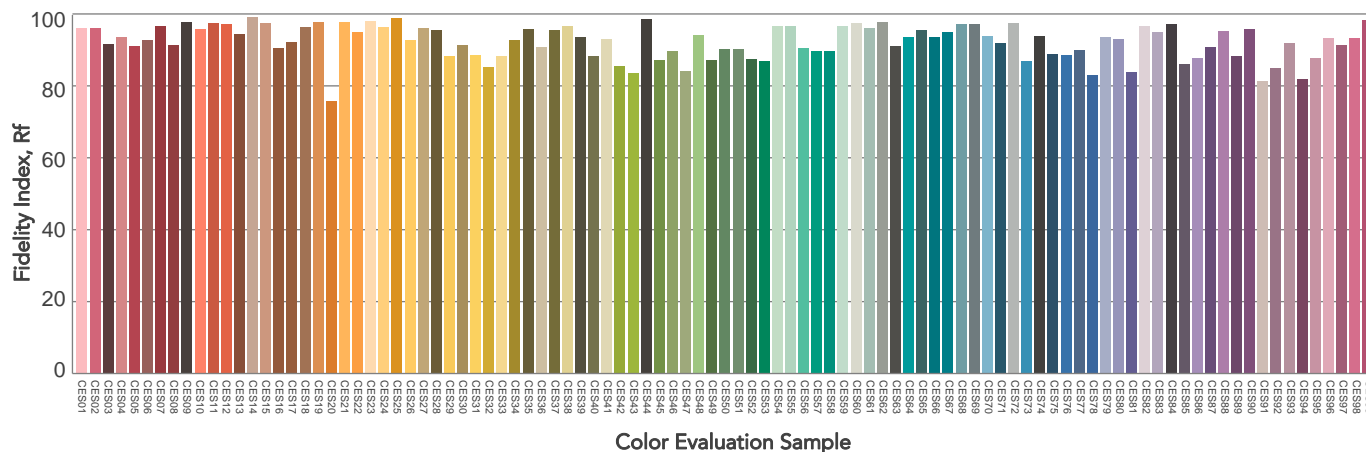
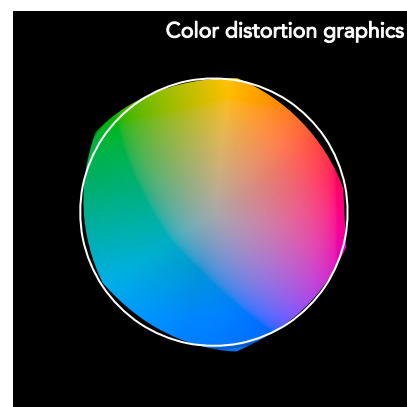
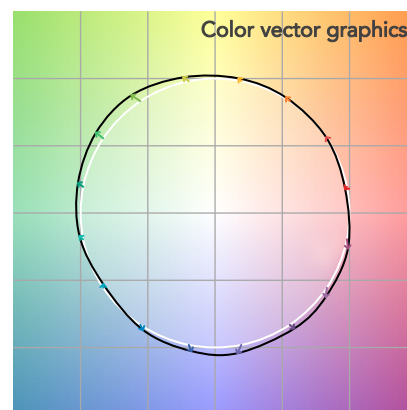
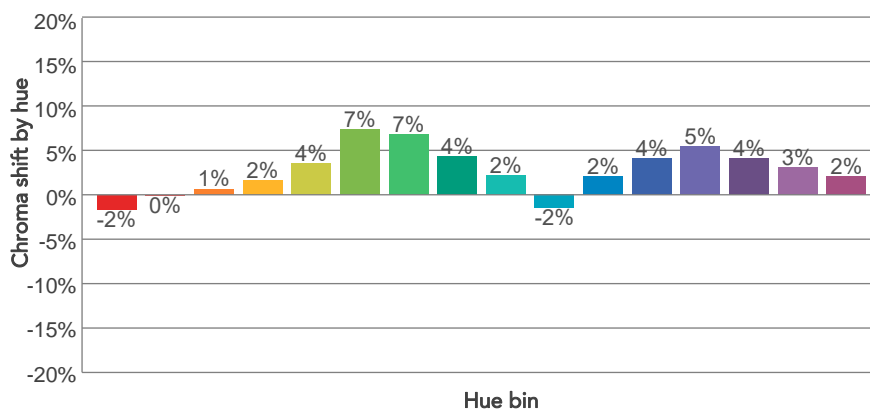
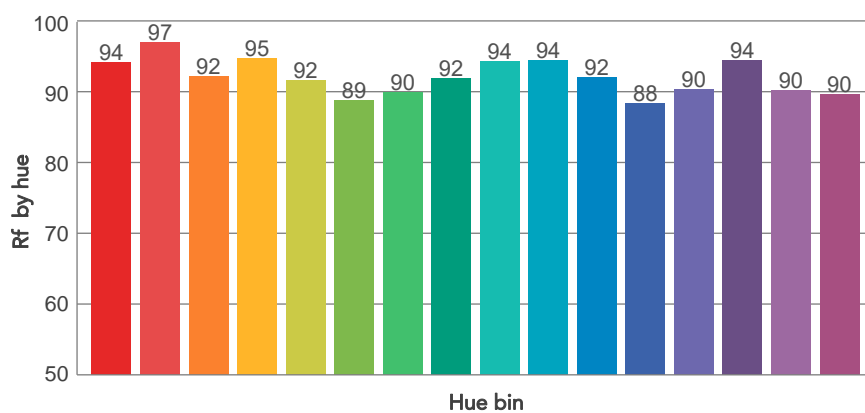
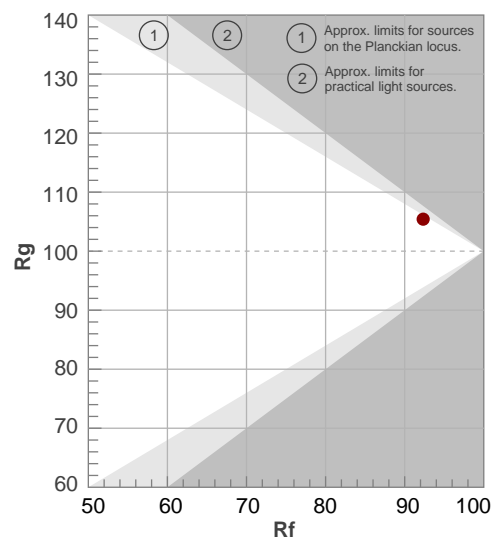
Rf 92,3

