

Photometric Test Report



EclDisplay CCFC

ZOOMABLE 20°-40° PROFILE LENS

40W RGB+WW LED gallery light, Tunable White and Full Colour, constant current to be connected to external PSU & Driver

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Color temperature 5600K

| | |
|----------|----|
| Max Zoom | 69 |
| Min Zoom | 74 |

Color temperature 6000K

| | |
|----------|----|
| Max Zoom | 79 |
| Min Zoom | 84 |

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:

344 lm

Peak candela output:

1108 cd

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Max Zoom

Target:

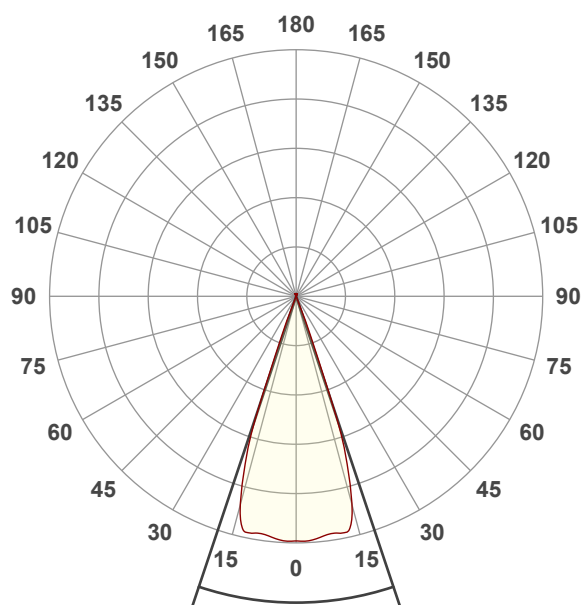
Full On

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:57:35

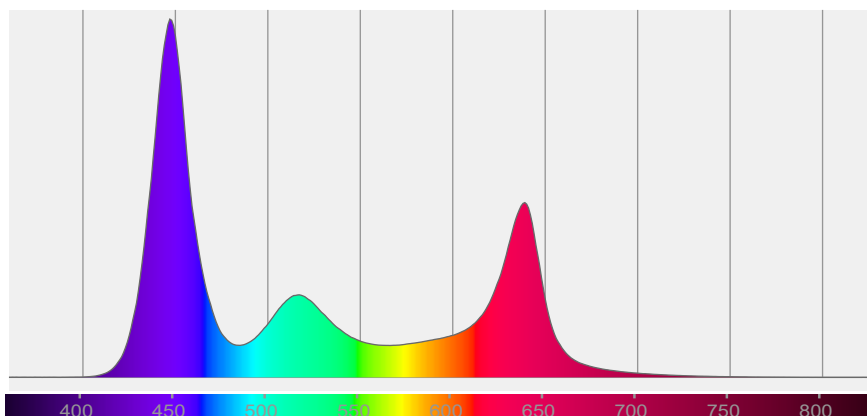


Beam angle 50%: 37°

Field angle 10%: 41,6°

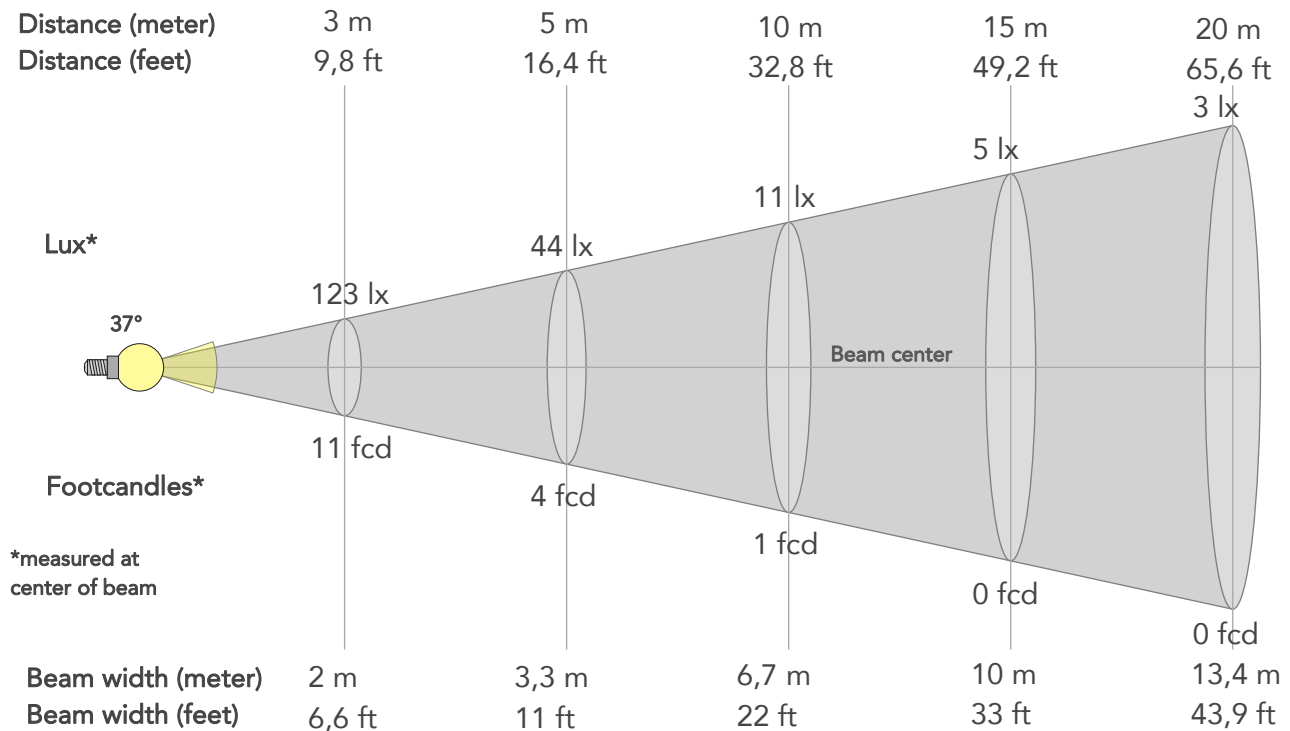
Cut off angle 2.5%: 43,2°

Spectra



BEAM DETAILS

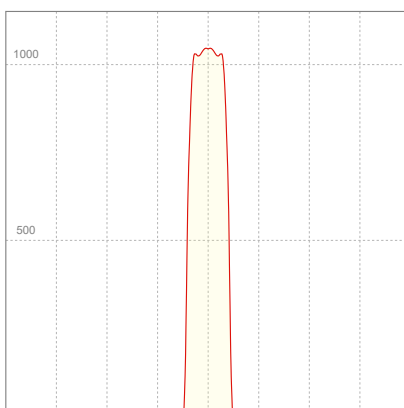
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 37° | 41,6° | 43,2° | 100,0% | 100,0% |



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 | 1106lx | 276lx | 123lx | 69lx | 44lx | 20lx | 11lx | 5lx | 3lx | 2lx | 1lx | 1lx | 0lx |
| Footcand. | 103fcd | 26fcd | 11fcd | 6fcd | 4fcd | 2fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,7m | 1,3m | 2m | 2,7m | 3,3m | 5m | 6,7m | 10m | 13,4m | 16,7m | 20,1m | 26,8m | 33,5m |
| Beam wid. | 2,2ft | 4,4ft | 6,6ft | 8,8ft | 11ft | 16,5ft | 22ft | 33ft | 43,9ft | 54,9ft | 65,9ft | 87,9ft | 109,9ft |

LINEAR DISTRIBUTION DIAGRAM

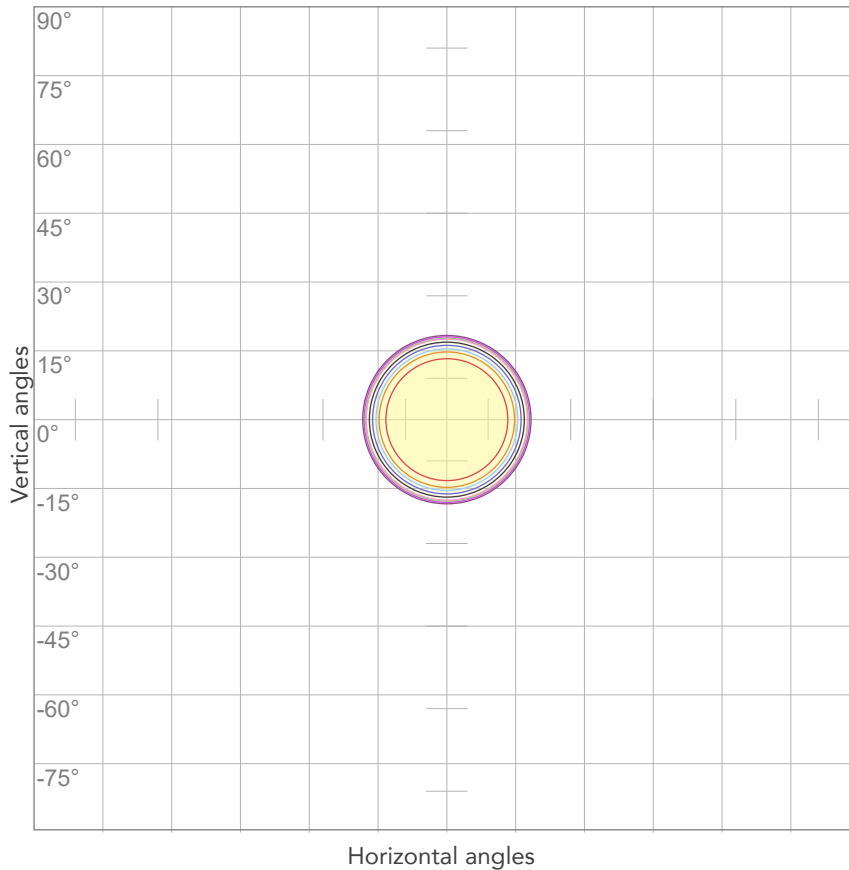


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,166A | 34,6W | 0,93 | 10lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



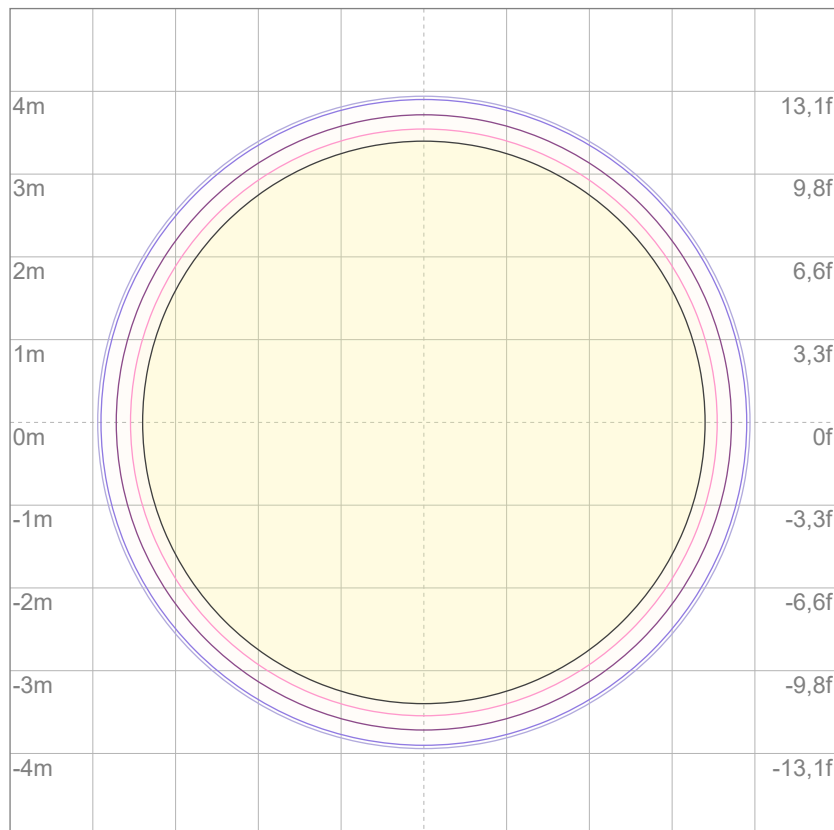
| | |
|-----|--------|
| 10% | 111 cd |
| 20% | 221 cd |
| 30% | 332 cd |
| 40% | 442 cd |
| 50% | 553 cd |
| 60% | 664 cd |
| 70% | 774 cd |
| 80% | 885 cd |

Conditions:

Number of c-planes: 2

Candela at center: 1106 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,332 lx |
| 5% | 0,553 lx |
| 10% | 1,11 lx |
| 30% | 3,32 lx |
| 50% | 5,53 lx |

Conditions:

Number of c-planes: 2

Lux at center: 11,1 lx

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



Total lumen output:

366 lm

Peak candela output:

4863 cd

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Min Zoom

Target:

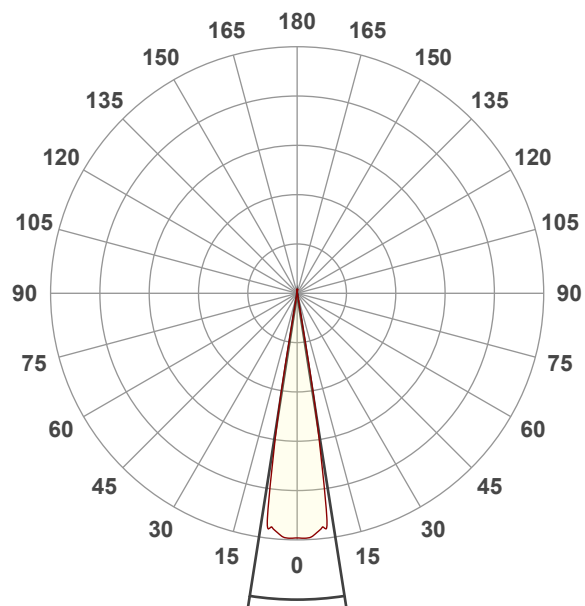
Full On

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:48:16

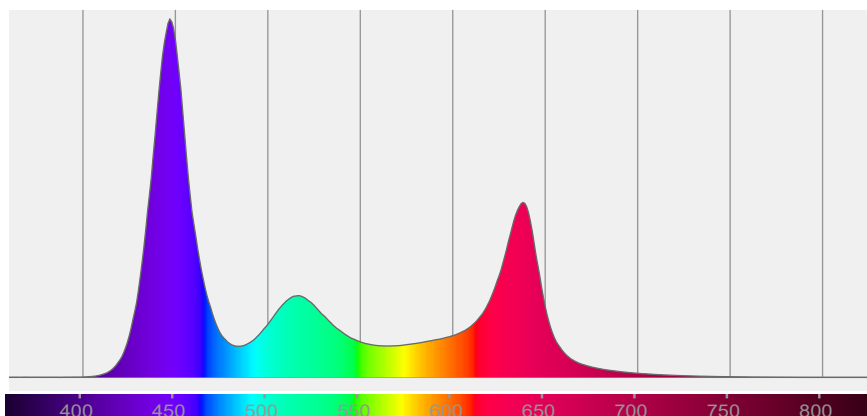


Beam angle 50%: 17,8°

Field angle 10%: 20,4°

Cut off angle 2.5%: 21,7°

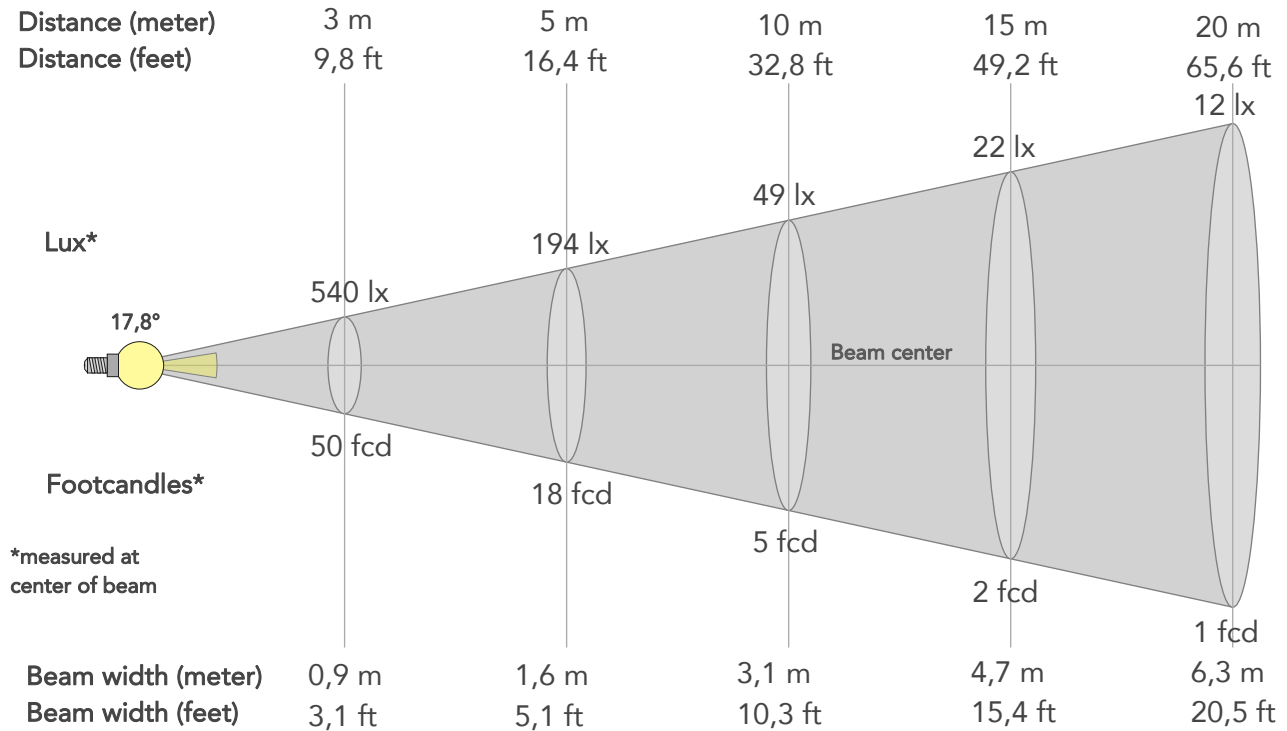
Spectra



BEAM DETAILS



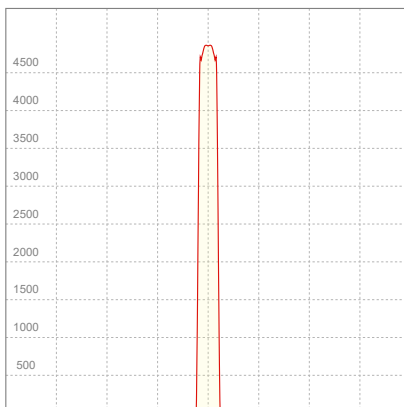
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 17,8° | 20,4° | 21,7° | 100,0% | 100,0% |



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 | 4856lx | 1214lx | 540lx | 303lx | 194lx | 86lx | 49lx | 22lx | 12lx | 8lx | 5lx | 3lx | 2lx |
| Footcand. | 451fcd | 113fcd | 50fcd | 28fcd | 18fcd | 8fcd | 5fcd | 2fcd | 1fcd | 1fcd | 1fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,9m | 1,3m | 1,6m | 2,3m | 3,1m | 4,7m | 6,3m | 7,8m | 9,4m | 12,5m | 15,7m |
| Beam wid. | 1ft | 2,1ft | 3,1ft | 4,1ft | 5,1ft | 7,7ft | 10,3ft | 15,4ft | 20,5ft | 25,7ft | 30,8ft | 41,1ft | 51,4ft |