Fidelity index R_f

Rg 105,4

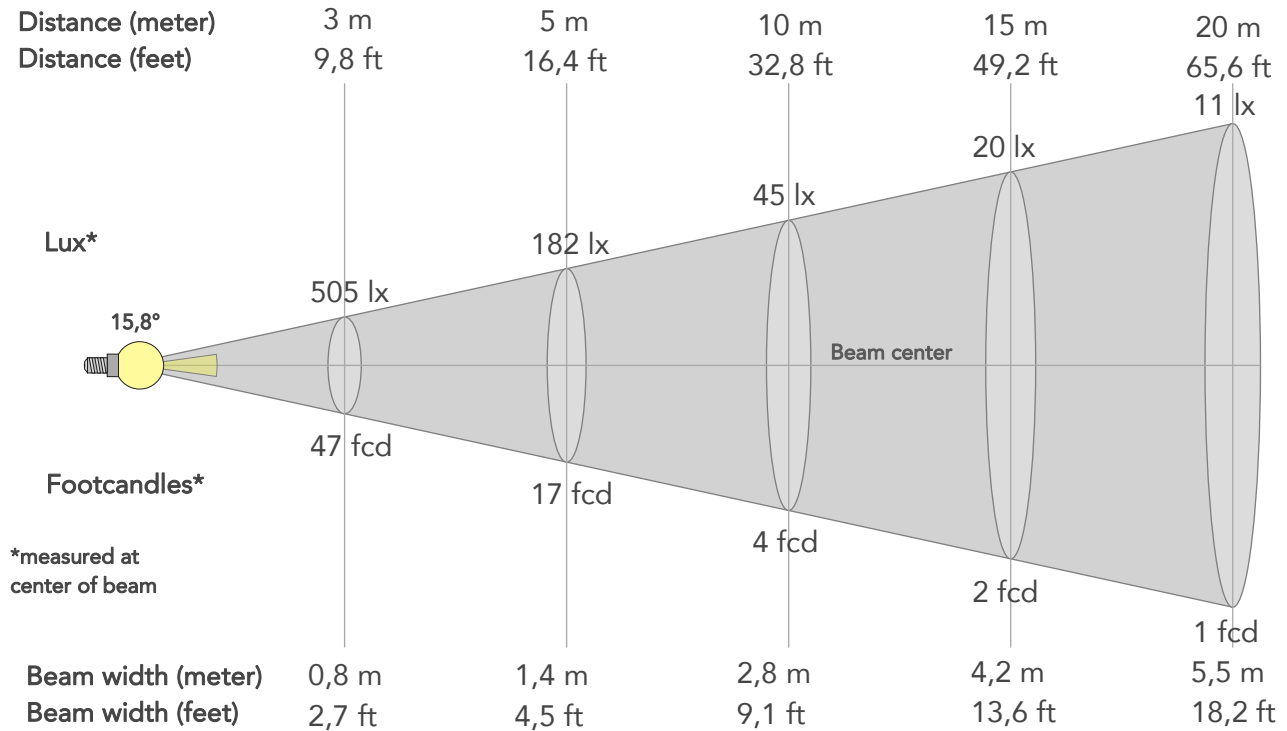
Gammut index

| | | Graphic shifts (%) | |
|---------|-------|--------------------|-----|
| Hue Bin | R_f | Chroma | Hue |
| 1 | 94 | -2% | -2% |
| 2 | 97 | 0% | 1% |
| 3 | 92 | 1% | 4% |
| 4 | 95 | 2% | 2% |
| 5 | 92 | 4% | 3% |
| 6 | 89 | 7% | 3% |
| 7 | 90 | 7% | 0% |
| 8 | 92 | 4% | -2% |
| 9 | 94 | 2% | -3% |
| 10 | 94 | -2% | -2% |
| 11 | 92 | 2% | 4% |
| 12 | 88 | 4% | 3% |
| 13 | 90 | 5% | -4% |
| 14 | 94 | 4% | 1% |
| 15 | 90 | 3% | -6% |
| 16 | 90 | 2% | -6% |



BEAM DETAILS

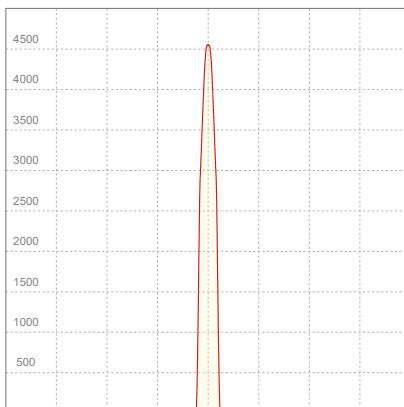
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 15,8° | 19,7° | 20,8° | 96,6% | 95,7% |



BEAM INTENSITIES AND WIDTHS

| Distance | 1m | 2m | 3m | 4m | 5m | 7,5m | 10m | 15m | 20m | 25m | 30m | 40m | 50m |
|-----------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Distance | 3,3ft | 6,6ft | 9,8ft | 13,1ft | 16,4ft | 24,6ft | 32,8ft | 49,2ft | 65,6ft | 82ft | 98,4ft | 131,2ft | 164ft |
| Lux | 4548lx | 1137lx | 505lx | 284lx | 182lx | 81lx | 45lx | 20lx | 11lx | 7lx | 5lx | 3lx | 2lx |
| Footcand. | 423fcd | 106fcd | 47fcd | 26fcd | 17fcd | 8fcd | 4fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,8m | 1,1m | 1,4m | 2,1m | 2,8m | 4,2m | 5,5m | 6,9m | 8,3m | 11,1m | 13,8m |
| Beam wid. | 0,9ft | 1,8ft | 2,7ft | 3,6ft | 4,5ft | 6,8ft | 9,1ft | 13,6ft | 18,2ft | 22,7ft | 27,2ft | 36,3ft | 45,4ft |

LINEAR DISTRIBUTION DIAGRAM

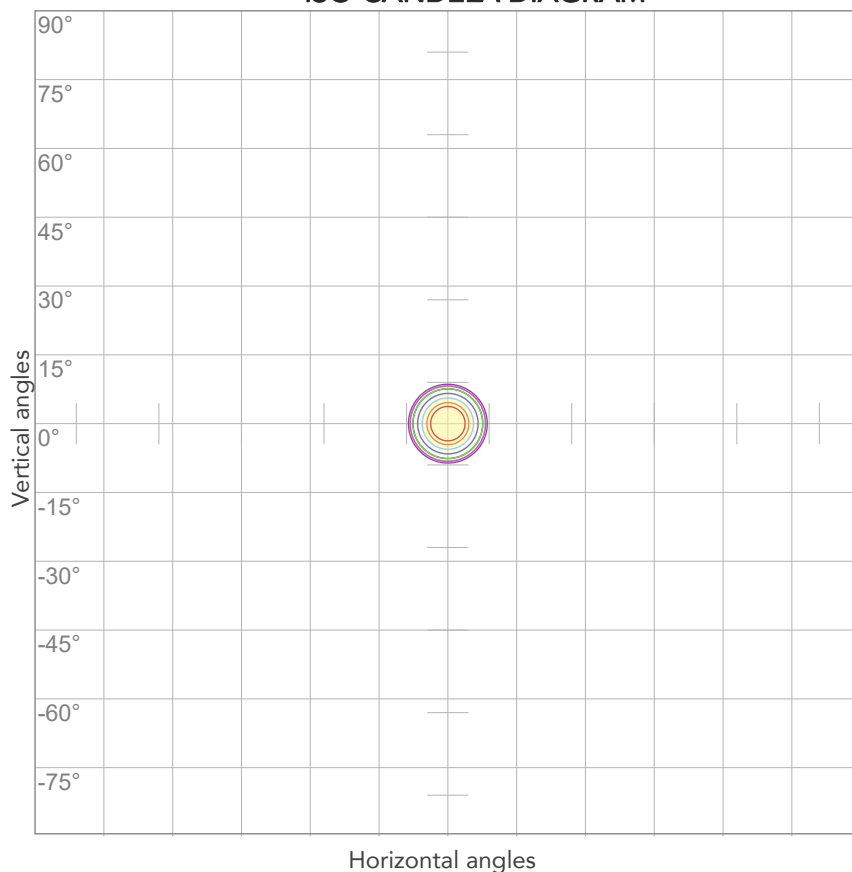


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Efficiency |
|---------------|---------------|-------------|----------|------------|
| 226V | 0,293A | 27,5W | 0,41 | 10lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



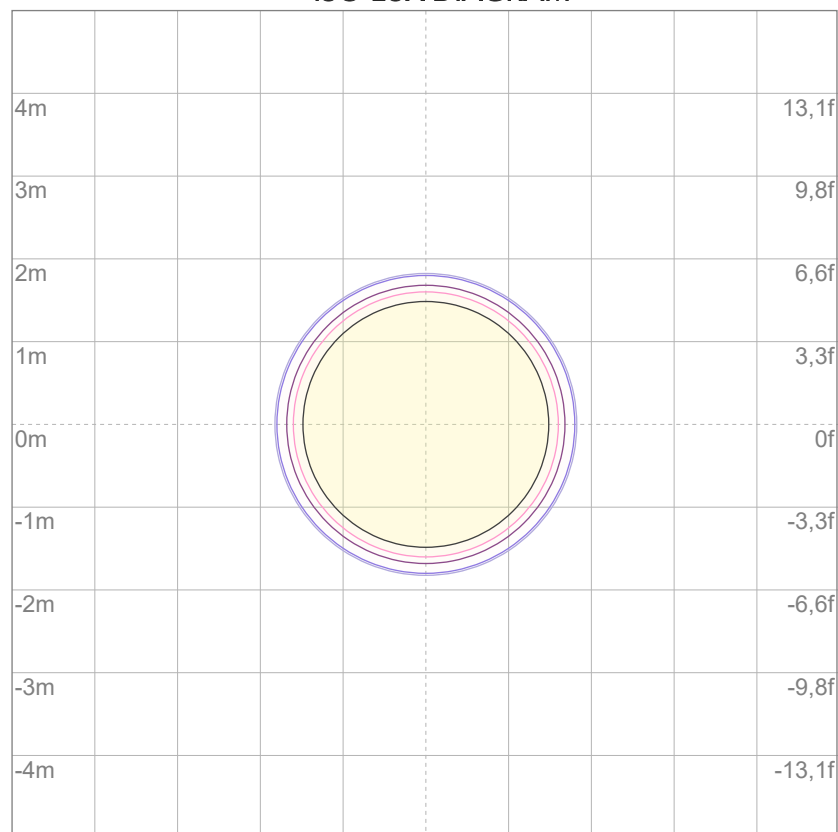
| | |
|-----|---------|
| 10% | 455 cd |
| 20% | 910 cd |
| 30% | 1364 cd |
| 40% | 1819 cd |
| 50% | 2274 cd |
| 60% | 2729 cd |
| 70% | 3184 cd |
| 80% | 3639 cd |

Conditions:

Number of c-planes: 2

Candela at center: 4548 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,36 lx |
| 5% | 2,27 lx |
| 10% | 4,55 lx |
| 30% | 13,6 lx |
| 50% | 22,7 lx |

Conditions:

Number of c-planes: 2

Lux at center: 45,5 lx

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



Total lumen output:

265 lm

Peak candela output:

4675 cd

Light quality:

CRI: 91,2

Color temperature:

5610 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

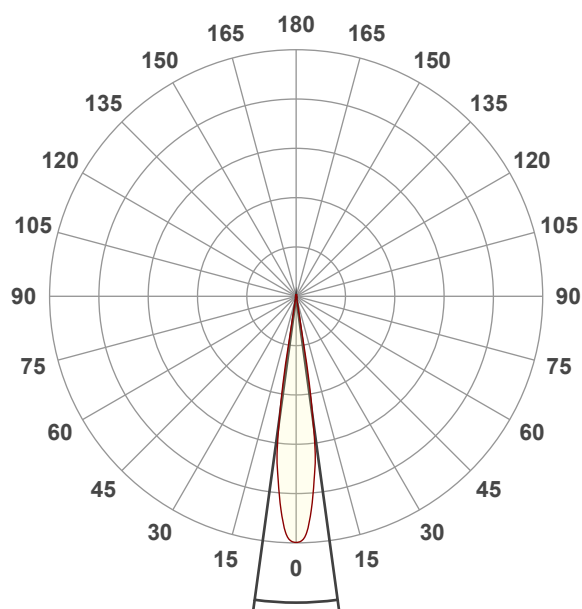
5600K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:11:00

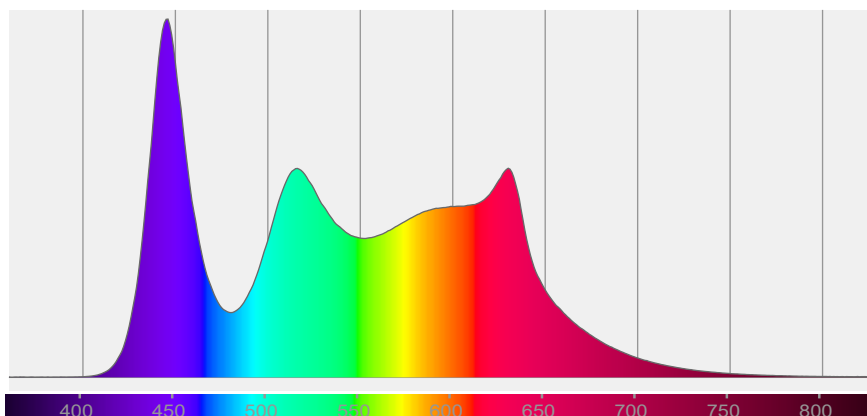


Beam angle 50%: 15,6°

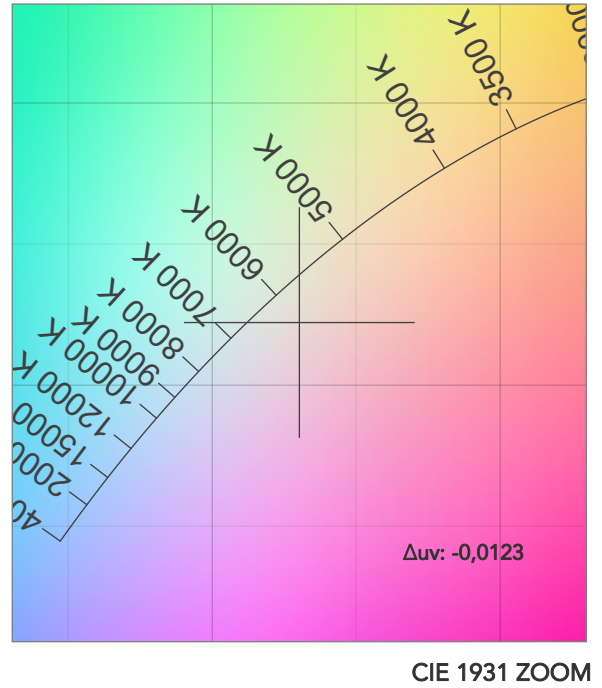
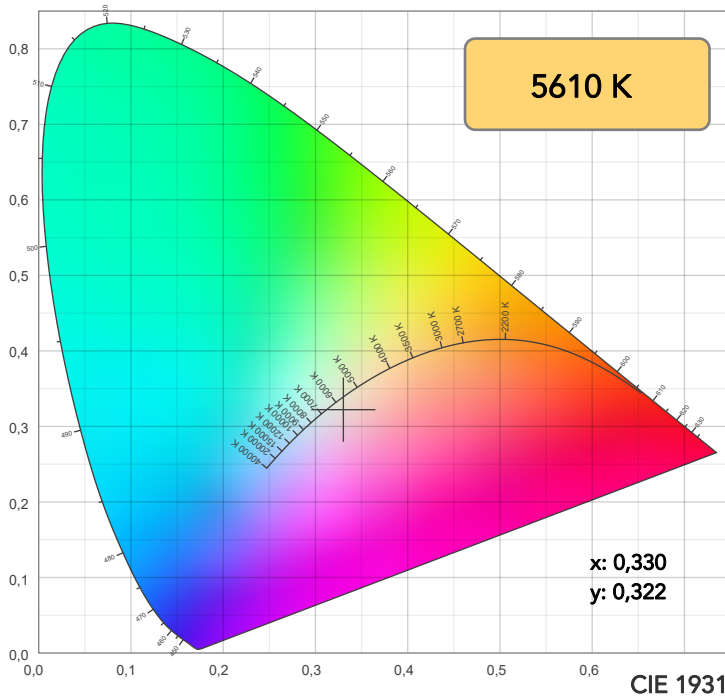
Field angle 10%: 19,6°

Cut off angle 2.5%: 21,2°

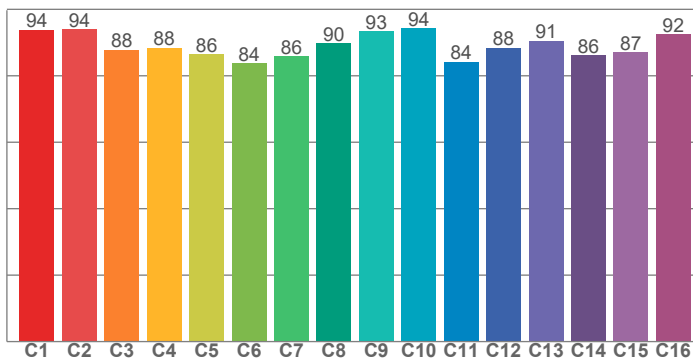
Spectra



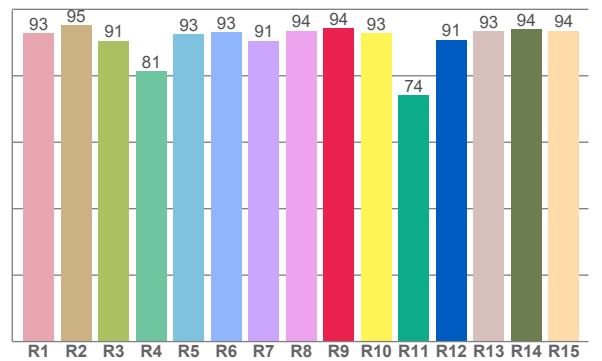
COLOR DETAILS



TM30: 88,9



CRI: 91,2 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92,7 | 95,2 | 90,5 | 81,3 | 92,6 | 93,1 | 90,6 | 93,5 | 94,3 | 92,9 | 74,1 | 90,9 | 93,5 | 93,9 | 93,5 |

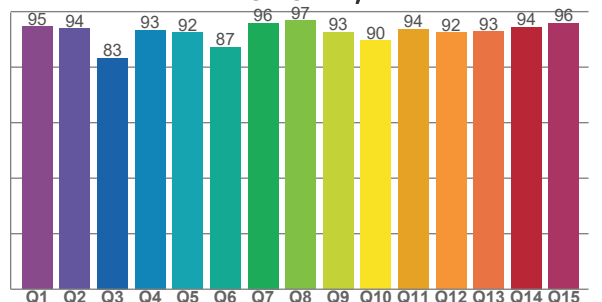
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93,8 | 93,9 | 87,7 | 88,3 | 86,4 | 83,7 | 85,8 | 89,8 | 93,4 | 94,3 | 84,1 | 88,4 | 90,5 | 86,1 | 87,1 | 92,5 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,6 | 93,9 | 83,2 | 93,3 | 92,4 | 87,3 | 95,8 | 96,8 | 92,6 | 89,6 | 93,7 | 92,5 | 92,8 | 94,5 | 95,8 |

CQS: 91,9



COLOR PARAMETERS

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 5610 K | 91,2 | 94,3 | 88,9 | 108,5 | 91,9 | 84 | 0,330 | 0,322 | -0,0123 |