LINEAR DISTRIBUTION DIAGRAM

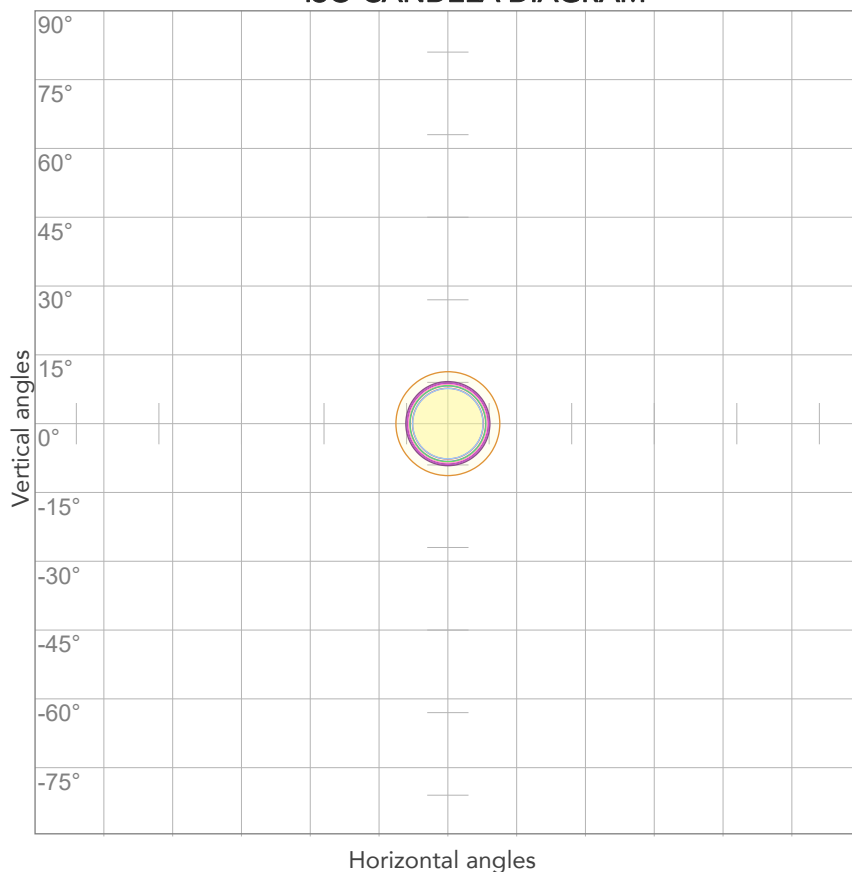


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 223V | 0,168A | 35,0W | 0,93 | 10lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



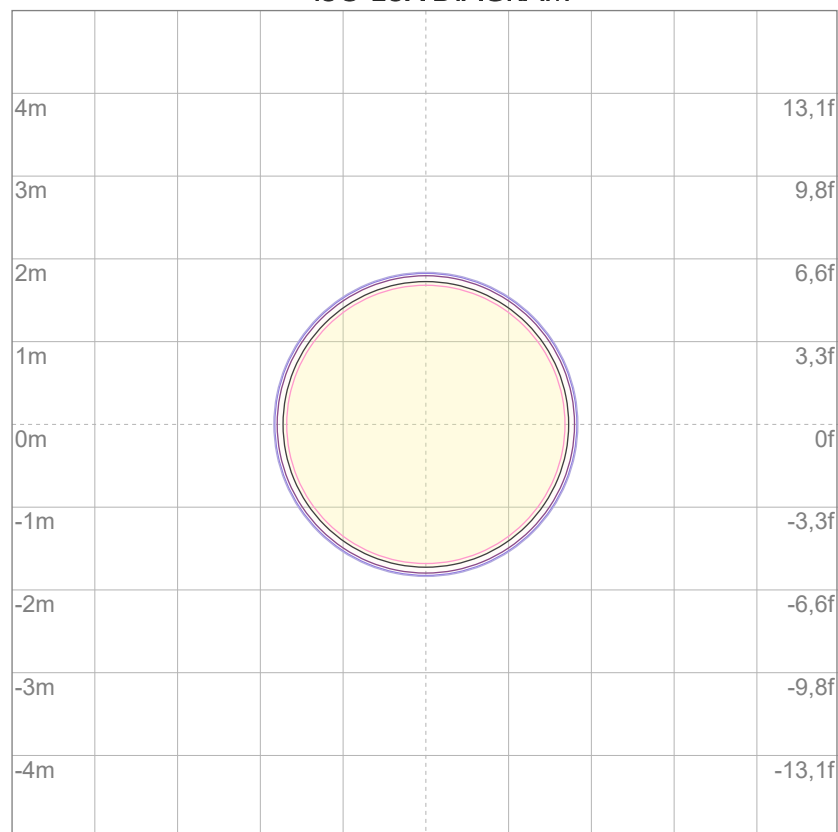
| | |
|-----|---------|
| 10% | 486 cd |
| 20% | 971 cd |
| 30% | 1457 cd |
| 40% | 1942 cd |
| 50% | 2428 cd |
| 60% | 2914 cd |
| 70% | 3399 cd |
| 80% | 3885 cd |

Conditions:

Number of c-planes: 2

Candela at center: 4856 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,46 lx |
| 5% | 2,43 lx |
| 10% | 4,86 lx |
| 30% | 14,6 lx |
| 50% | 24,3 lx |

Conditions:

Number of c-planes: 2

Lux at center: 48,6 lx

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



Total lumen output:

75,1 lm

Peak candela output:

245 cd

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Max Zoom

Target:

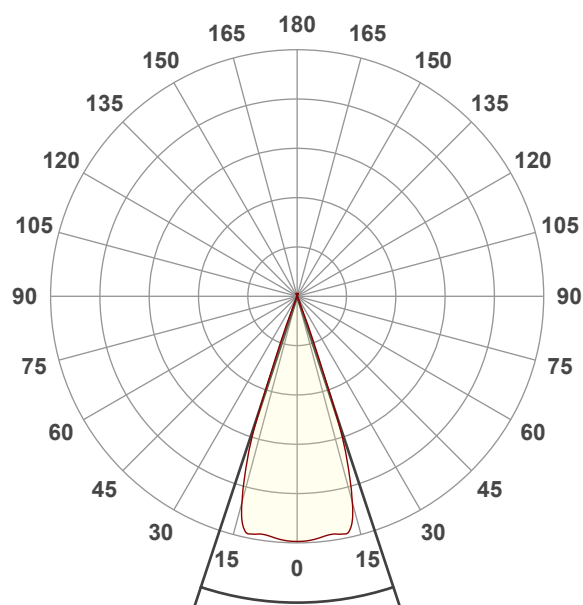
Red

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:59:18

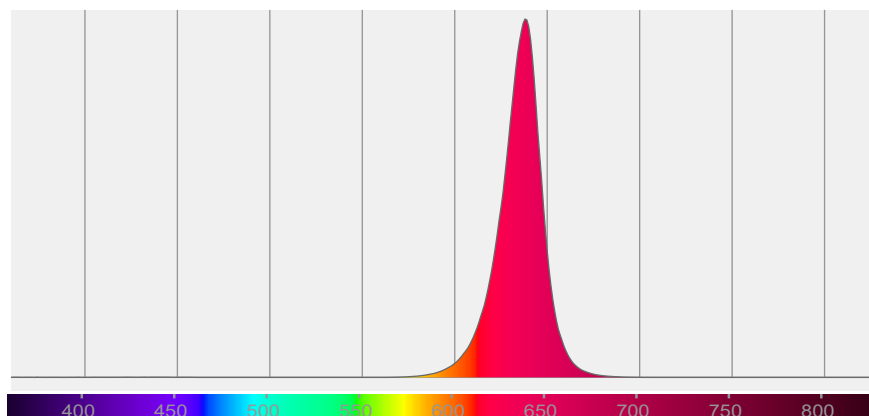


Beam angle 50%: 36,6°

Field angle 10%: 41,5°

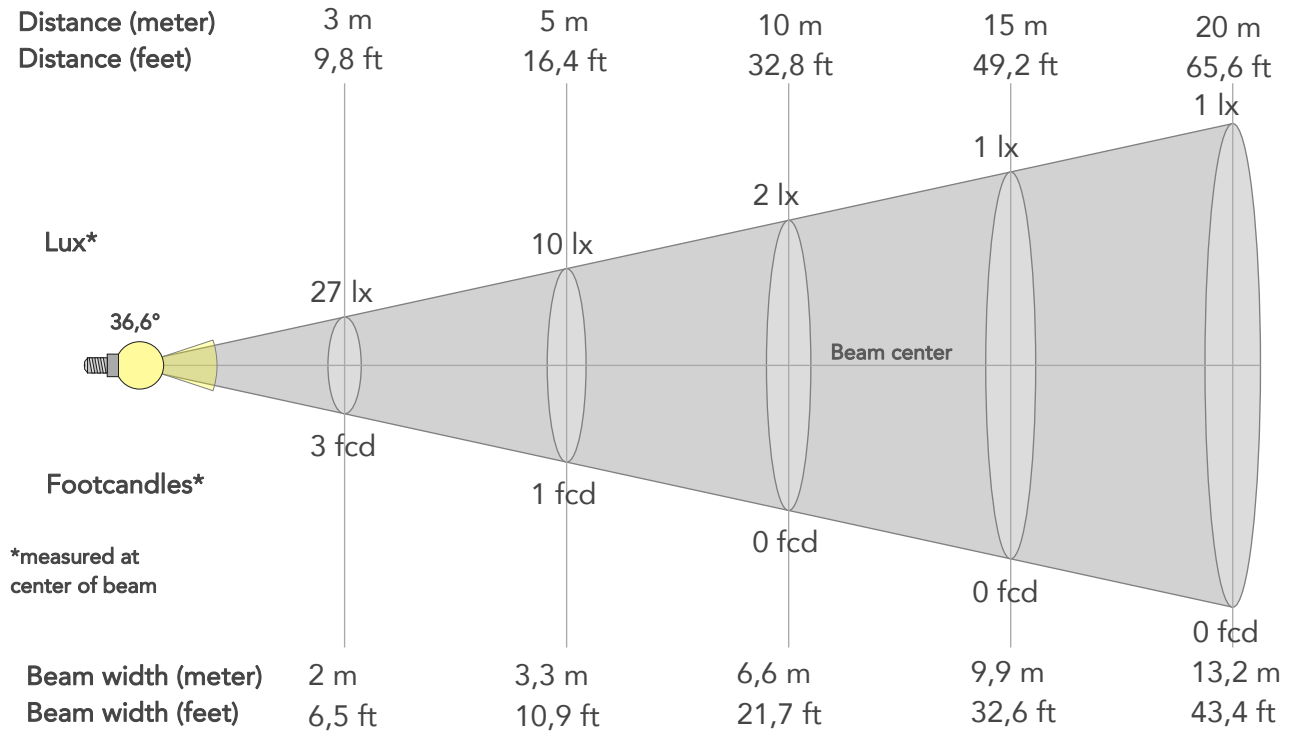
Cut off angle 2.5%: 43°

Spectra



BEAM DETAILS

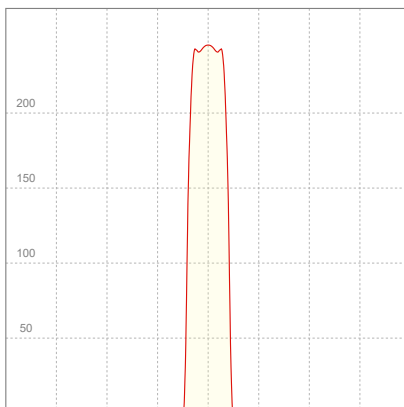
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 36,6° | 41,5° | 43° | 100,0% | 100,0% |



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 | 245lx | 61lx | 27lx | 15lx | 10lx | 4lx | 2lx | 1lx | 1lx | 0lx | 0lx | 0lx | 0lx |
| Footcand. | 23fcd | 6fcd | 3fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,7m | 1,3m | 2m | 2,6m | 3,3m | 5m | 6,6m | 9,9m | 13,2m | 16,6m | 19,9m | 26,5m | 33,1m |
| Beam wid. | 2,2ft | 4,4ft | 6,5ft | 8,7ft | 10,9ft | 16,3ft | 21,7ft | 32,6ft | 43,4ft | 54,3ft | 65,1ft | 86,9ft | 108,6ft |

LINEAR DISTRIBUTION DIAGRAM

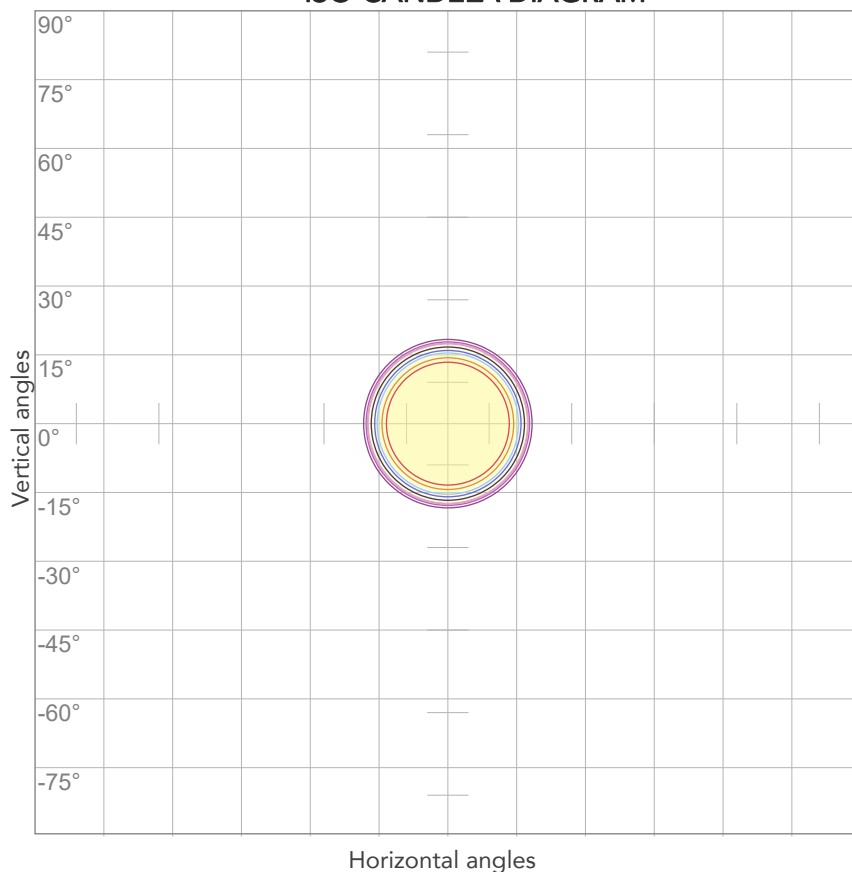


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Efficiency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,073A | 14,1W | 0,87 | 5lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



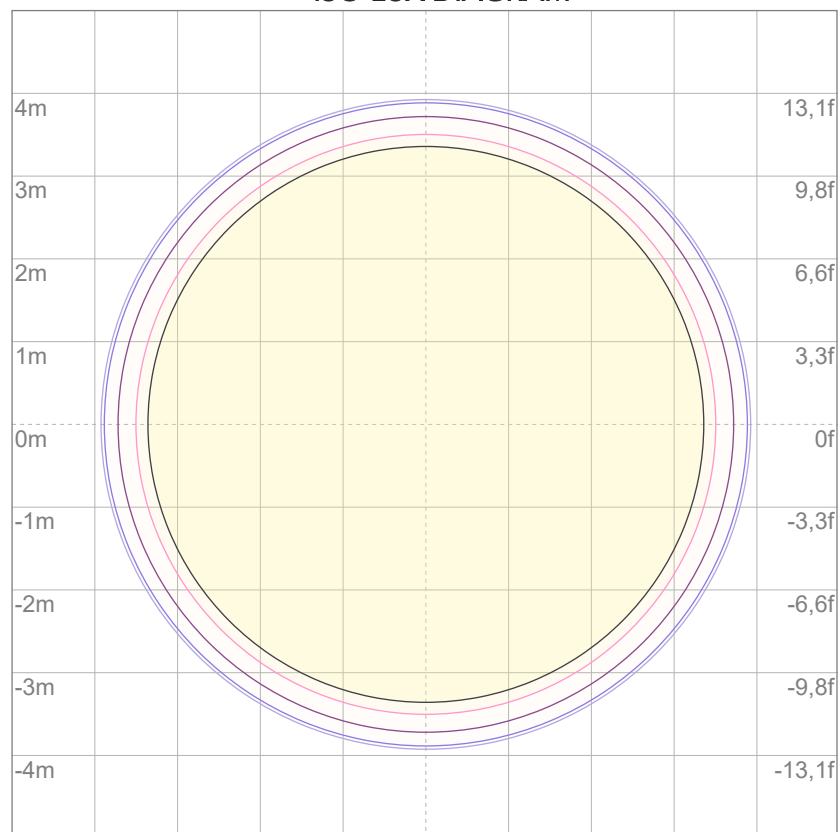
| | |
|-----|--------|
| 10% | 25 cd |
| 20% | 49 cd |
| 30% | 74 cd |
| 40% | 98 cd |
| 50% | 123 cd |
| 60% | 147 cd |
| 70% | 172 cd |
| 80% | 196 cd |

Conditions:

Number of c-planes: 2

Candela at center: 245 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 73,6m lx |
| 5% | 0,123 lx |
| 10% | 0,245 lx |
| 30% | 0,736 lx |
| 50% | 1,23 lx |

Conditions:

Number of c-planes: 2

Lux at center: 2,45 lx

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



Total lumen output:

85,4 lm

Peak candela output:

1141 cd

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Min Zoom

Target:

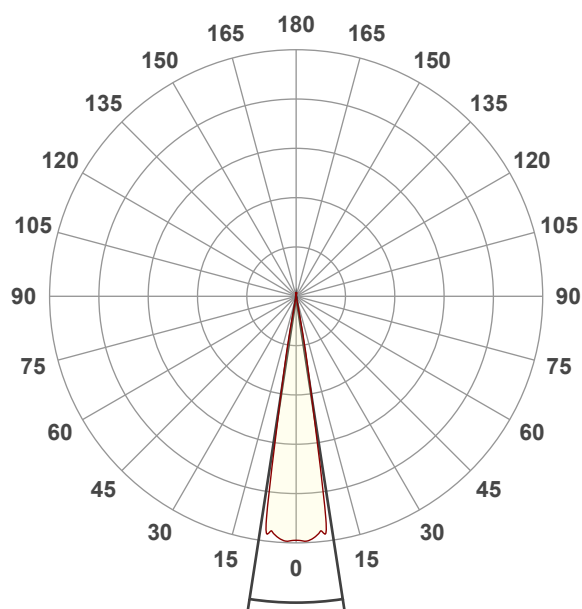
Red

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:50:00

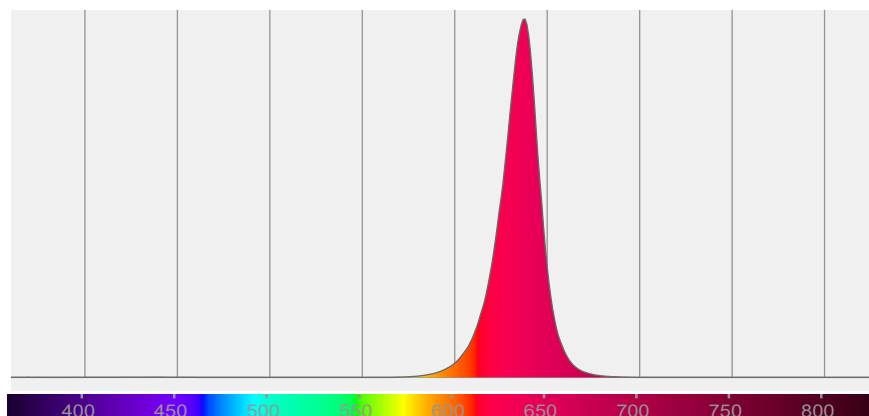


Beam angle 50%: 17,5°

Field angle 10%: 21°

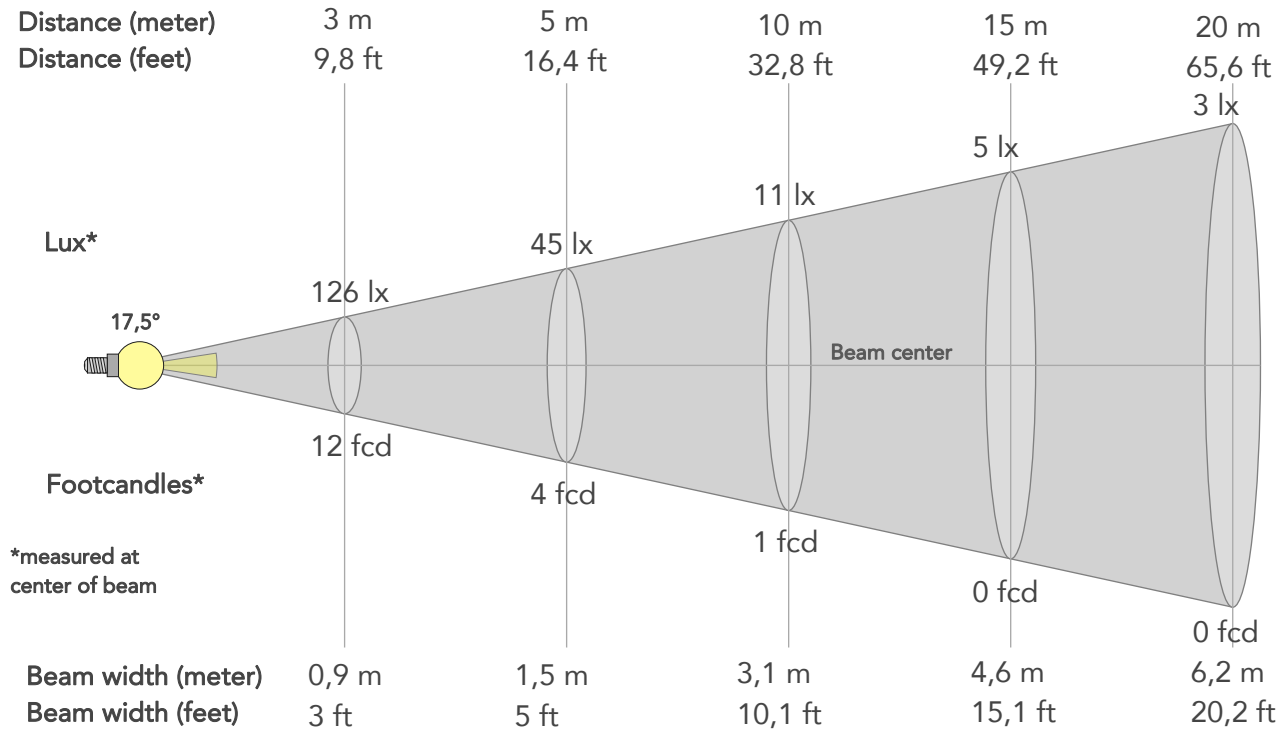
Cut off angle 2.5%: 22°

Spectra



BEAM DETAILS

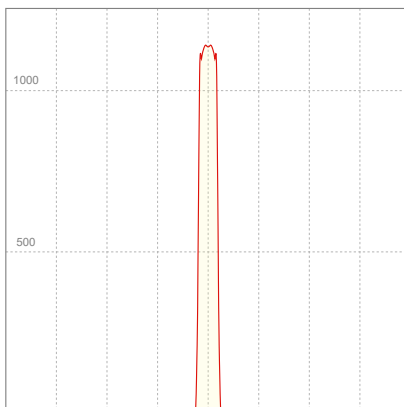
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 17,5° | 21° | 22° | 100,0% | 100,0% |



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 | 1136lx | 284lx | 126lx | 71lx | 45lx | 20lx | 11lx | 5lx | 3lx | 2lx | 1lx | 1lx | 0lx |
| Footcand. | 106fcd | 26fcd | 12fcd | 7fcd | 4fcd | 2fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,9m | 1,2m | 1,5m | 2,3m | 3,1m | 4,6m | 6,2m | 7,7m | 9,2m | 12,3m | 15,4m |
| Beam wid. | 1ft | 2ft | 3ft | 4ft | 5ft | 7,6ft | 10,1ft | 15,1ft | 20,2ft | 25,2ft | 30,3ft | 40,4ft | 50,5ft |

LINEAR DISTRIBUTION DIAGRAM

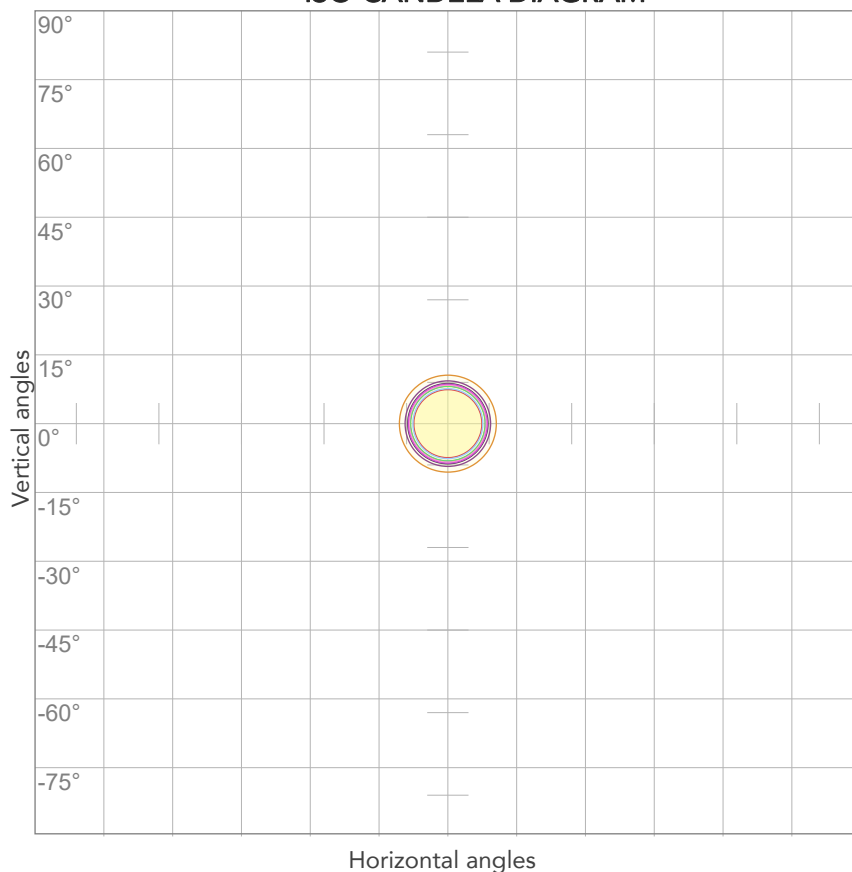


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,072A | 13,9W | 0,86 | 6lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



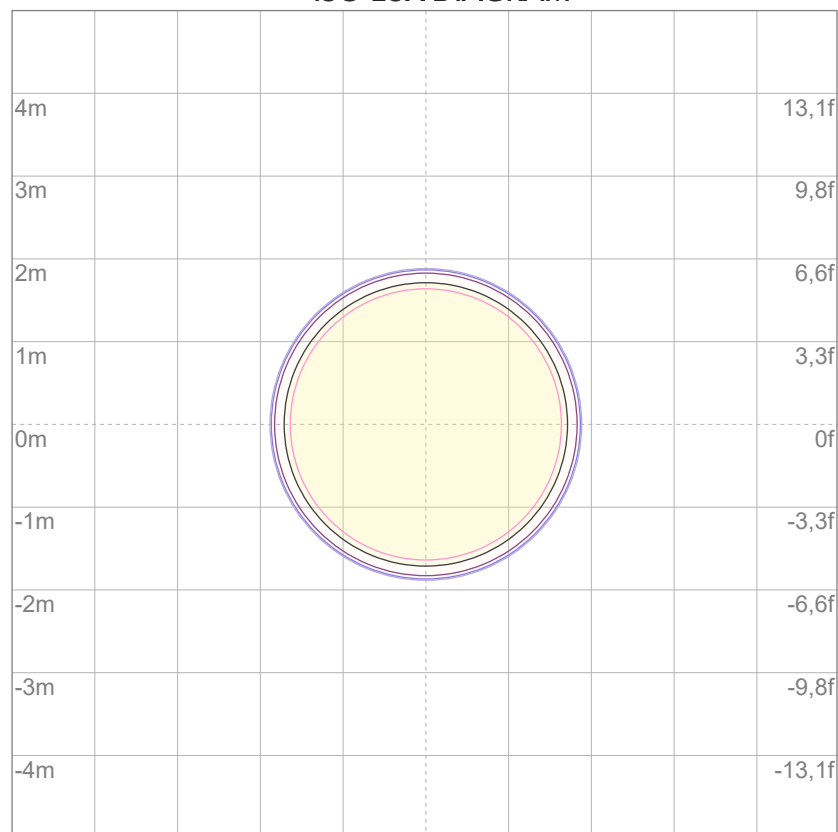
| | |
|-----|--------|
| 10% | 114 cd |
| 20% | 227 cd |
| 30% | 341 cd |
| 40% | 455 cd |
| 50% | 568 cd |
| 60% | 682 cd |
| 70% | 795 cd |
| 80% | 909 cd |

Conditions:

Number of c-planes: 2

Candela at center: 1136 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,341 lx |
| 5% | 0,568 lx |
| 10% | 1,14 lx |
| 30% | 3,41 lx |
| 50% | 5,68 lx |

Conditions:

Number of c-planes: 2

Lux at center: 11,4 lx

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



Total lumen output:

142 lm

Peak candela output:

455 cd

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Max Zoom

Target:

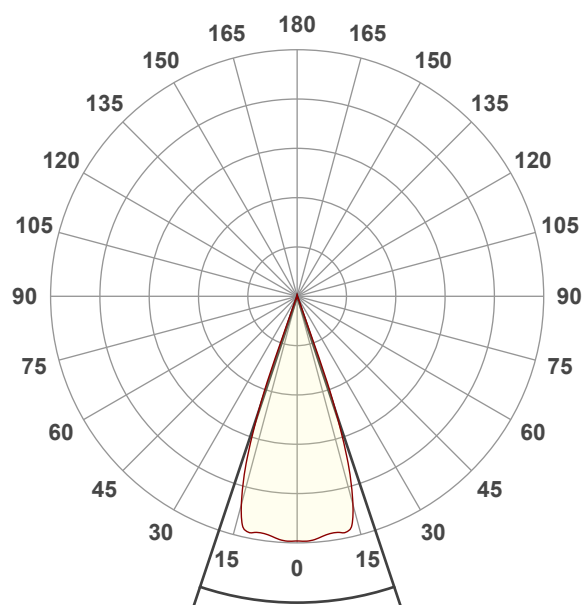
Green

Operator:

Paolo Carvone

Date and time:

03/12/2020 17:00:47

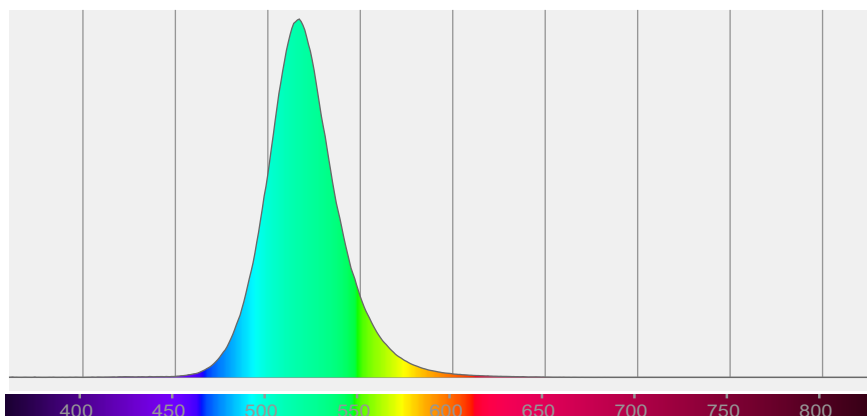


Beam angle 50%: 36,9°

Field angle 10%: 41,3°

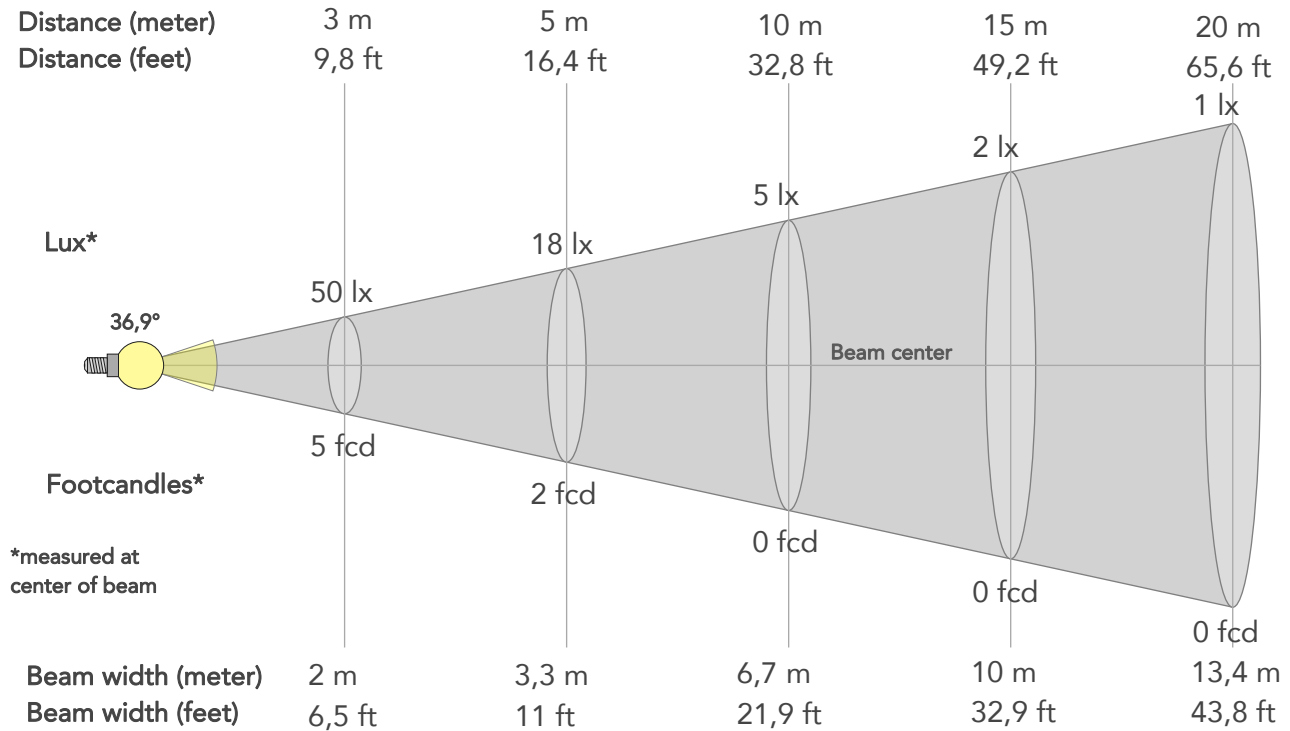
Cut off angle 2.5%: 43,7°

Spectra



BEAM DETAILS

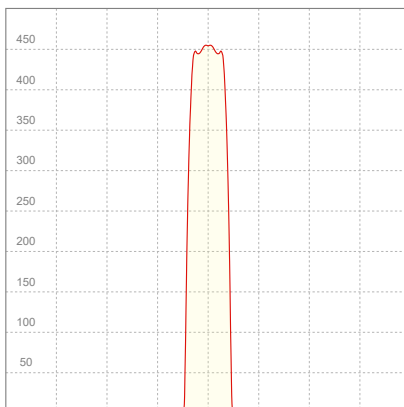
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 36,9° | 41,3° | 43,7° | 100,0% | 100,0% |



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 | 454lx | 114lx | 50lx | 28lx | 18lx | 8lx | 5lx | 2lx | 1lx | 1lx | 1lx | 0lx | 0lx |
| Footcand. | 42fcd | 11fcd | 5fcd | 3fcd | 2fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,7m | 1,3m | 2m | 2,7m | 3,3m | 5m | 6,7m | 10m | 13,4m | 16,7m | 20m | 26,7m | 33,4m |
| Beam wid. | 2,2ft | 4,4ft | 6,5ft | 8,8ft | 11ft | 16,4ft | 21,9ft | 32,9ft | 43,8ft | 54,8ft | 65,7ft | 87,7ft | 109,6ft |

LINEAR DISTRIBUTION DIAGRAM

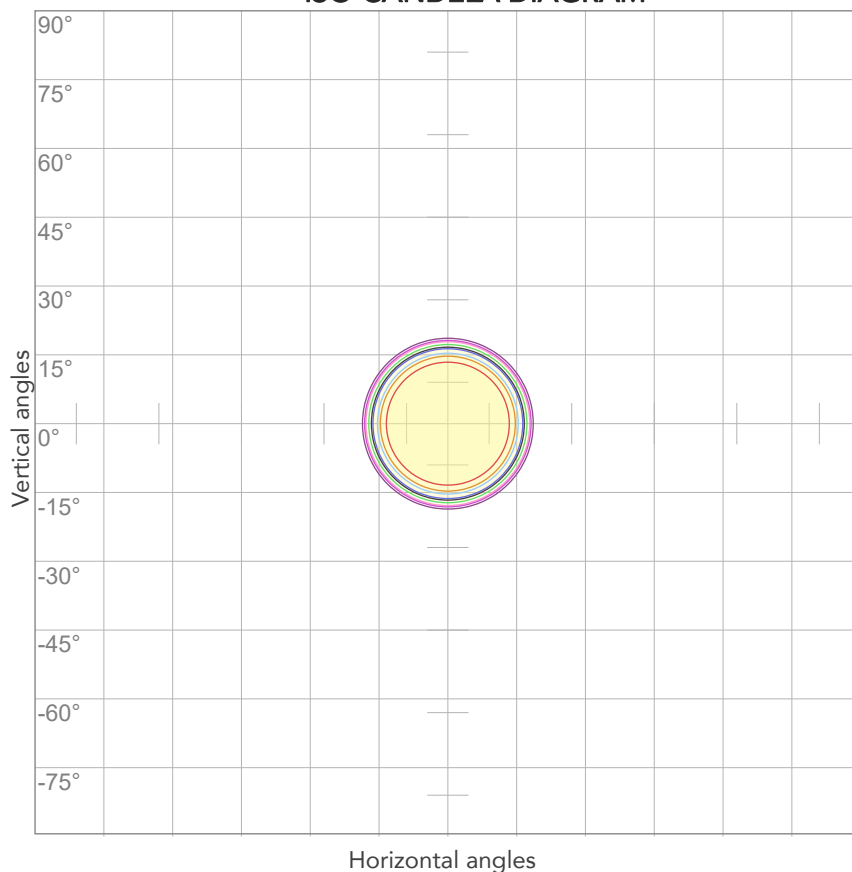


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,097A | 19,3W | 0,89 | 7lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