TM30 DETAILS

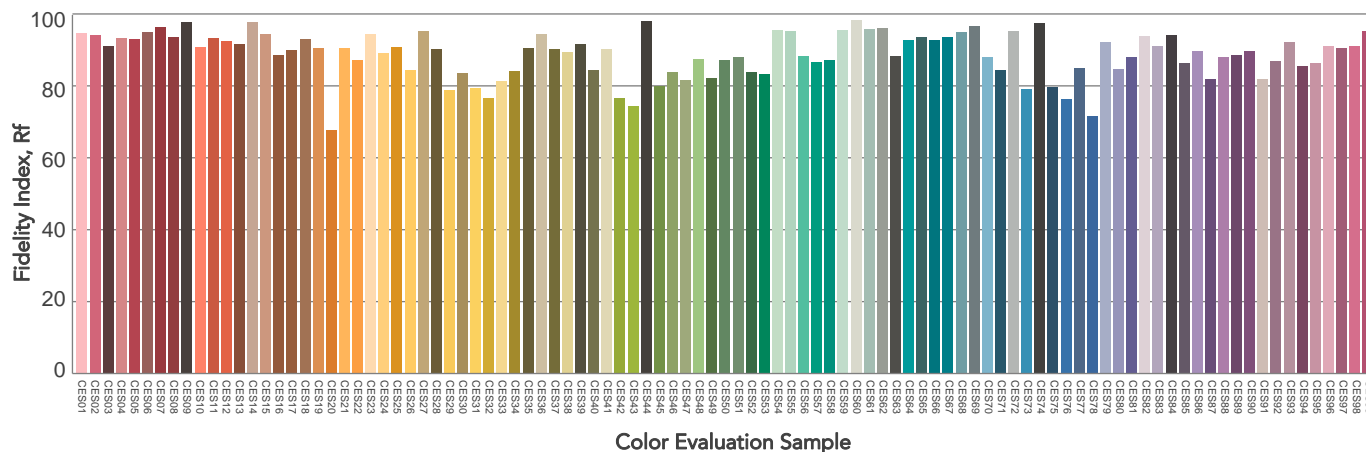
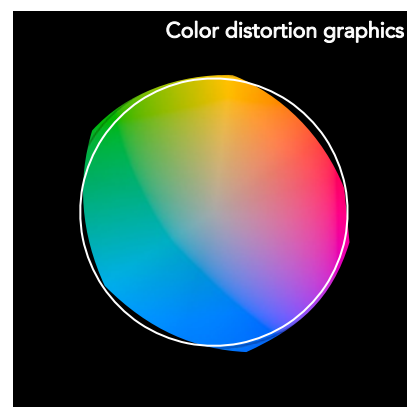
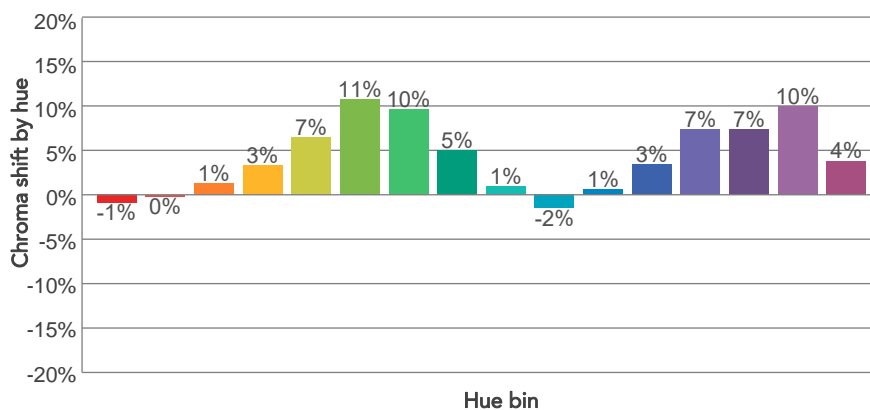
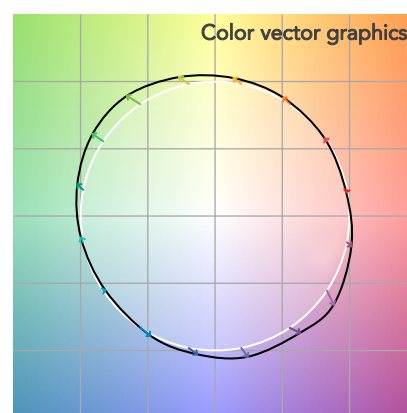
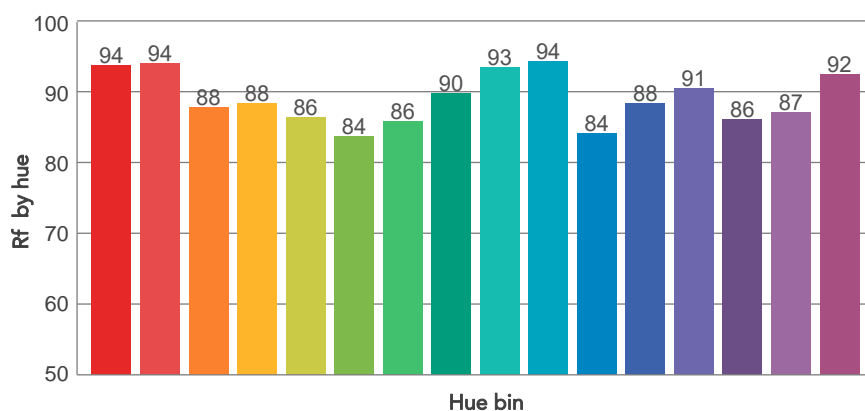
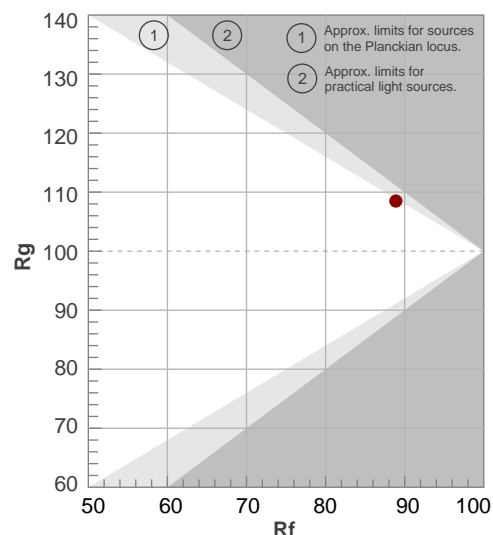
Rf 88,9

Fidelity index Rf

Rg 108,5

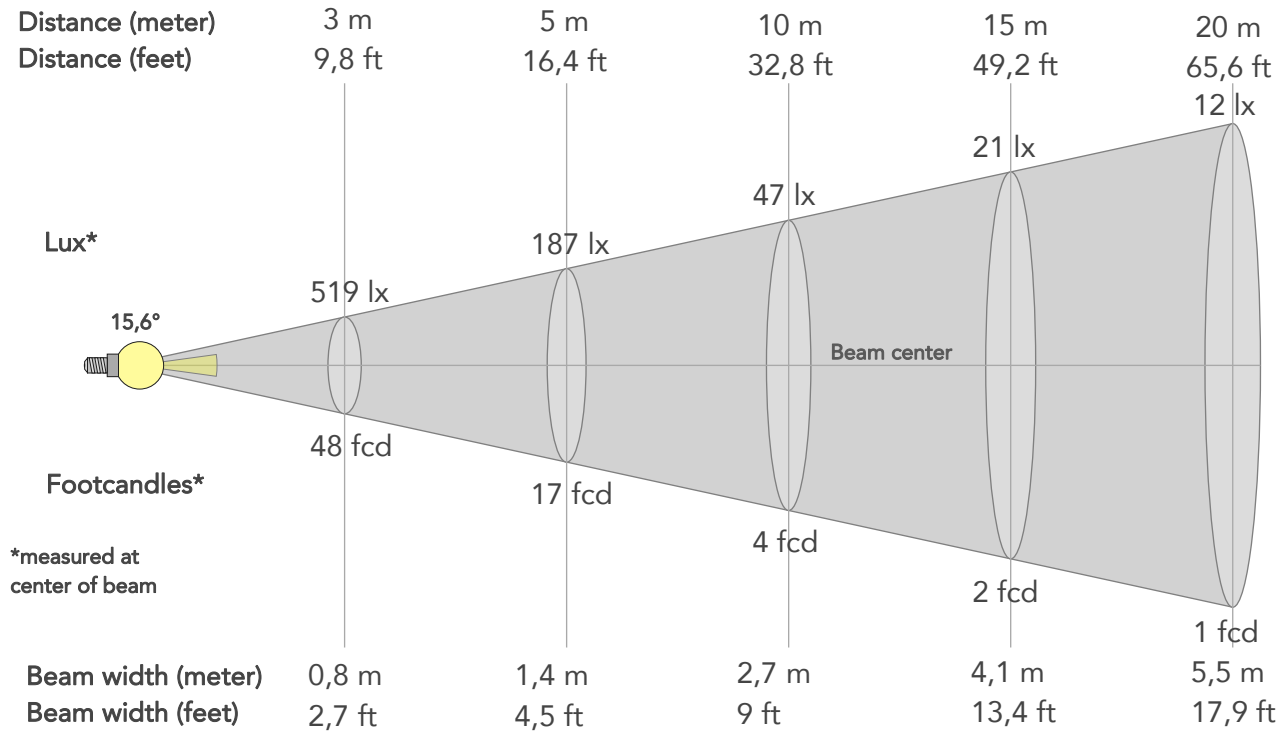
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 94 | -1% | -2% |
| 2 | 94 | 0% | 3% |
| 3 | 88 | 1% | 7% |
| 4 | 88 | 3% | 6% |
| 5 | 86 | 7% | 6% |
| 6 | 84 | 11% | 5% |
| 7 | 86 | 10% | 0% |
| 8 | 90 | 5% | -3% |
| 9 | 93 | 1% | -4% |
| 10 | 94 | -2% | 0% |
| 11 | 84 | 1% | 9% |
| 12 | 88 | 3% | 7% |
| 13 | 91 | 7% | 3% |
| 14 | 86 | 7% | 4% |
| 15 | 87 | 10% | -6% |
| 16 | 92 | 4% | -2% |