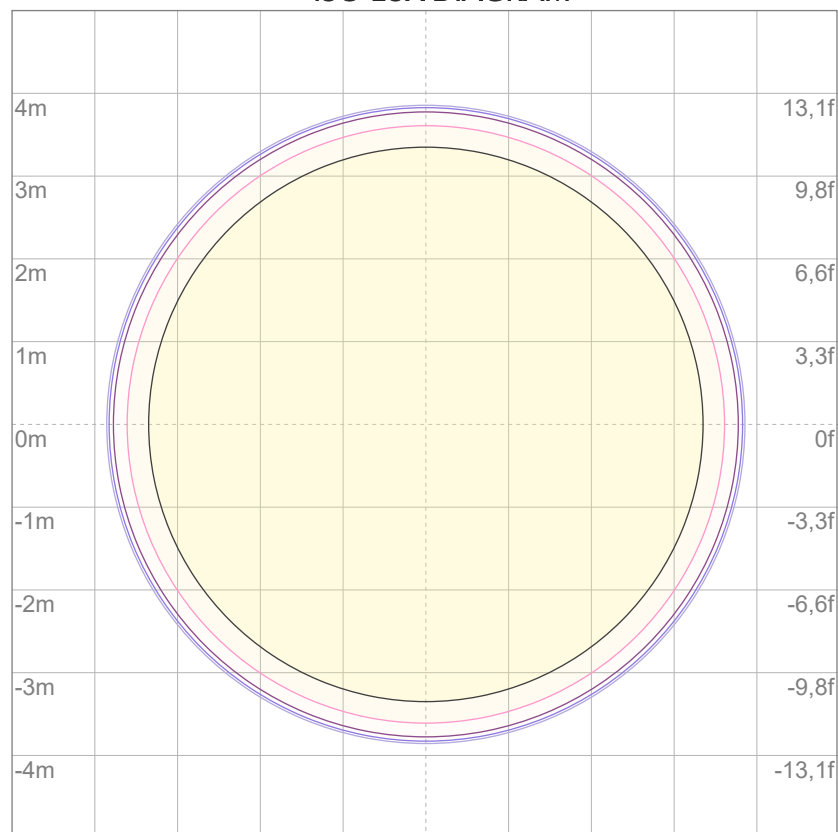
| | |
|-----|--------|
| 10% | 45 cd |
| 20% | 91 cd |
| 30% | 136 cd |
| 40% | 182 cd |
| 50% | 227 cd |
| 60% | 273 cd |
| 70% | 318 cd |
| 80% | 364 cd |

Conditions:

Number of c-planes: 2

Candela at center: 454 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,136 lx |
| 5% | 0,227 lx |
| 10% | 0,454 lx |
| 30% | 1,36 lx |
| 50% | 2,27 lx |

Conditions:

Number of c-planes: 2

Lux at center: 4,54 lx

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



Total lumen output:

158 lm

Peak candela output:

2101 cd

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Min Zoom

Target:

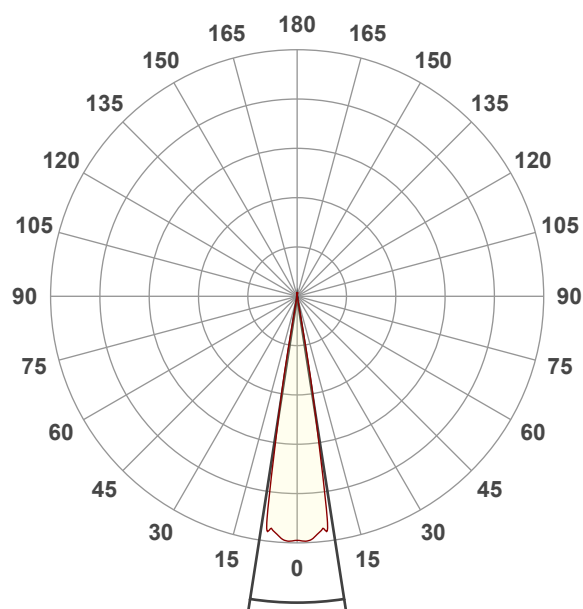
Green

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:52:02

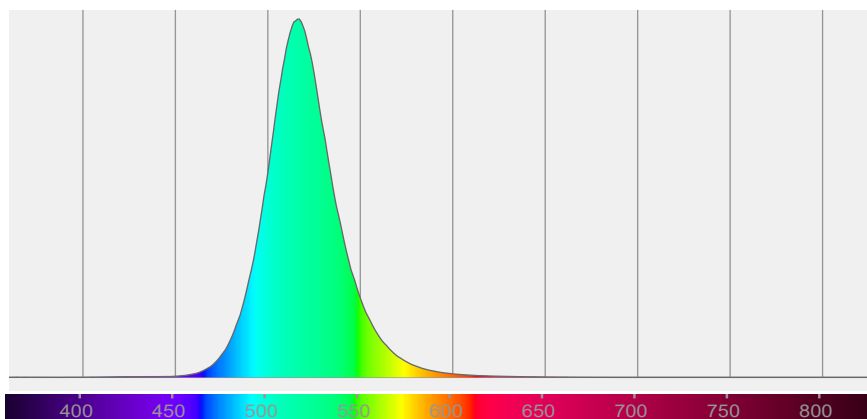


Beam angle 50%: 17,7°

Field angle 10%: 20,6°

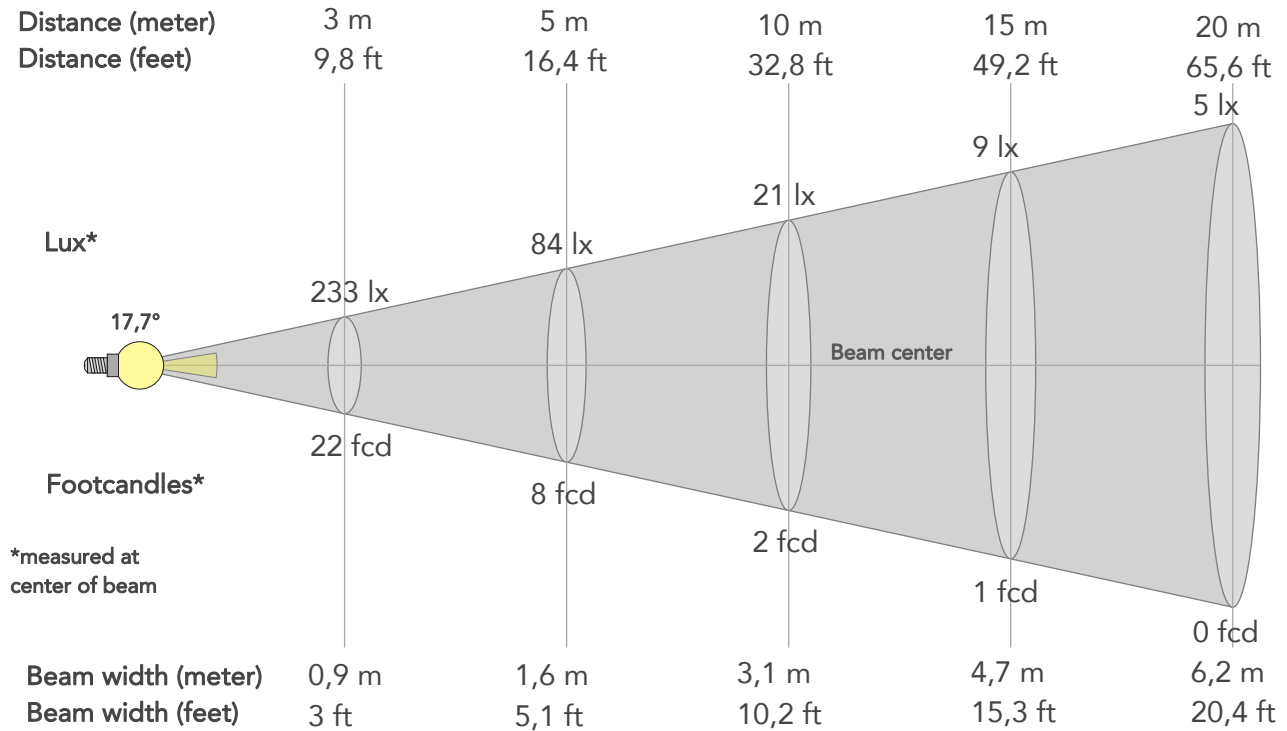
Cut off angle 2.5%: 21,3°

Spectra



BEAM DETAILS

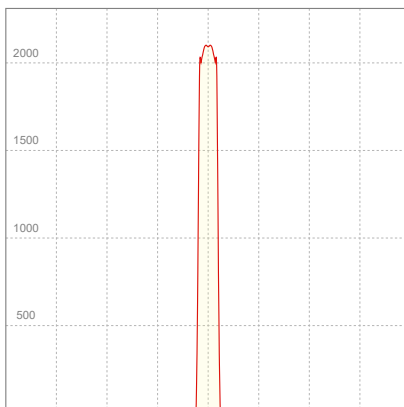
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 17,7° | 20,6° | 21,3° | 100,0% | 100,0% |



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 | 2093lx | 523lx | 233lx | 131lx | 84lx | 37lx | 21lx | 9lx | 5lx | 3lx | 2lx | 1lx | 1lx |
| Footcand. | 194fcd | 49fcd | 22fcd | 12fcd | 8fcd | 3fcd | 2fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,9m | 1,2m | 1,6m | 2,3m | 3,1m | 4,7m | 6,2m | 7,8m | 9,3m | 12,4m | 15,5m |
| Beam wid. | 1ft | 2,1ft | 3ft | 4,1ft | 5,1ft | 7,6ft | 10,2ft | 15,3ft | 20,4ft | 25,5ft | 30,6ft | 40,8ft | 51ft |

LINEAR DISTRIBUTION DIAGRAM

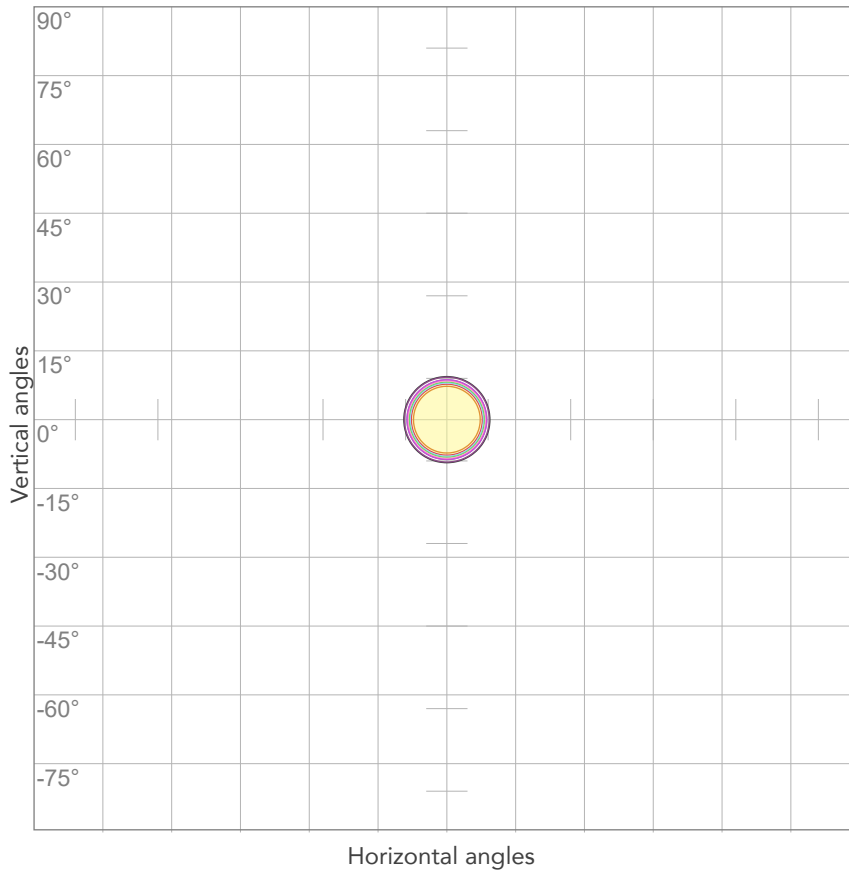


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,097A | 19,4W | 0,89 | 8lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



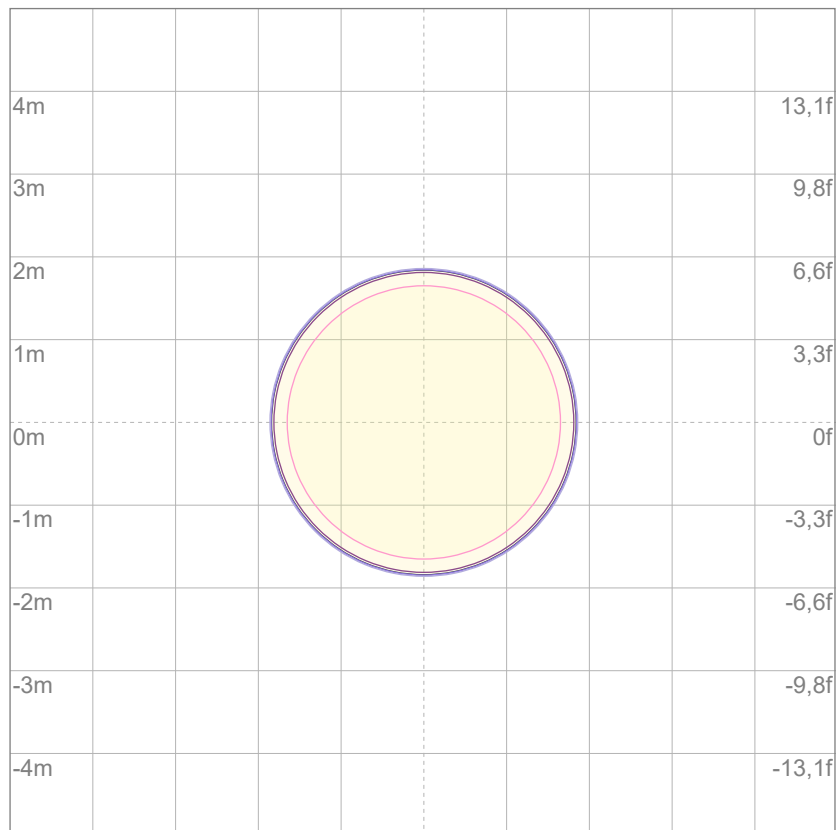
| | |
|-----|---------|
| 10% | 209 cd |
| 20% | 419 cd |
| 30% | 628 cd |
| 40% | 837 cd |
| 50% | 1047 cd |
| 60% | 1256 cd |
| 70% | 1465 cd |
| 80% | 1675 cd |

Conditions:

Number of c-planes: 2

Candela at center: 2093 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,628 lx |
| 5% | 1,05 lx |
| 10% | 2,09 lx |
| 30% | 6,28 lx |
| 50% | 10,5 lx |

Conditions:

Number of c-planes: 2

Lux at center: 20,9 lx

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



Total lumen output:

37,2 lm

Peak candela output:

117 cd

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Max Zoom

Target:

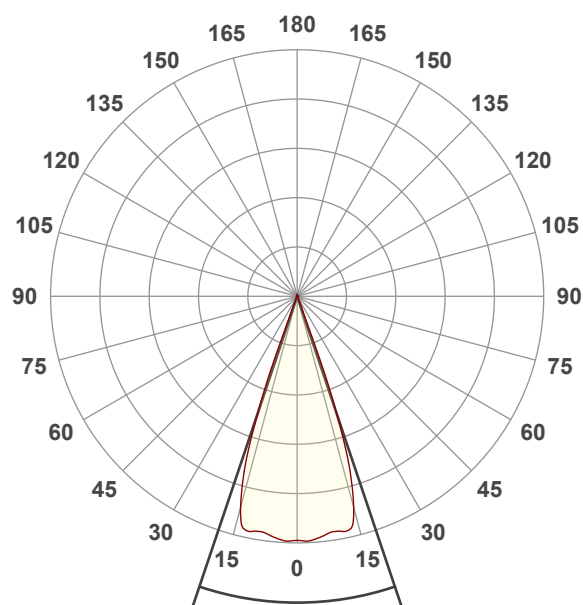
Blue

Operator:

Paolo Carvone

Date and time:

03/12/2020 17:02:40

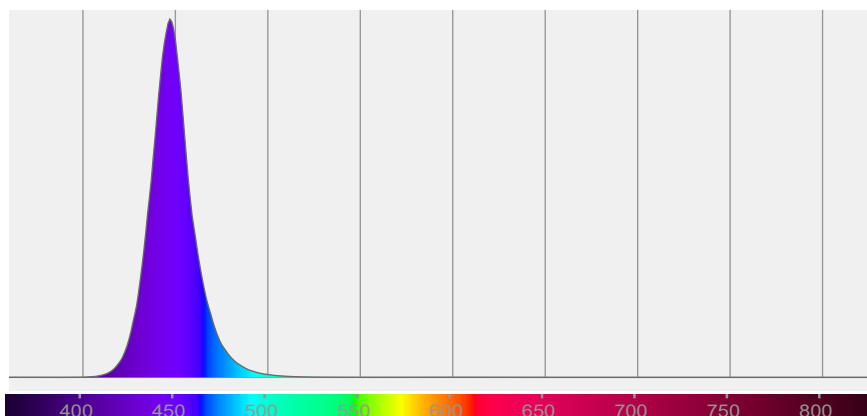


Beam angle 50%: 37,2°

Field angle 10%: 41,9°

Cut off angle 2.5%: 44,1°

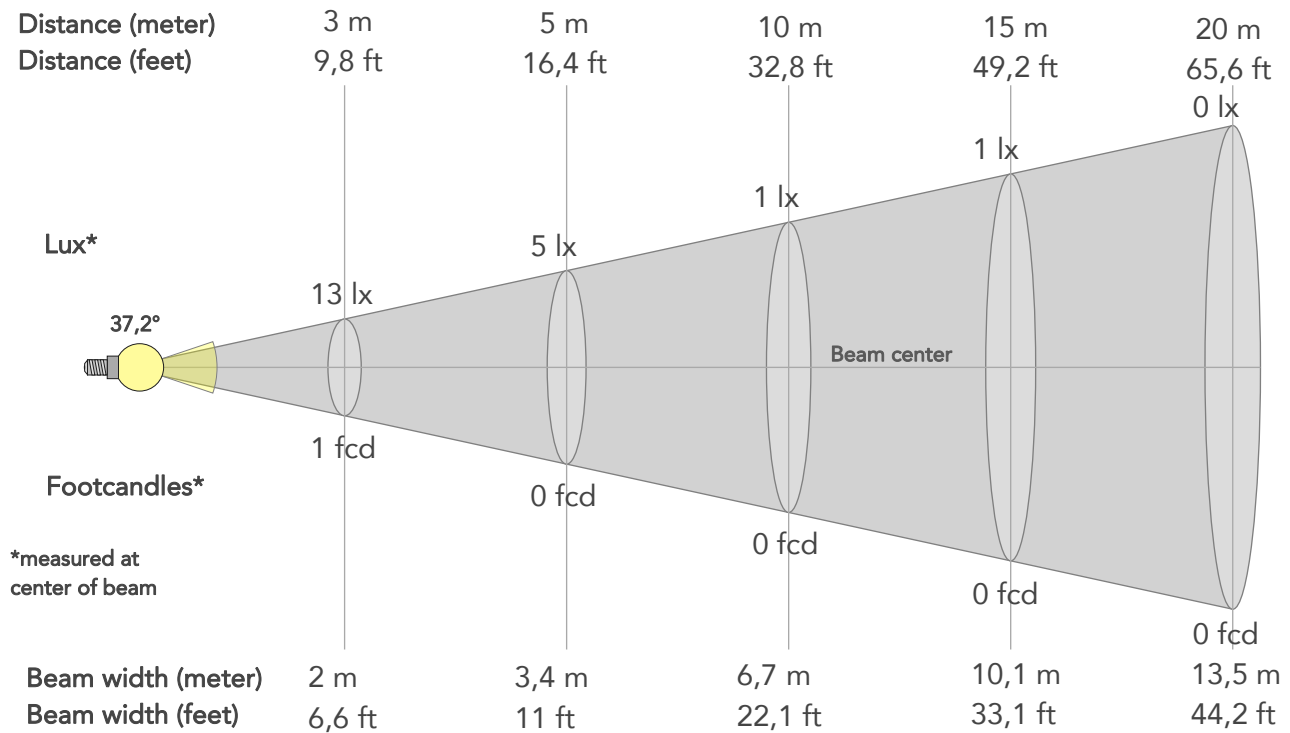
Spectra



BEAM DETAILS



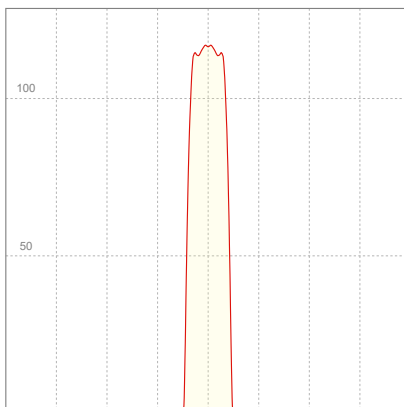
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 37,2° | 41,9° | 44,1° | 99,9% | 99,9% |