BEAM DETAILS

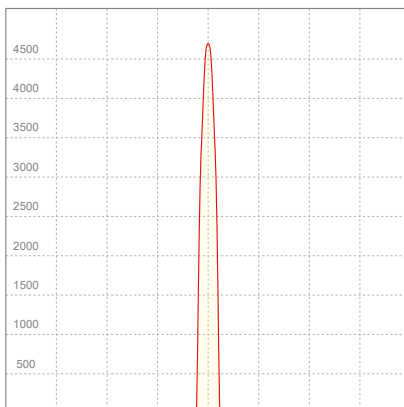
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 15,6° | 19,6° | 21,2° | 98,5% | 98,1% |



BEAM INTENSITIES AND WIDTHS

| Distance | 1m | 2m | 3m | 4m | 5m | 7,5m | 10m | 15m | 20m | 25m | 30m | 40m | 50m |
|-----------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Distance | 3,3ft | 6,6ft | 9,8ft | 13,1ft | 16,4ft | 24,6ft | 32,8ft | 49,2ft | 65,6ft | 82ft | 98,4ft | 131,2ft | 164ft |
| Lux | 4675lx | 1169lx | 519lx | 292lx | 187lx | 83lx | 47lx | 21lx | 12lx | 7lx | 5lx | 3lx | 2lx |
| Footcand. | 434fcd | 109fcd | 48fcd | 27fcd | 17fcd | 8fcd | 4fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,5m | 0,8m | 1,1m | 1,4m | 2,1m | 2,7m | 4,1m | 5,5m | 6,8m | 8,2m | 10,9m | 13,7m |
| Beam wid. | 0,9ft | 1,8ft | 2,7ft | 3,6ft | 4,5ft | 6,7ft | 9ft | 13,4ft | 17,9ft | 22,4ft | 26,9ft | 35,9ft | 44,8ft |

LINEAR DISTRIBUTION DIAGRAM

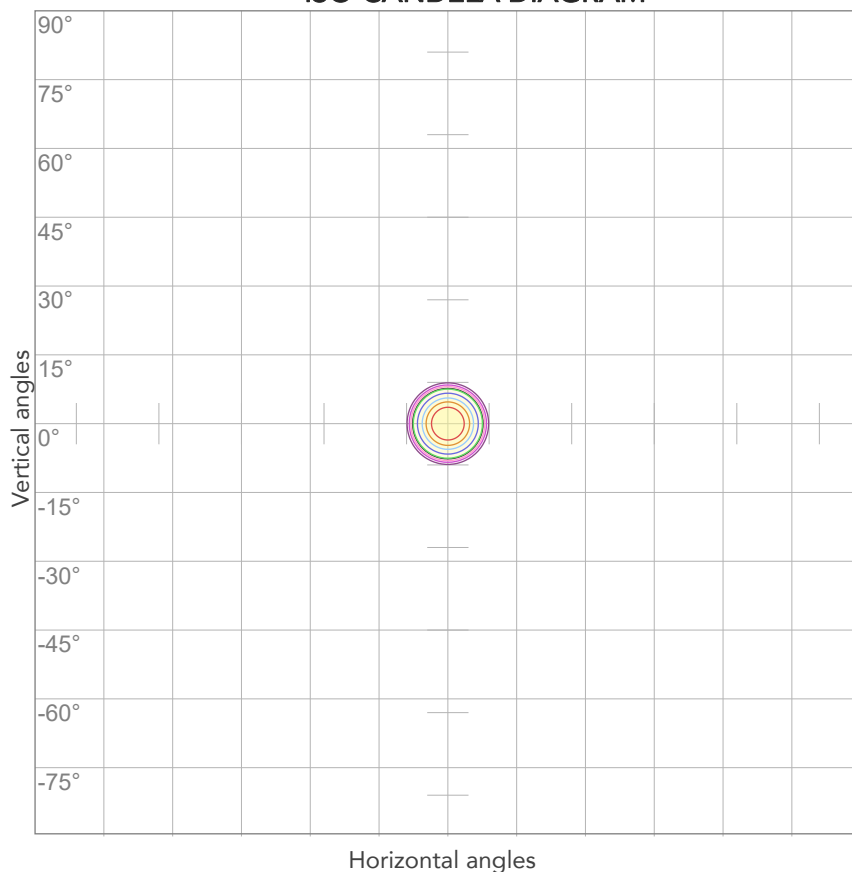


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 226V | 0,302A | 29,8W | 0,44 | 9lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



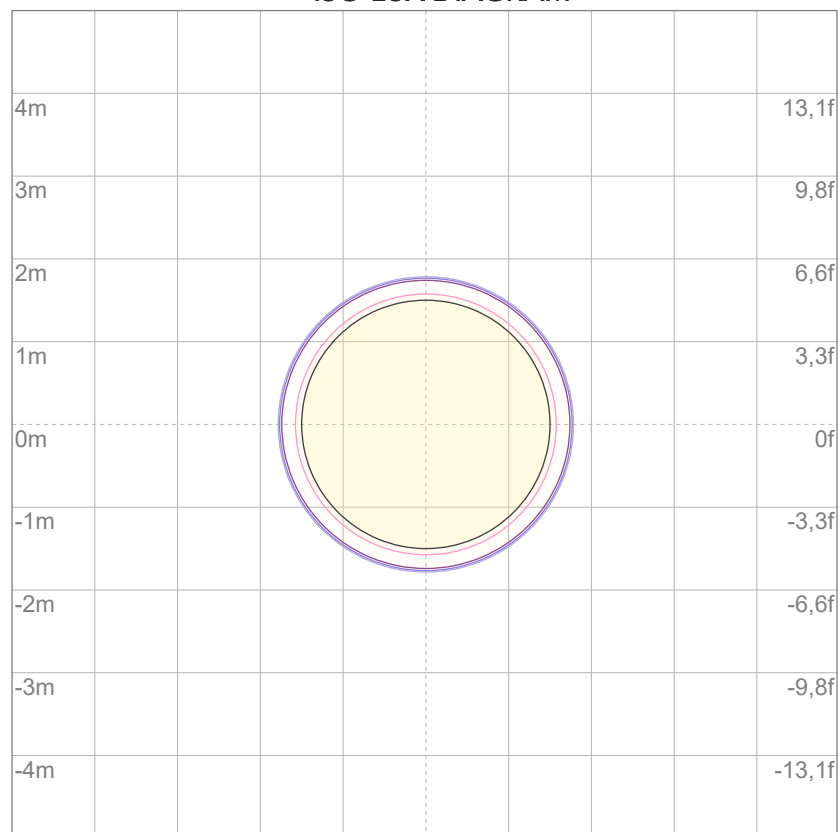
| | |
|-----|---------|
| 10% | 468 cd |
| 20% | 935 cd |
| 30% | 1403 cd |
| 40% | 1870 cd |
| 50% | 2338 cd |
| 60% | 2805 cd |
| 70% | 3273 cd |
| 80% | 3740 cd |

Conditions:

Number of c-planes: 2

Candela at center: 4675 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,40 lx |
| 5% | 2,34 lx |
| 10% | 4,68 lx |
| 30% | 14,0 lx |
| 50% | 23,4 lx |

Conditions:

Number of c-planes: 2

Lux at center: 46,8 lx

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



Total lumen output:

264 lm

Peak candela output:

4724 cd

Light quality:

CRI: 90,7

Color temperature:

6075 K

PRODUCT NAME:

ECLDISPLAY FC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 18°

Target:

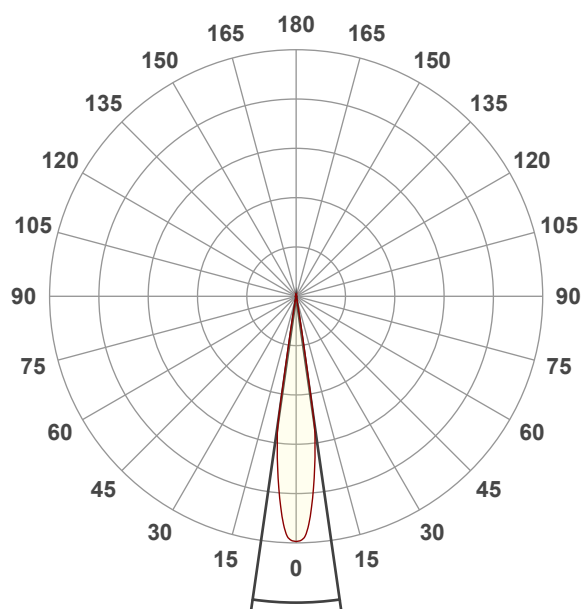
6000K

Operator:

Salvatore Giglio

Date and time:

07/02/2024 11:12:31

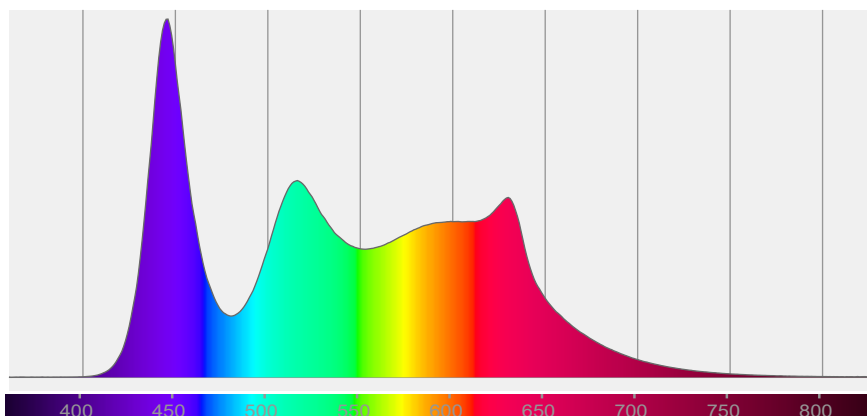


Beam angle 50%: 16,3°

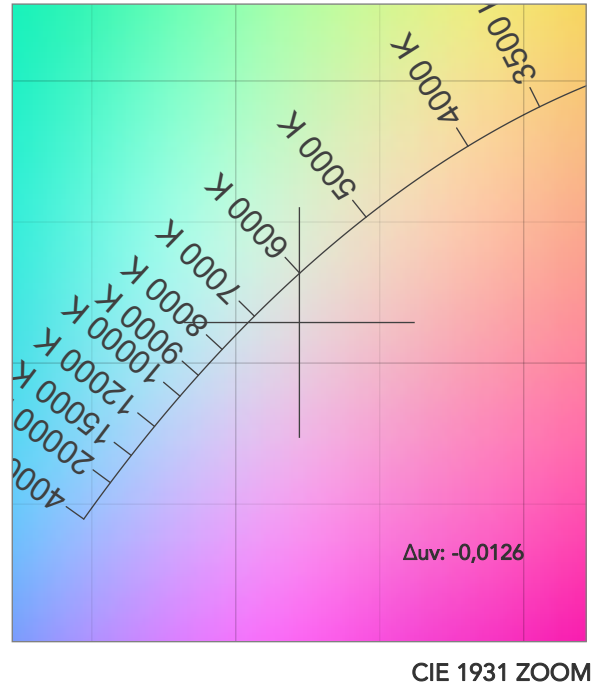
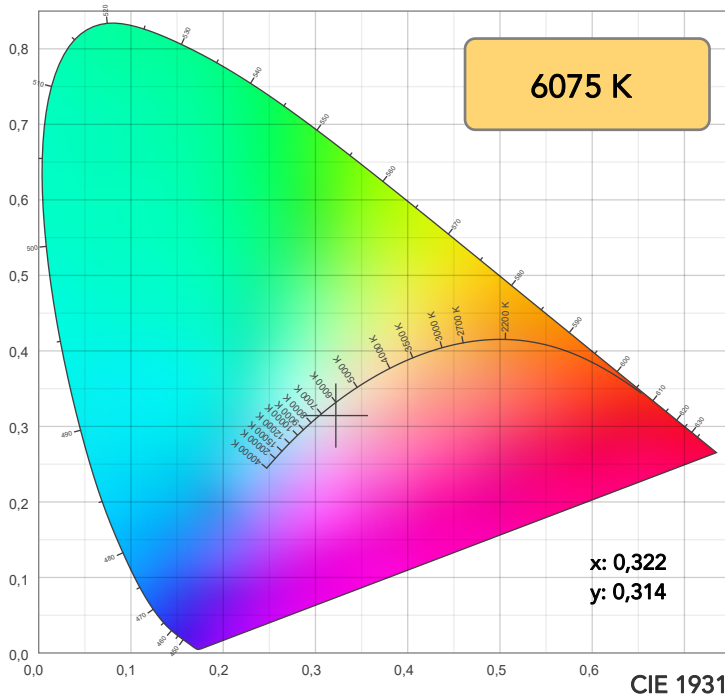
Field angle 10%: 19,1°

Cut off angle 2.5%: 20,2°

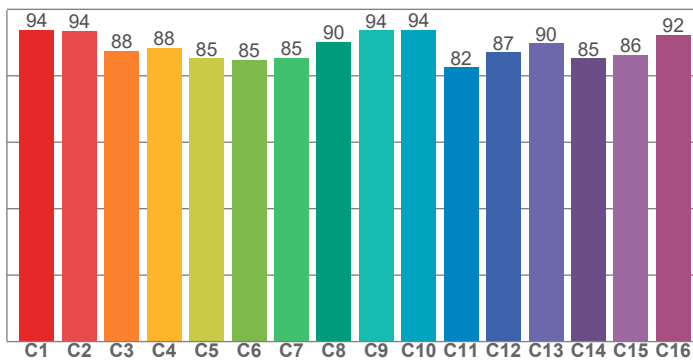
Spectra



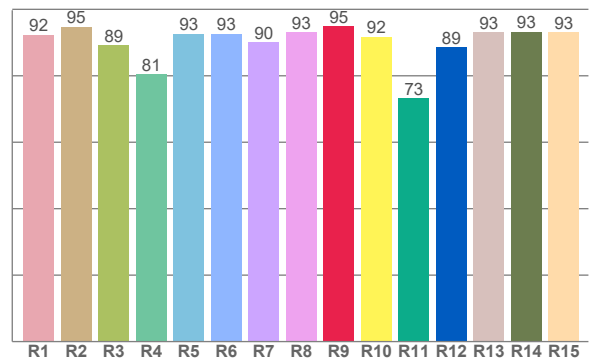
COLOR DETAILS



TM30: 88,5



CRI: 90,7 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92,3 | 94,7 | 89,2 | 80,6 | 92,7 | 92,7 | 90,2 | 93,2 | 94,8 | 91,7 | 73,3 | 88,6 | 93,1 | 93,2 | 93,1 |

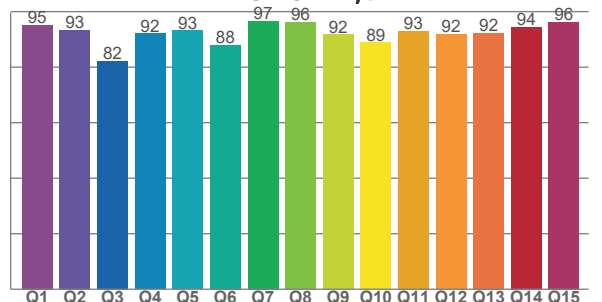
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93,9 | 93,6 | 87,5 | 88,5 | 85,3 | 84,8 | 85,4 | 90,1 | 93,6 | 93,8 | 82,5 | 87,1 | 89,7 | 85,2 | 86,3 | 92,3 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 95,2 | 93,4 | 82,2 | 92,1 | 93,2 | 88,1 | 96,6 | 96,2 | 91,7 | 88,9 | 93,0 | 91,9 | 92,4 | 94,4 | 96,2 |