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 | 117lx | 29lx | 13lx | 7lx | 5lx | 2lx | 1lx | 1lx | 0lx | 0lx | 0lx | 0lx | 0lx |
| Footcand. | 11fcd | 3fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,7m | 1,3m | 2m | 2,7m | 3,4m | 5,1m | 6,7m | 10,1m | 13,5m | 16,8m | 20,2m | 26,9m | 33,7m |
| Beam wid. | 2,2ft | 4,4ft | 6,6ft | 8,8ft | 11ft | 16,6ft | 22,1ft | 33,1ft | 44,2ft | 55,2ft | 66,3ft | 88,4ft | 110,4ft |

LINEAR DISTRIBUTION DIAGRAM

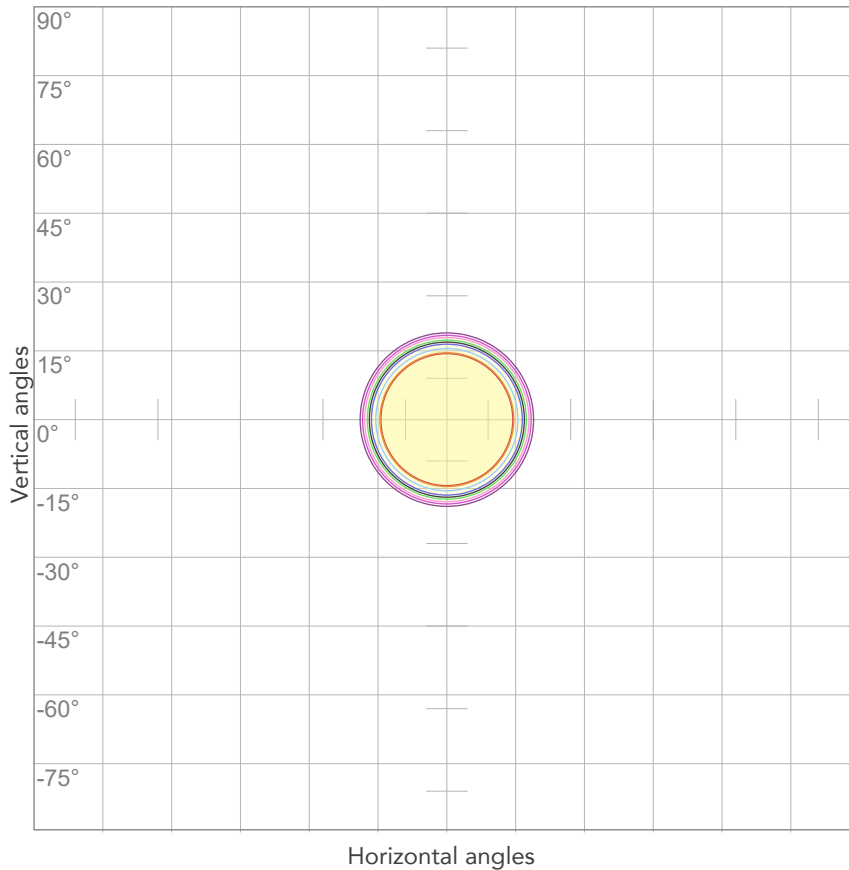


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 225V | 0,091A | 18,0W | 0,88 | 2lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



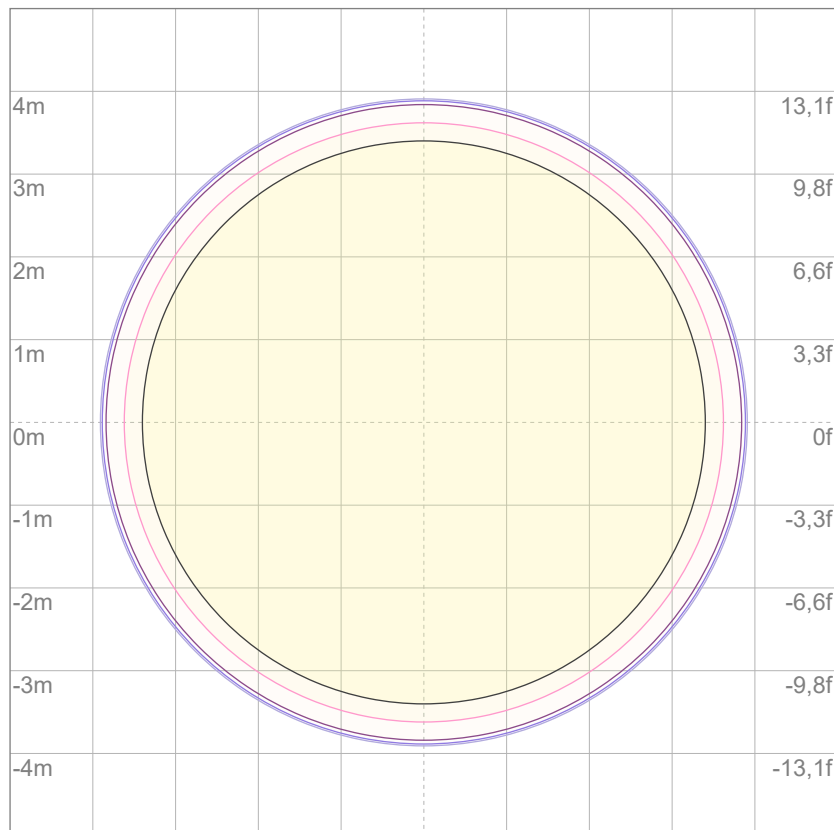
| | |
|-----|-------|
| 10% | 12 cd |
| 20% | 23 cd |
| 30% | 35 cd |
| 40% | 47 cd |
| 50% | 58 cd |
| 60% | 70 cd |
| 70% | 82 cd |
| 80% | 93 cd |

Conditions:

Number of c-planes: 2

Candela at center: 117 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 35,0m lx |
| 5% | 58,3m lx |
| 10% | 0,117 lx |
| 30% | 0,350 lx |
| 50% | 0,583 lx |

Conditions:

Number of c-planes: 2

Lux at center: 1,17 lx

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



Total lumen output:

41,2 lm

Peak candela output:

546 cd

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Min Zoom

Target:

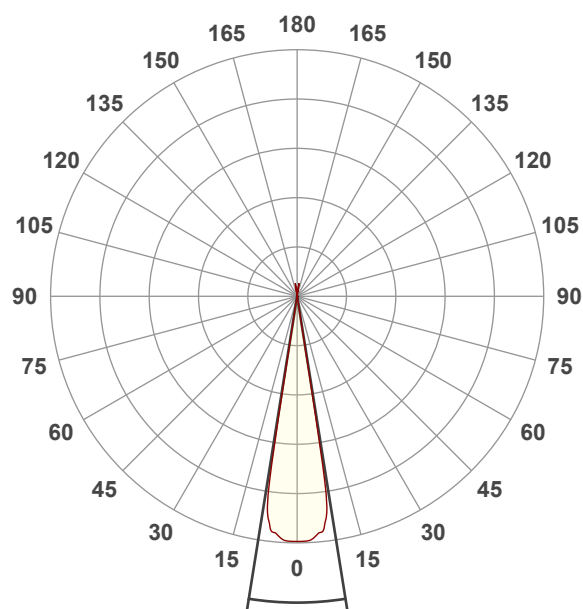
Blue

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:53:29

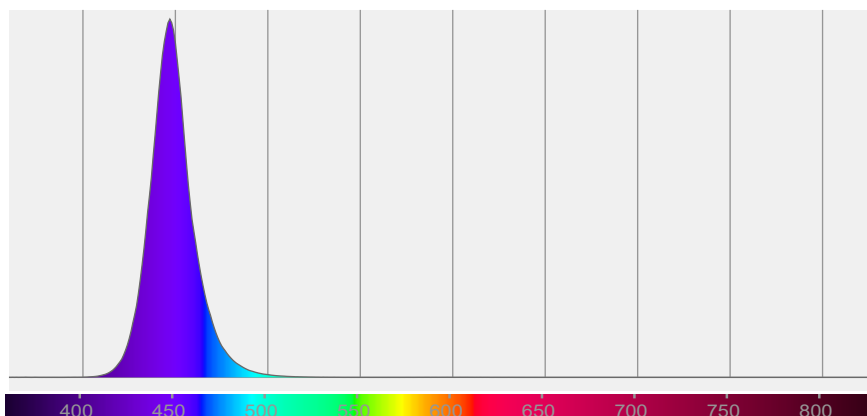


Beam angle 50%: 18,2°

Field angle 10%: 20°

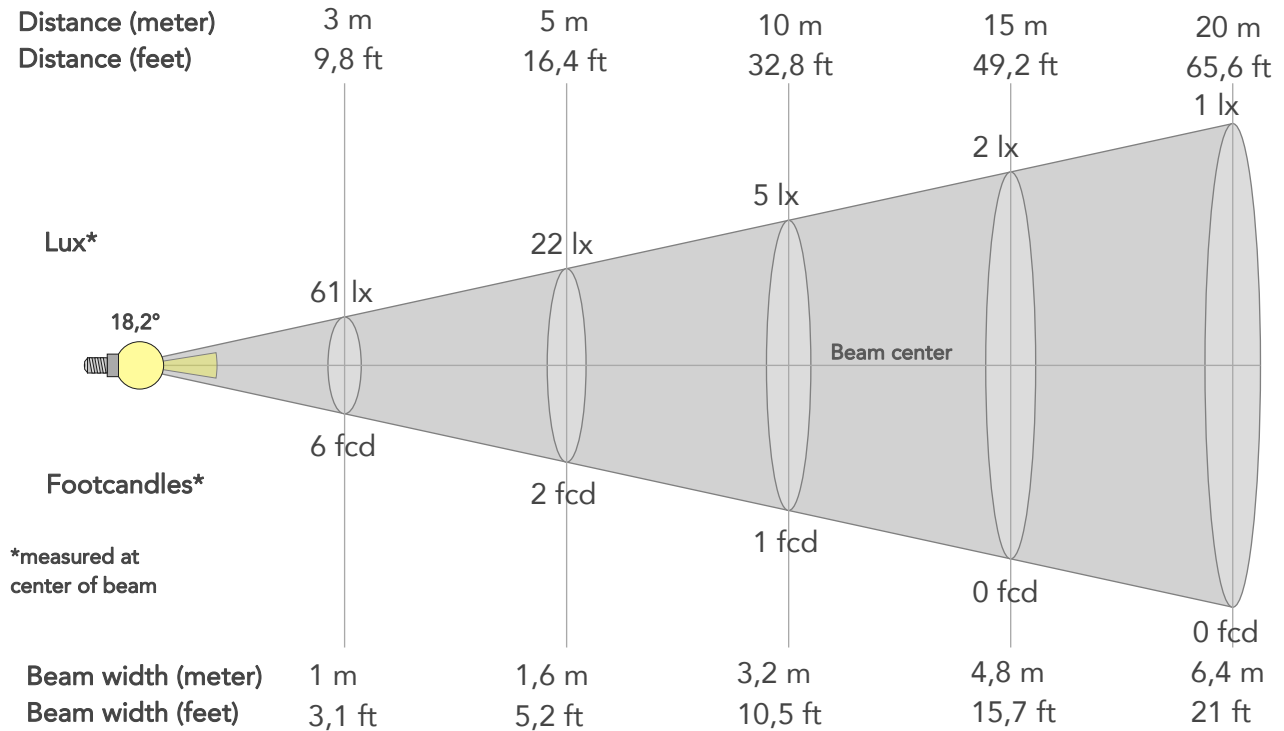
Cut off angle 2.5%: 20,3°

Spectra



BEAM DETAILS

| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 18,2° | 20° | 20,3° | 100,0% | 100,0% |



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 | 546lx | 136lx | 61lx | 34lx | 22lx | 10lx | 5lx | 2lx | 1lx | 1lx | 1lx | 0lx | 0lx |
| Footcand. | 51fcd | 13fcd | 6fcd | 3fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 1m | 1,3m | 1,6m | 2,4m | 3,2m | 4,8m | 6,4m | 8m | 9,6m | 12,8m | 16m |
| Beam wid. | 1,1ft | 2,1ft | 3,1ft | 4,2ft | 5,2ft | 7,9ft | 10,5ft | 15,7ft | 21ft | 26,2ft | 31,5ft | 41,9ft | 52,4ft |

LINEAR DISTRIBUTION DIAGRAM

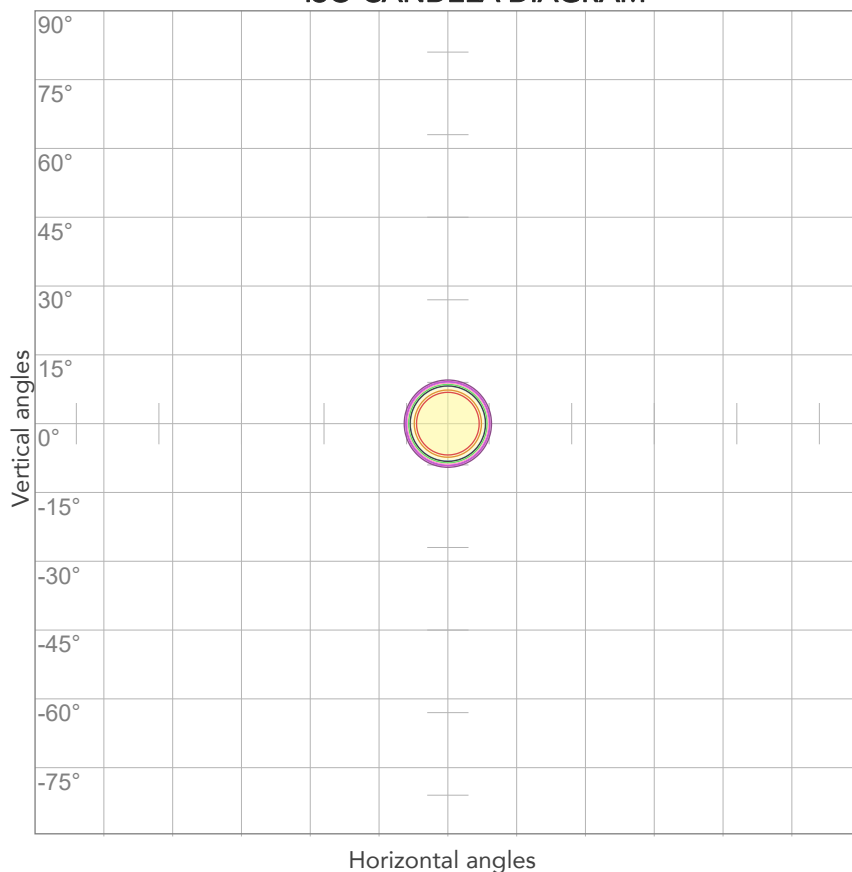


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,091A | 18,1W | 0,89 | 2lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



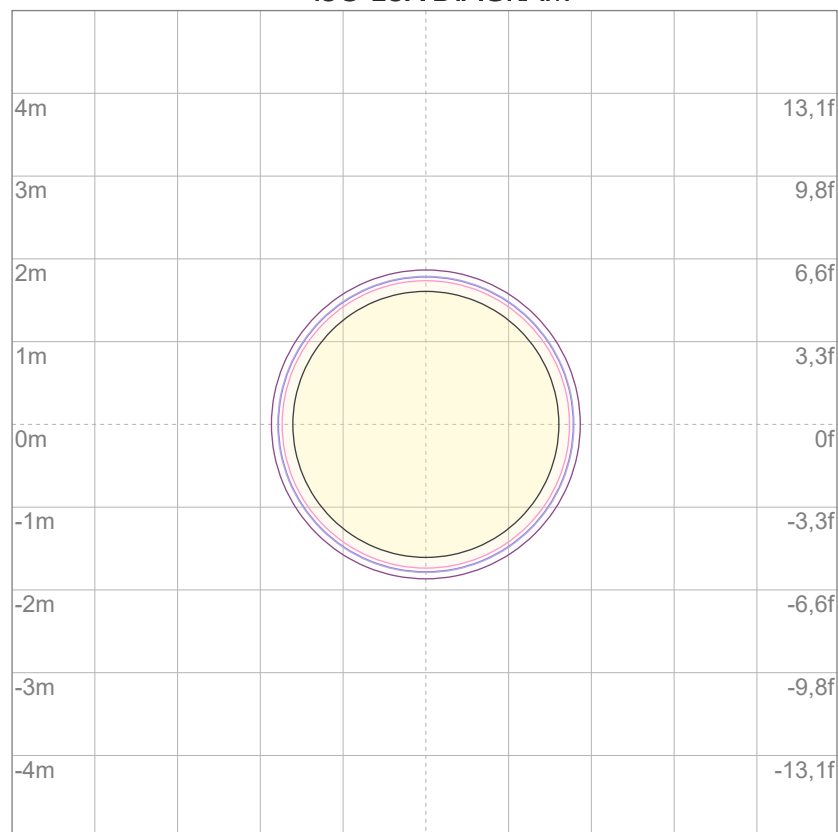
| | |
|-----|--------|
| 10% | 55 cd |
| 20% | 109 cd |
| 30% | 164 cd |
| 40% | 218 cd |
| 50% | 273 cd |
| 60% | 328 cd |
| 70% | 382 cd |
| 80% | 437 cd |

Conditions:

Number of c-planes: 2

Candela at center: 546 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,164 lx |
| 5% | 0,273 lx |
| 10% | 0,546 lx |
| 30% | 1,64 lx |
| 50% | 2,73 lx |

Conditions:

Number of c-planes: 2

Lux at center: 5,46 lx

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



Total lumen output:

203 lm

Peak candela output:

653 cd

Light quality:

CRI: 80,6

Color temperature:

3172 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Max Zoom

Target:

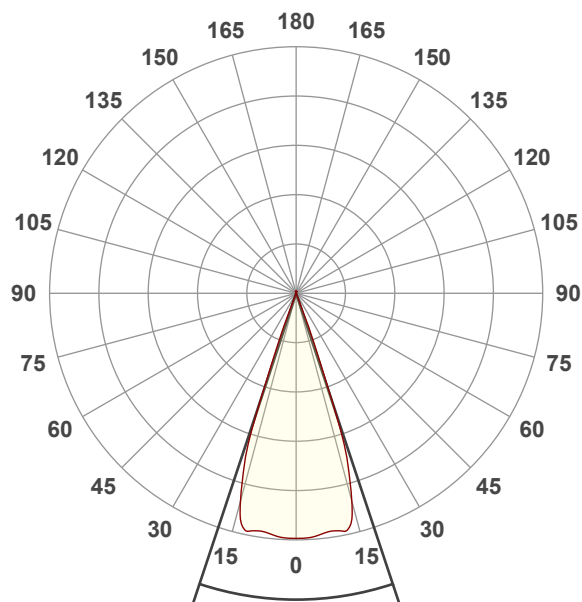
White

Operator:

Paolo Carvone

Date and time:

03/12/2020 17:04:23

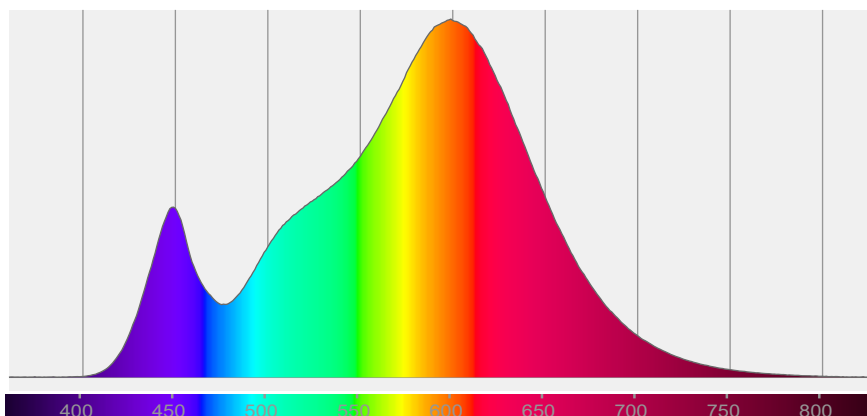


Beam angle 50%: 36,8°

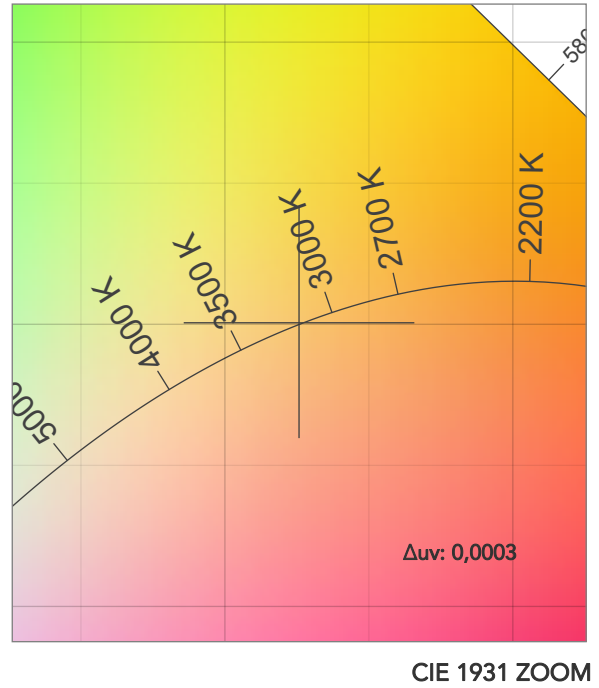
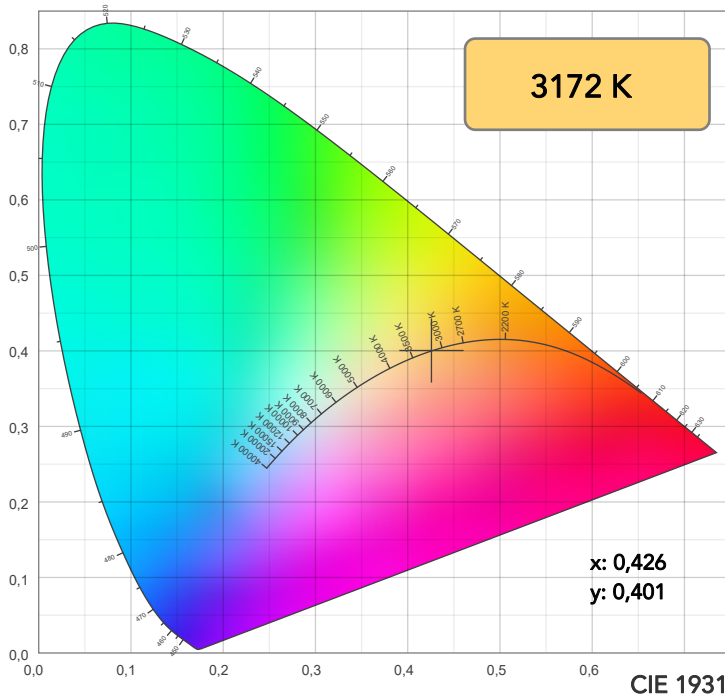
Field angle 10%: 41,7°

Cut off angle 2.5%: 43°

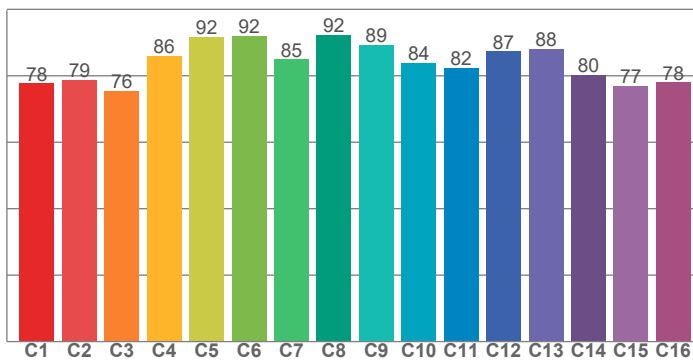
Spectra



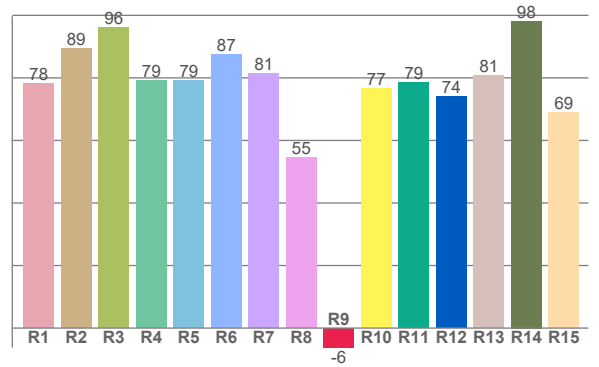
COLOR DETAILS



TM30: 84,0



CRI: 80,6 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 78,2 | 89,3 | 96,0 | 79,1 | 79,1 | 87,4 | 81,3 | 54,6 | -6,2 | 76,6 | 78,5 | 74,0 | 80,8 | 98,2 | 69,0 |

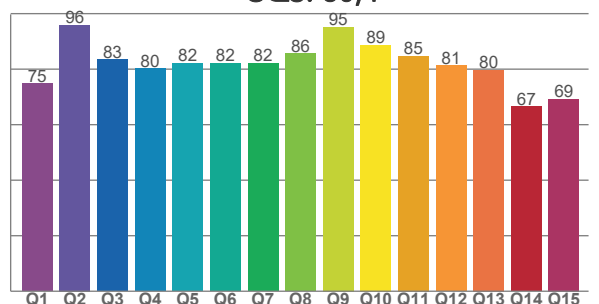
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 77,7 | 78,7 | 75,5 | 86,1 | 91,7 | 92,0 | 84,9 | 92,4 | 89,2 | 83,8 | 82,3 | 87,4 | 88,1 | 80,2 | 77,0 | 78,0 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 74,8 | 95,9 | 83,4 | 80,2 | 82,1 | 82,1 | 82,1 | 85,6 | 95,1 | 88,7 | 84,7 | 81,3 | 79,8 | 66,6 | 69,3 |

CQS: 80,4



COLOR PARAMETERS

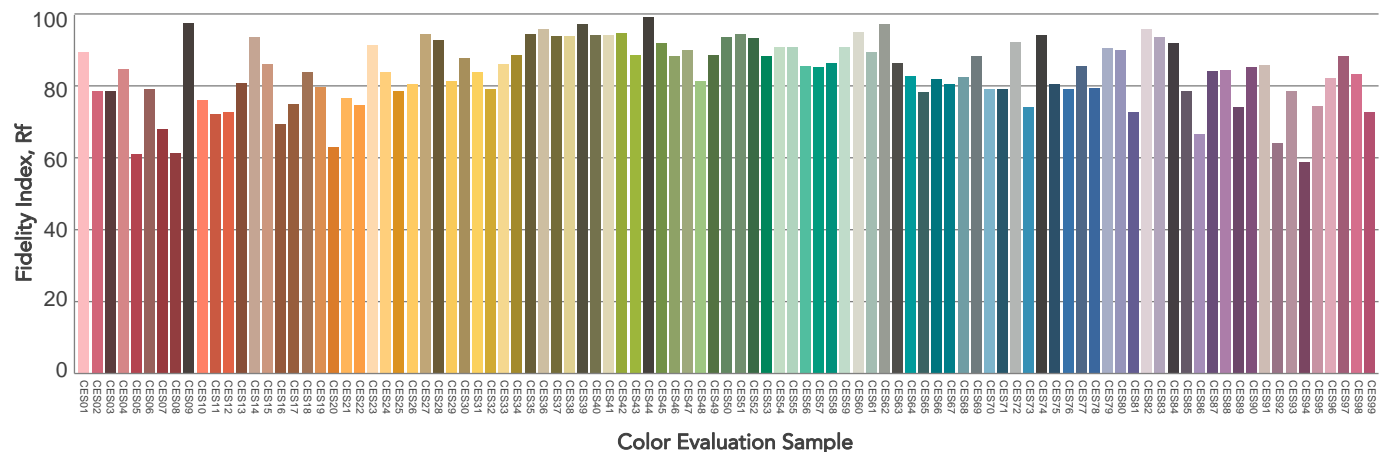
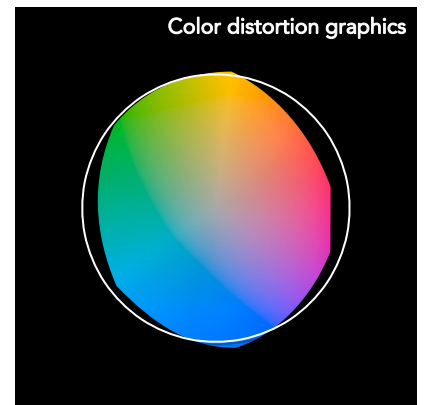
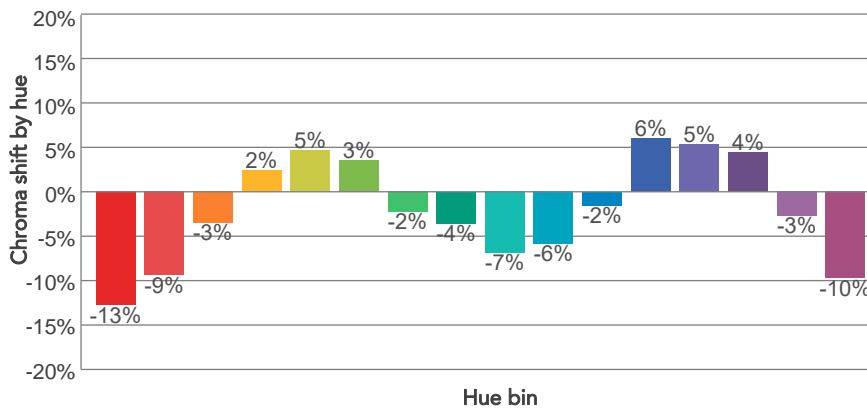
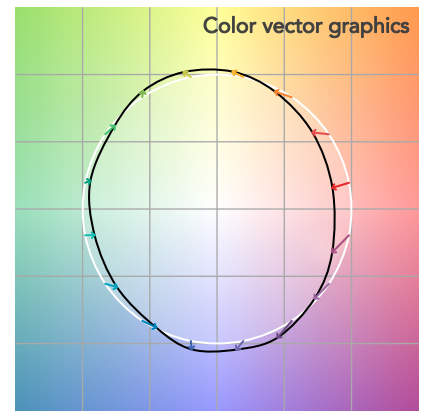
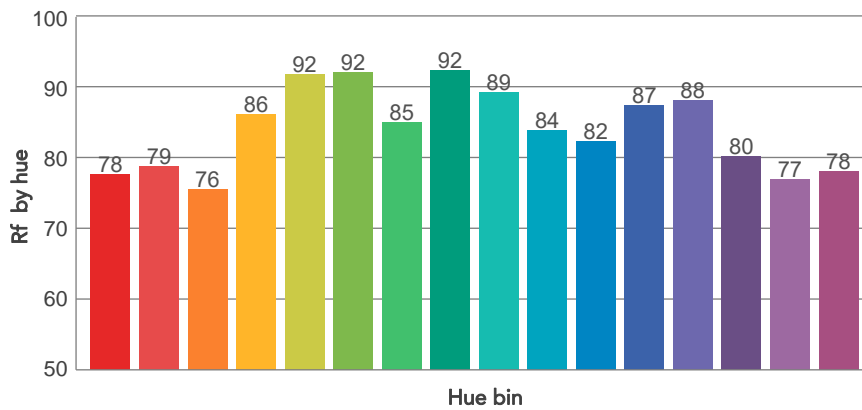
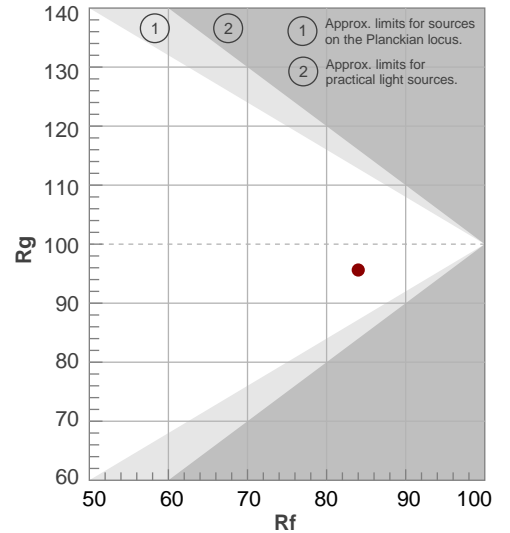
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 3172 K | 80,6 | -6,2 | 84,0 | 95,6 | 80,4 | 62 | 0,426 | 0,401 | 0,0003 |

TM30 DETAILS

Rf 84,0
Fidelity index Rf

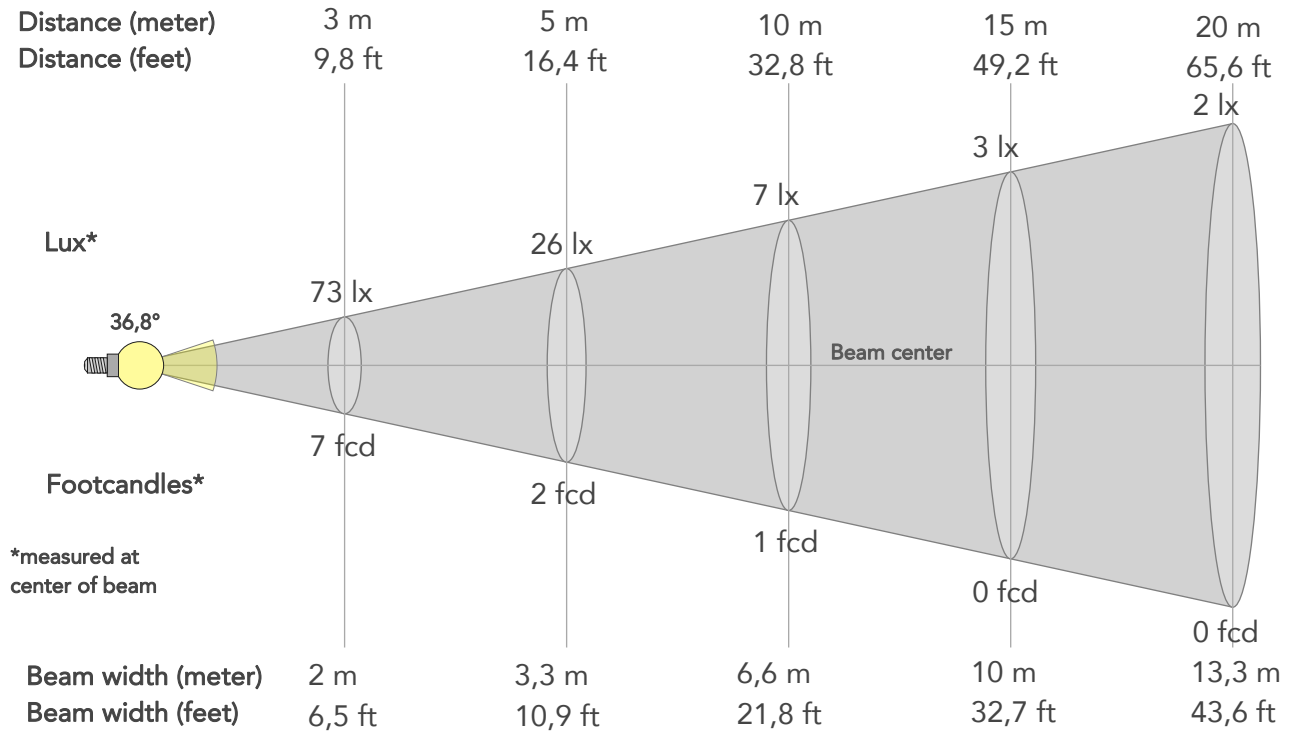
Rg 95,6
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|------|
| | | Chroma | Hue |
| 1 | 78 | -13% | -1% |
| 2 | 79 | -9% | 8% |
| 3 | 76 | -3% | 13% |
| 4 | 86 | 2% | 9% |
| 5 | 92 | 5% | 4% |
| 6 | 92 | 3% | -3% |
| 7 | 85 | -2% | -9% |
| 8 | 92 | -4% | -2% |
| 9 | 89 | -7% | 1% |
| 10 | 84 | -6% | 7% |
| 11 | 82 | -2% | 11% |
| 12 | 87 | 6% | 2% |
| 13 | 88 | 5% | -6% |
| 14 | 80 | 4% | -16% |
| 15 | 77 | -3% | -15% |
| 16 | 78 | -10% | -15% |



BEAM DETAILS

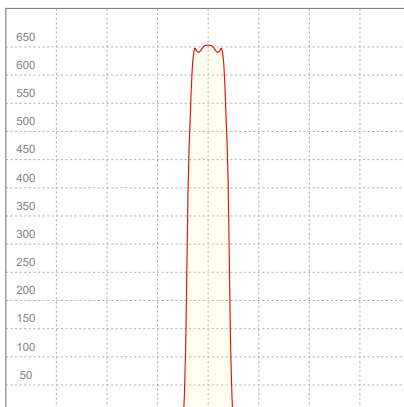
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 36,8° | 41,7° | 43° | 100,0% | 100,0% |



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 | 653lx | 163lx | 73lx | 41lx | 26lx | 12lx | 7lx | 3lx | 2lx | 1lx | 1lx | 0lx | 0lx |
| Footcand. | 61fcd | 15fcd | 7fcd | 4fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,7m | 1,3m | 2m | 2,7m | 3,3m | 5m | 6,6m | 10m | 13,3m | 16,6m | 19,9m | 26,6m | 33,2m |
| Beam wid. | 2,2ft | 4,4ft | 6,5ft | 8,7ft | 10,9ft | 16,4ft | 21,8ft | 32,7ft | 43,6ft | 54,5ft | 65,4ft | 87,2ft | 109,1ft |