CQS: 91,5



COLOR PARAMETERS

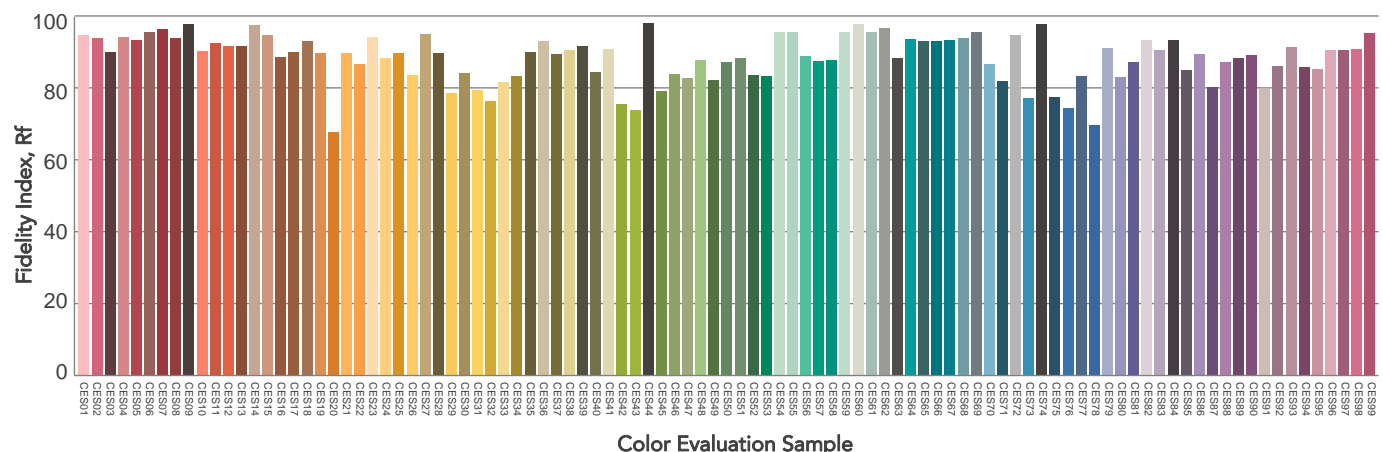
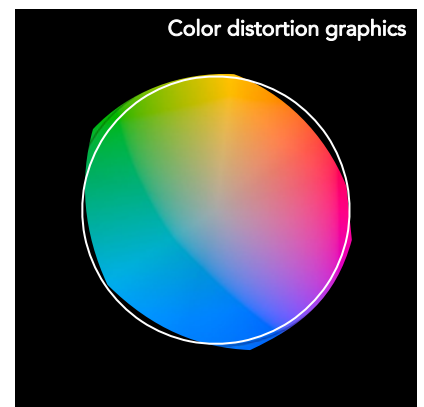
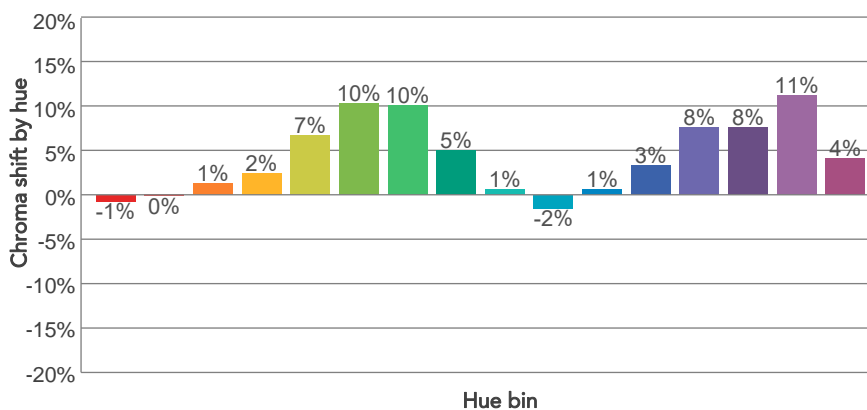
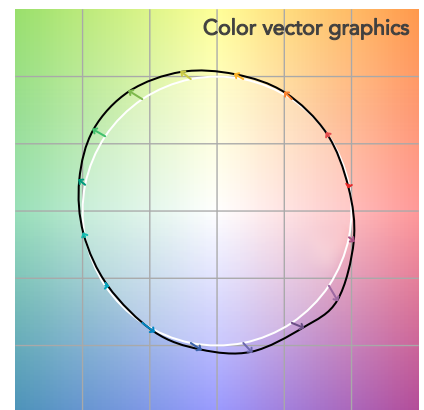
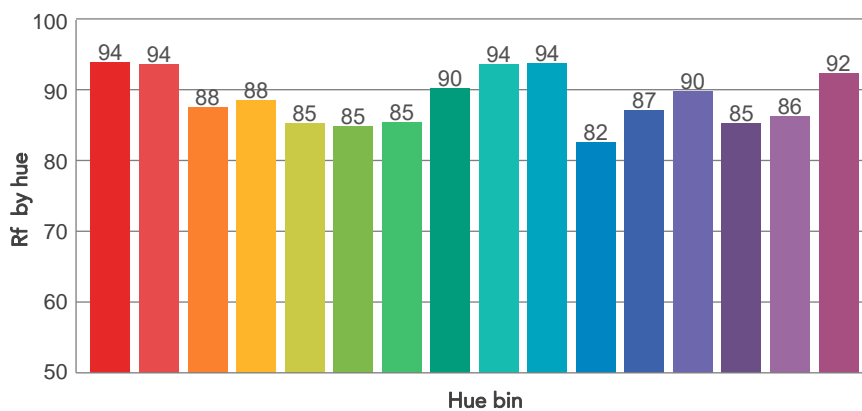
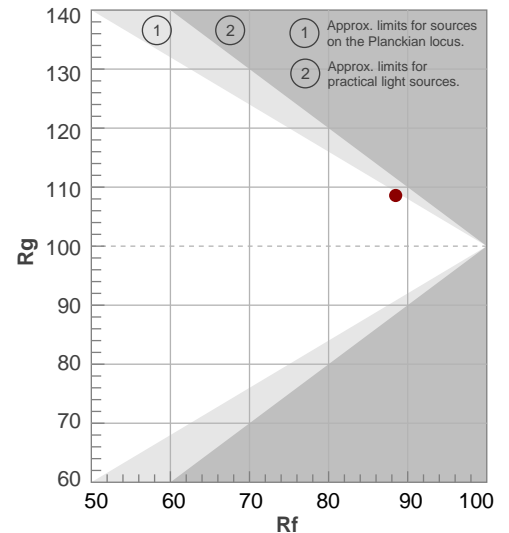
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 6075 K | 90,7 | 94,8 | 88,5 | 108,6 | 91,5 | 85 | 0,322 | 0,314 | -0,0126 |

TM30 DETAILS

Rf 88,5
Fidelity index Rf

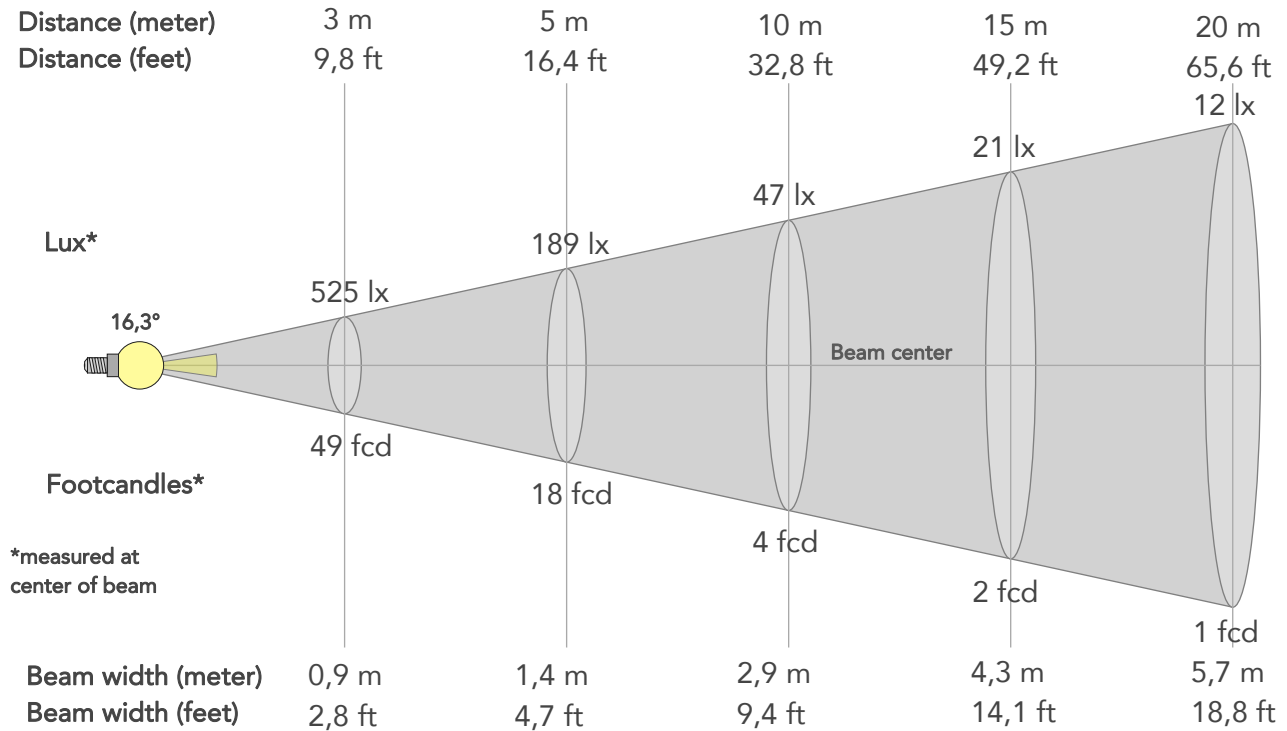
Rg 108,6
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 94 | -1% | -2% |
| 2 | 94 | 0% | 3% |
| 3 | 88 | 1% | 7% |
| 4 | 88 | 2% | 7% |
| 5 | 85 | 7% | 6% |
| 6 | 85 | 10% | 5% |
| 7 | 85 | 10% | 1% |
| 8 | 90 | 5% | -3% |
| 9 | 94 | 1% | -3% |
| 10 | 94 | -2% | 1% |
| 11 | 82 | 1% | 11% |
| 12 | 87 | 3% | 8% |
| 13 | 90 | 8% | 5% |
| 14 | 85 | 8% | 5% |
| 15 | 86 | 11% | -5% |
| 16 | 92 | 4% | -2% |