LINEAR DISTRIBUTION DIAGRAM

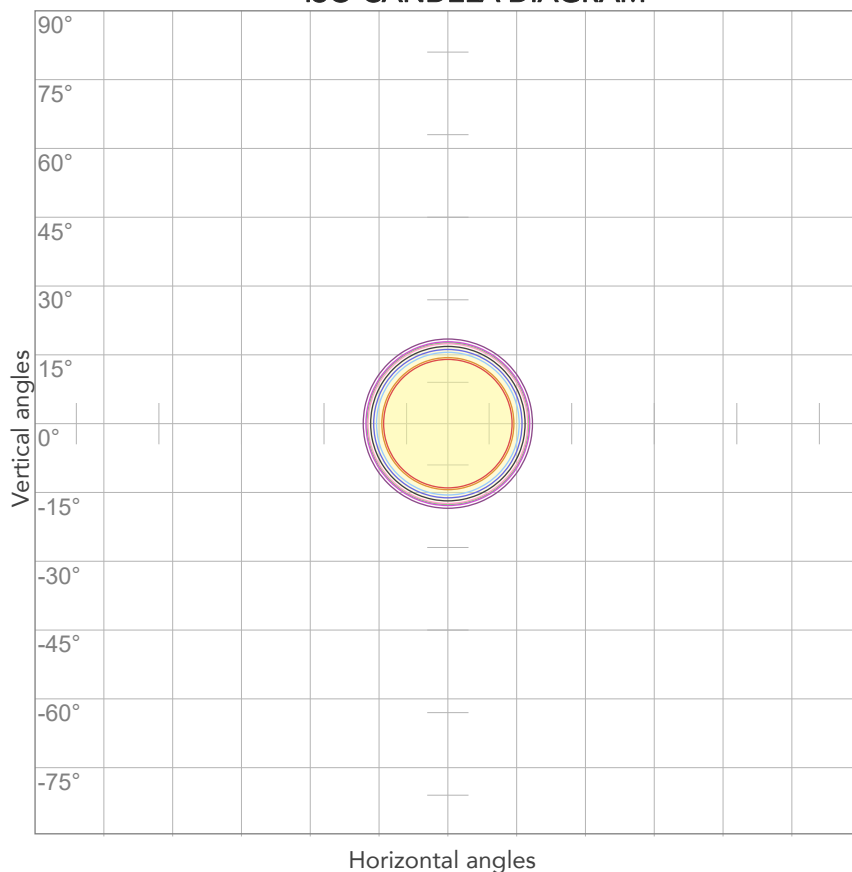


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,096A | 19,2W | 0,89 | 11lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



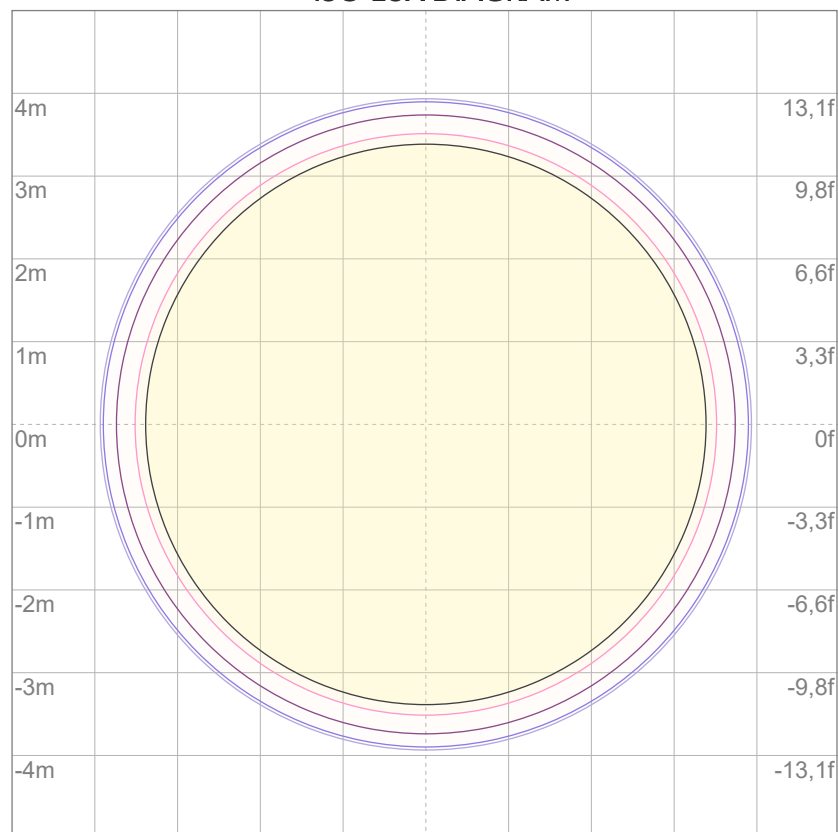
| | |
|-----|--------|
| 10% | 65 cd |
| 20% | 131 cd |
| 30% | 196 cd |
| 40% | 261 cd |
| 50% | 326 cd |
| 60% | 392 cd |
| 70% | 457 cd |
| 80% | 522 cd |

Conditions:

Number of c-planes: 2

Candela at center: 653 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,196 lx |
| 5% | 0,326 lx |
| 10% | 0,653 lx |
| 30% | 1,96 lx |
| 50% | 3,26 lx |

Conditions:

Number of c-planes: 2

Lux at center: 6,53 lx

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



Total lumen output:

225 lm

Peak candela output:

3004 cd

Light quality:

CRI: 80,7

Color temperature:

3167 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Min Zoom

Target:

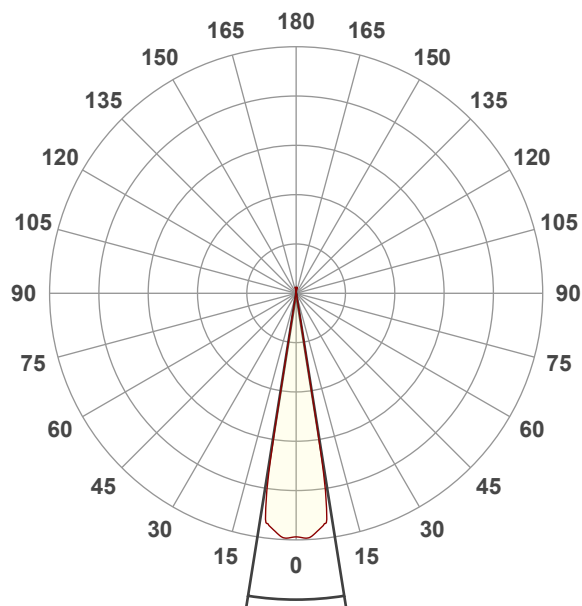
White

Operator:

Paolo Carvone

Date and time:

03/12/2020 16:55:16

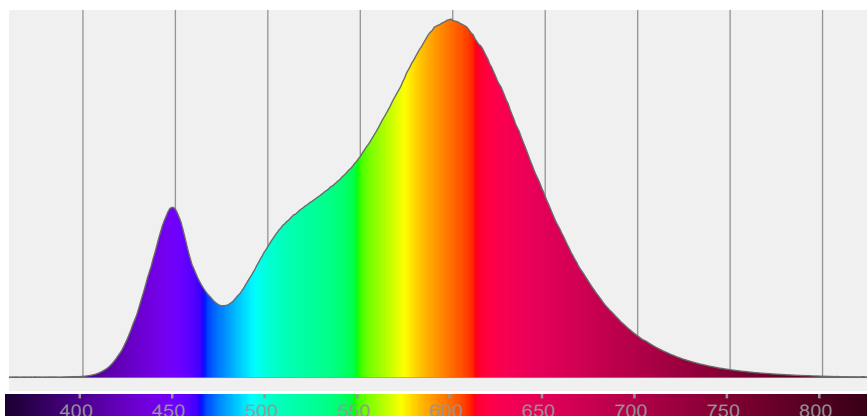


Beam angle 50%: 18,1°

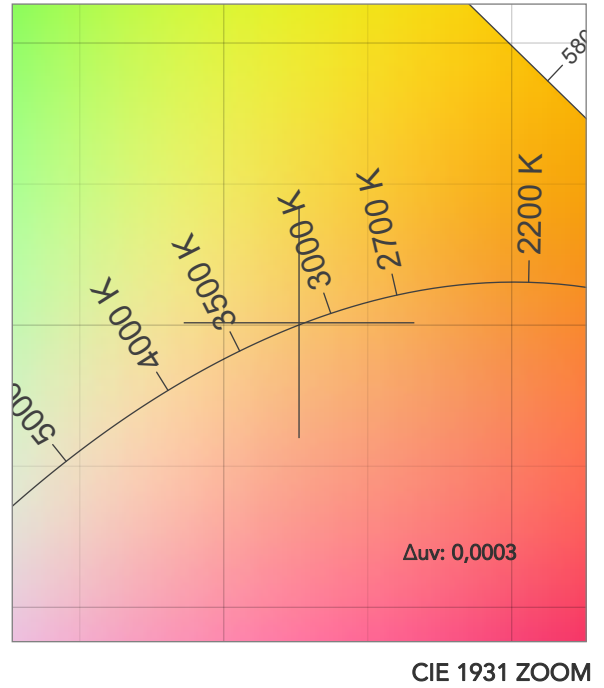
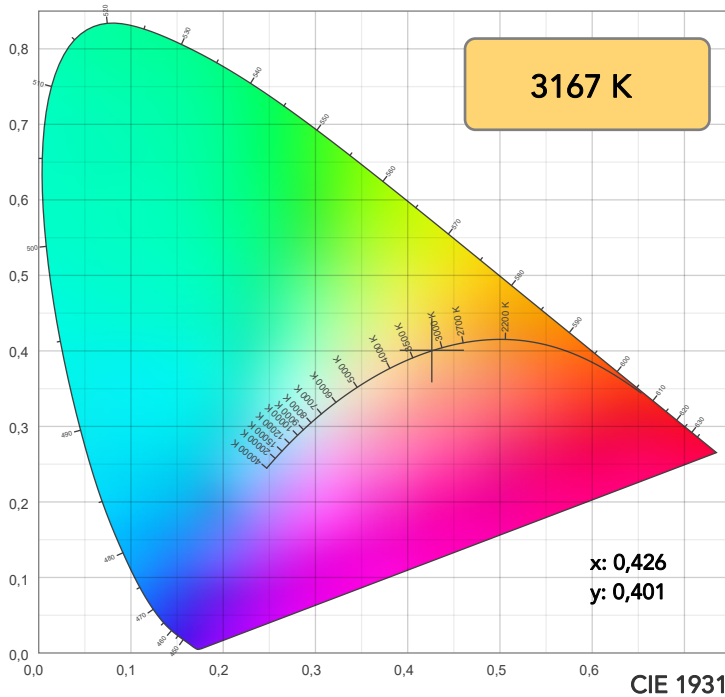
Field angle 10%: 19,2°

Cut off angle 2.5%: 20,4°

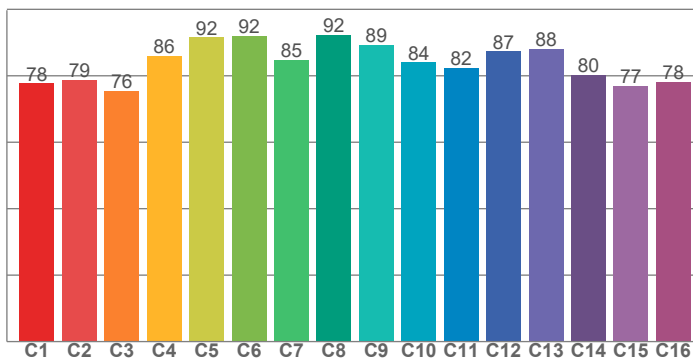
Spectra



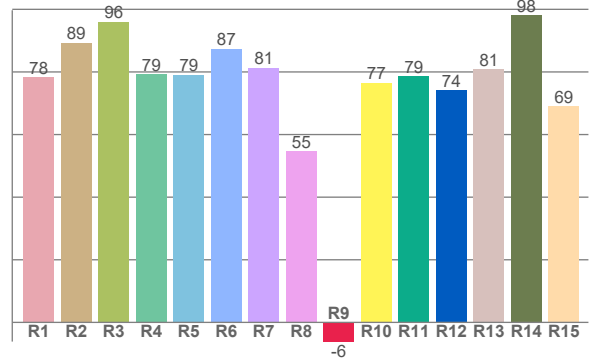
COLOR DETAILS



TM30: 84,0



CRI: 80,7 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 78,2 | 89,3 | 96,0 | 79,2 | 79,1 | 87,4 | 81,4 | 54,6 | -6,1 | 76,5 | 78,7 | 74,0 | 80,8 | 98,2 | 69,0 |

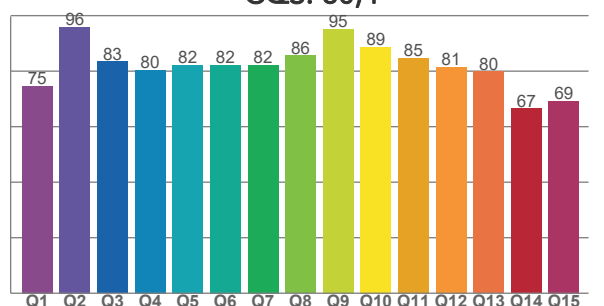
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 77,7 | 78,8 | 75,5 | 86,0 | 91,6 | 91,9 | 84,8 | 92,4 | 89,3 | 84,0 | 82,4 | 87,4 | 88,1 | 80,3 | 77,0 | 78,1 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 74,7 | 95,9 | 83,5 | 80,4 | 82,2 | 82,2 | 82,2 | 85,7 | 95,1 | 88,7 | 84,8 | 81,4 | 79,8 | 66,6 | 69,3 |

CQS: 80,4



COLOR PARAMETERS

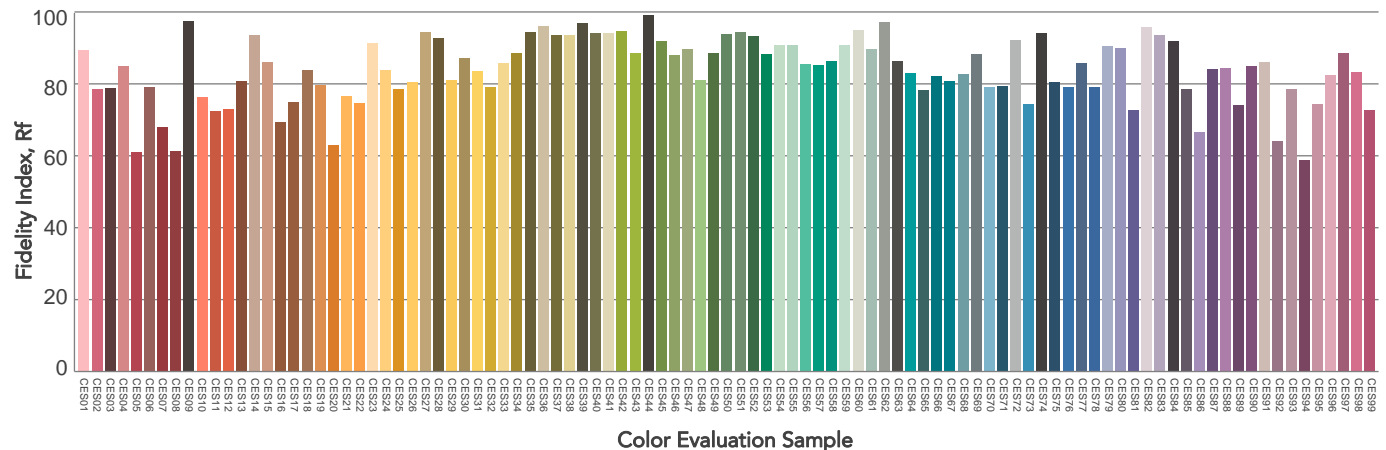
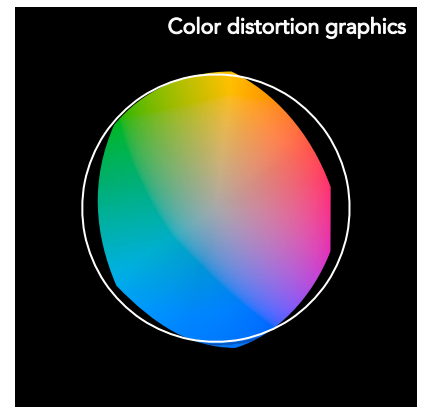
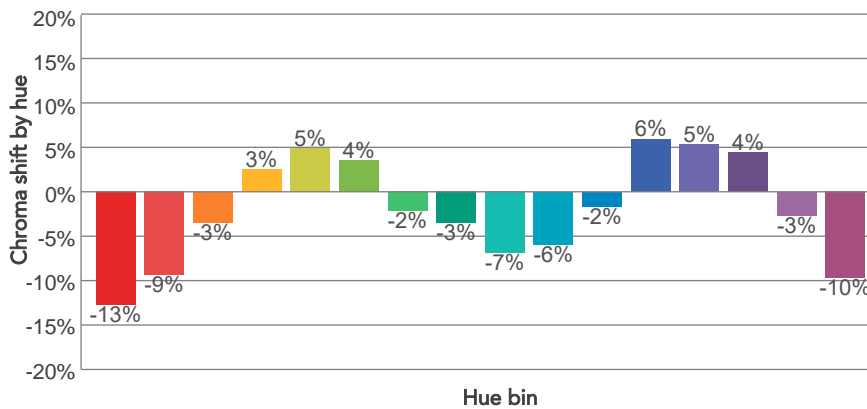
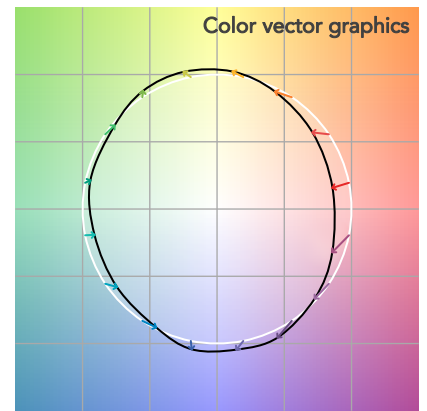
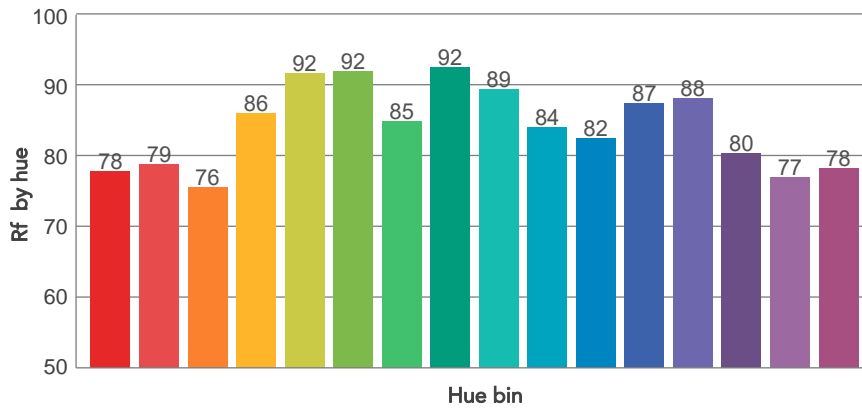
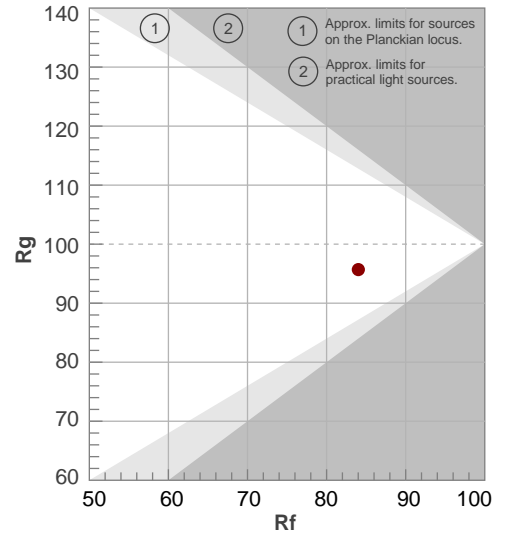
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 3167 K | 80,7 | -6,1 | 84,0 | 95,7 | 80,4 | 62 | 0,426 | 0,401 | 0,0003 |