BEAM DETAILS

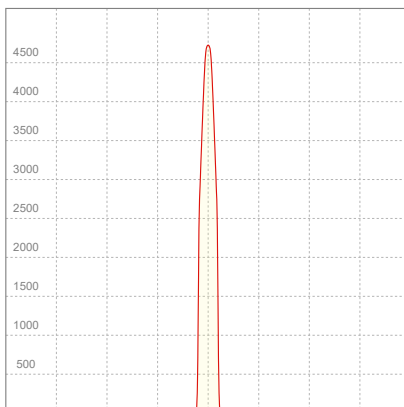
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 16,3° | 19,1° | 20,2° | 98,4% | 98,0% |



BEAM INTENSITIES AND WIDTHS

| Distance | 1m | 2m | 3m | 4m | 5m | 7,5m | 10m | 15m | 20m | 25m | 30m | 40m | 50m |
|-----------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Distance | 3,3ft | 6,6ft | 9,8ft | 13,1ft | 16,4ft | 24,6ft | 32,8ft | 49,2ft | 65,6ft | 82ft | 98,4ft | 131,2ft | 164ft |
| Lux | 4724lx | 1181lx | 525lx | 295lx | 189lx | 84lx | 47lx | 21lx | 12lx | 8lx | 5lx | 3lx | 2lx |
| Footcand. | 439fcd | 110fcd | 49fcd | 27fcd | 18fcd | 8fcd | 4fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,9m | 1,1m | 1,4m | 2,2m | 2,9m | 4,3m | 5,7m | 7,2m | 8,6m | 11,5m | 14,4m |
| Beam wid. | 0,9ft | 1,9ft | 2,8ft | 3,8ft | 4,7ft | 7,1ft | 9,4ft | 14,1ft | 18,8ft | 23,5ft | 28,2ft | 37,7ft | 47,1ft |

LINEAR DISTRIBUTION DIAGRAM

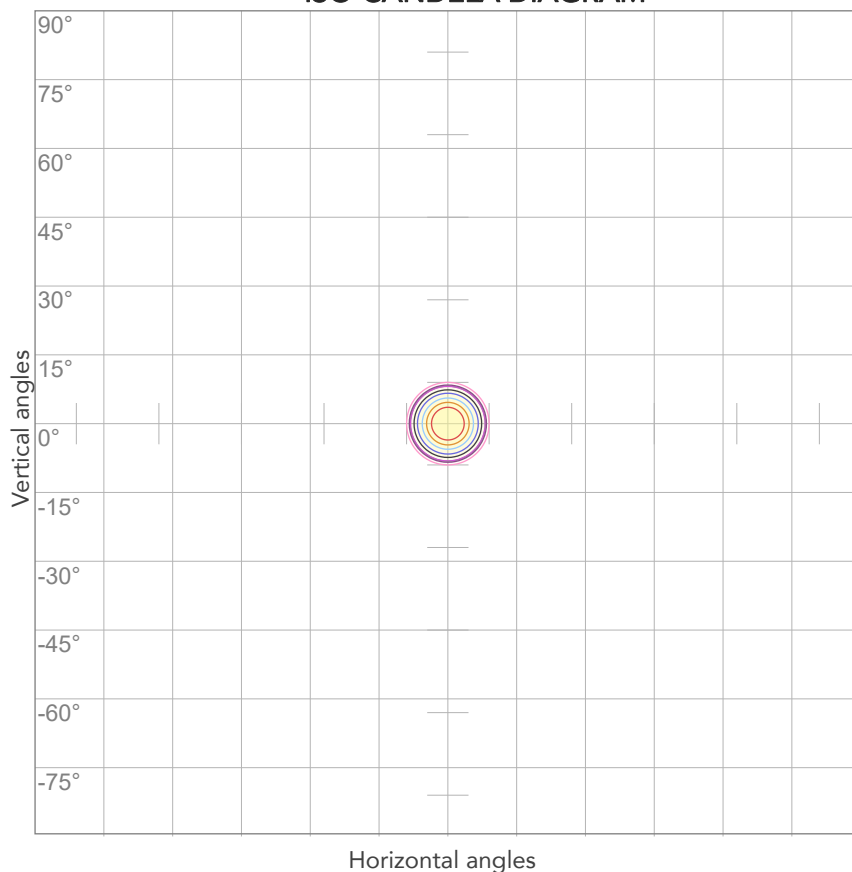


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 226V | 0,302A | 30,3W | 0,44 | 9lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



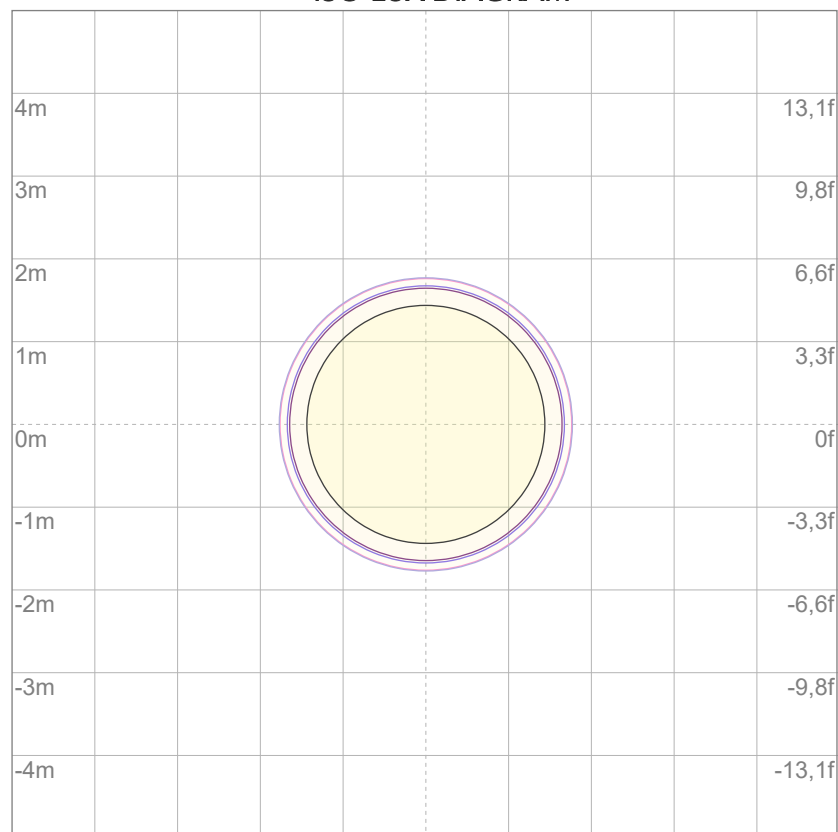
| | |
|-----|---------|
| 10% | 472 cd |
| 20% | 945 cd |
| 30% | 1417 cd |
| 40% | 1890 cd |
| 50% | 2362 cd |
| 60% | 2834 cd |
| 70% | 3307 cd |
| 80% | 3779 cd |

Conditions:

Number of c-planes: 2

Candela at center: 4724 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,42 lx |
| 5% | 2,36 lx |
| 10% | 4,72 lx |
| 30% | 14,2 lx |
| 50% | 23,6 lx |

Conditions:

Number of c-planes: 2

Lux at center: 47,2 lx

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