TM30 DETAILS

Rf 84,0
Fidelity index Rf

Rg 95,7
Gammut index

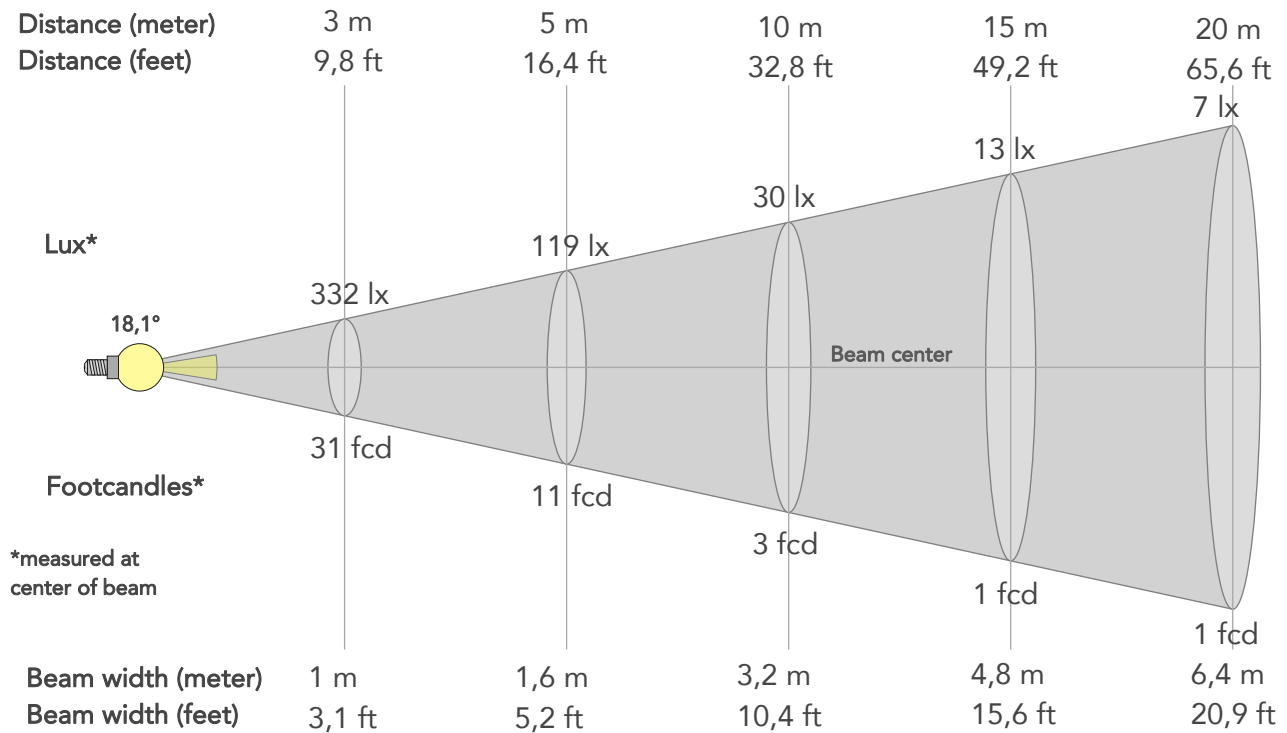
| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|------|
| | | Chroma | Hue |
| 1 | 78 | -13% | -1% |
| 2 | 79 | -9% | 8% |
| 3 | 76 | -3% | 13% |
| 4 | 86 | 3% | 9% |
| 5 | 92 | 5% | 4% |
| 6 | 92 | 4% | -3% |
| 7 | 85 | -2% | -9% |
| 8 | 92 | -3% | -3% |
| 9 | 89 | -7% | 1% |
| 10 | 84 | -6% | 7% |
| 11 | 82 | -2% | 11% |
| 12 | 87 | 6% | 2% |
| 13 | 88 | 5% | -6% |
| 14 | 80 | 4% | -16% |
| 15 | 77 | -3% | -15% |
| 16 | 78 | -10% | -15% |



BEAM DETAILS



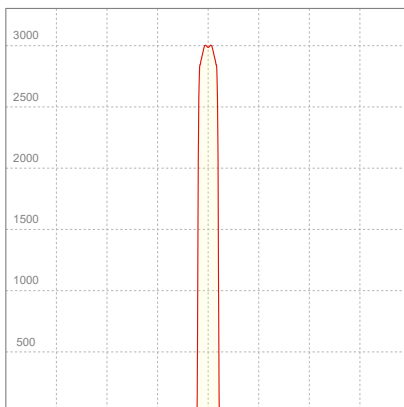
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 18,1° | 19,2° | 20,4° | 100,0% | 100,0% |



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 | 2987lx | 747lx | 332lx | 187lx | 119lx | 53lx | 30lx | 13lx | 7lx | 5lx | 3lx | 2lx | 1lx |
| Footcand. | 277fcd | 69fcd | 31fcd | 17fcd | 11fcd | 5fcd | 3fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 1m | 1,3m | 1,6m | 2,4m | 3,2m | 4,8m | 6,4m | 7,9m | 9,5m | 12,7m | 15,9m |
| Beam wid. | 1ft | 2,1ft | 3,1ft | 4,2ft | 5,2ft | 7,8ft | 10,4ft | 15,6ft | 20,9ft | 26,1ft | 31,3ft | 41,7ft | 52,1ft |

LINEAR DISTRIBUTION DIAGRAM

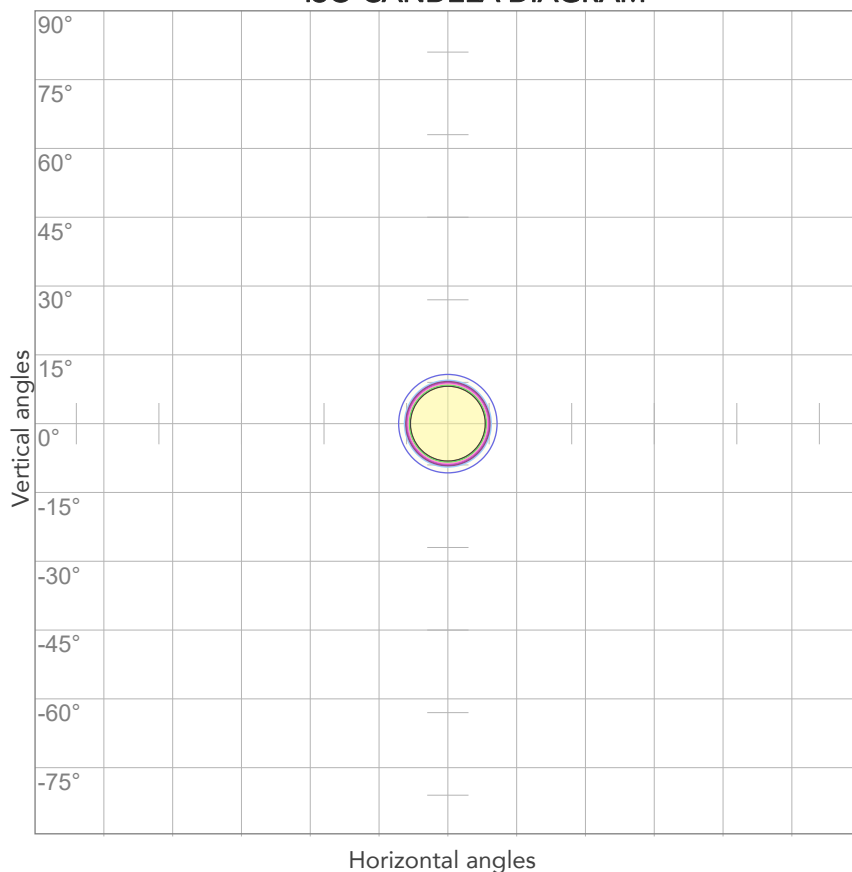


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,097A | 19,3W | 0,89 | 12lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



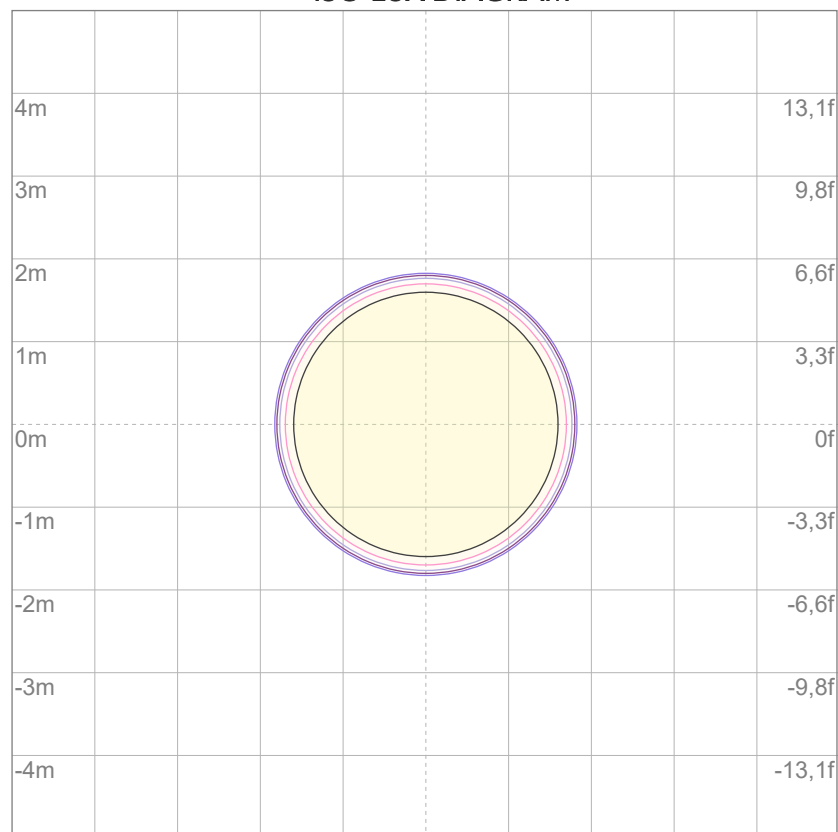
| | |
|-----|---------|
| 10% | 299 cd |
| 20% | 597 cd |
| 30% | 896 cd |
| 40% | 1195 cd |
| 50% | 1493 cd |
| 60% | 1792 cd |
| 70% | 2091 cd |
| 80% | 2389 cd |

Conditions:

Number of c-planes: 2

Candela at center: 2987 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,896 lx |
| 5% | 1,49 lx |
| 10% | 2,99 lx |
| 30% | 8,96 lx |
| 50% | 14,9 lx |

Conditions:

Number of c-planes: 2

Lux at center: 29,9 lx

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



Total lumen output:

293 lm

Peak candela output:

928 cd

Light quality:

CRI: 92,8

Color temperature:

2842 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Max Zoom

Target:

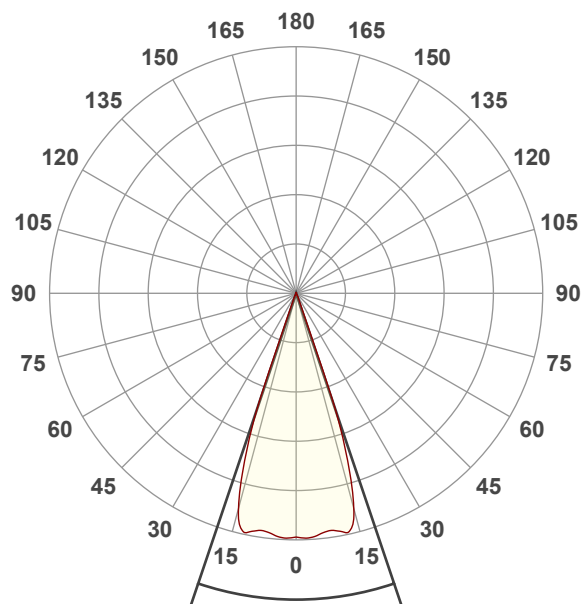
2800K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:29:41

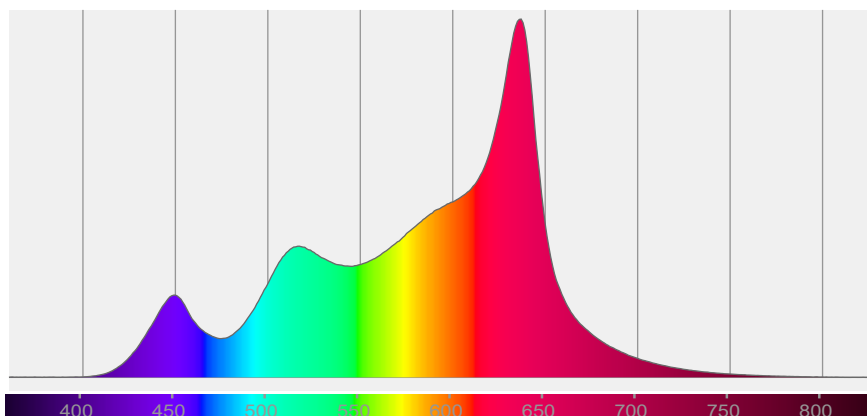


Beam angle 50%: 37,3°

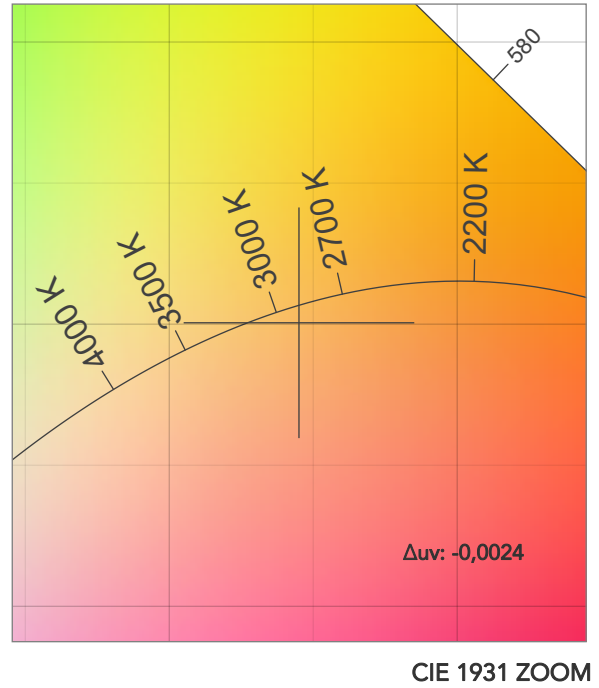
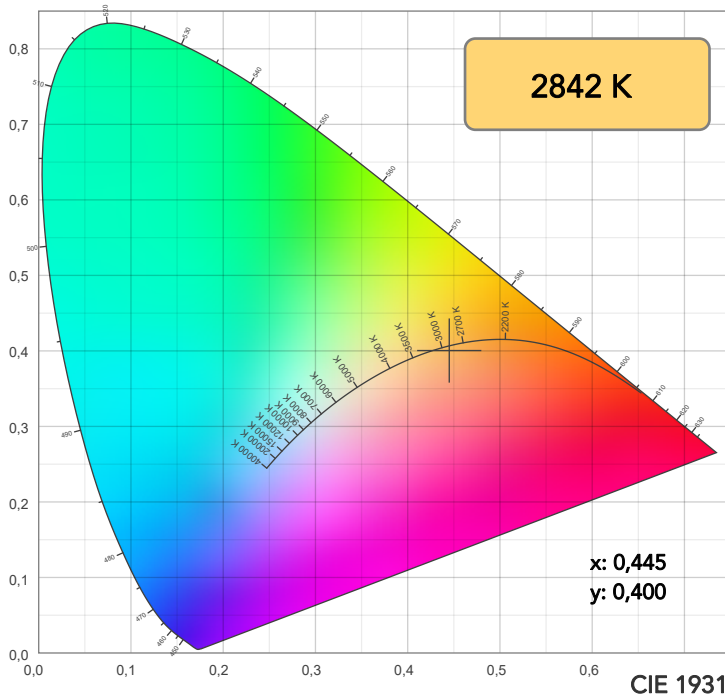
Field angle 10%: 41°

Cut off angle 2.5%: 43,9°

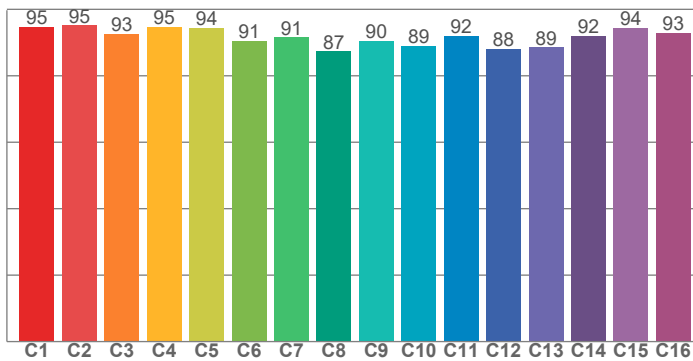
Spectra



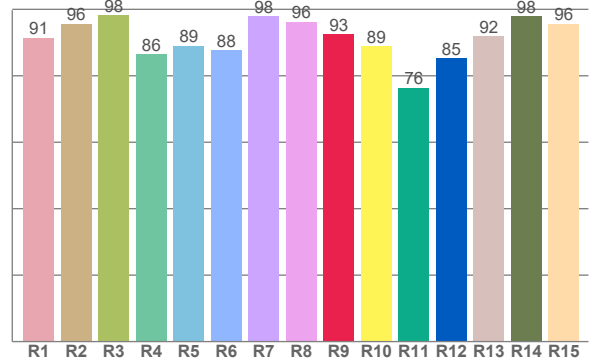
COLOR DETAILS



TM30: 92,3



CRI: 92,8 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 91,4 | 95,6 | 98,1 | 86,4 | 89,0 | 87,7 | 97,9 | 96,2 | 92,6 | 88,9 | 76,4 | 85,3 | 91,9 | 97,9 | 95,6 |

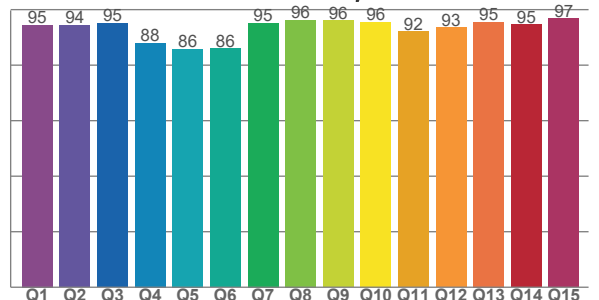
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,7 | 95,1 | 92,6 | 94,7 | 94,5 | 90,5 | 91,5 | 87,3 | 90,4 | 89,1 | 92,0 | 88,1 | 88,6 | 92,0 | 94,5 | 93,0 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,5 | 94,4 | 95,1 | 88,0 | 85,9 | 85,9 | 95,2 | 96,2 | 96,0 | 95,6 | 92,1 | 93,5 | 95,5 | 94,7 | 96,8 |

CQS: 92,1



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 |
| 2842 K | 92,8 | 92,6 | 92,3 | 105,0 | 92,1 | 82 | 0,445 | 0,400 | -0,0024 |

TM30 DETAILS

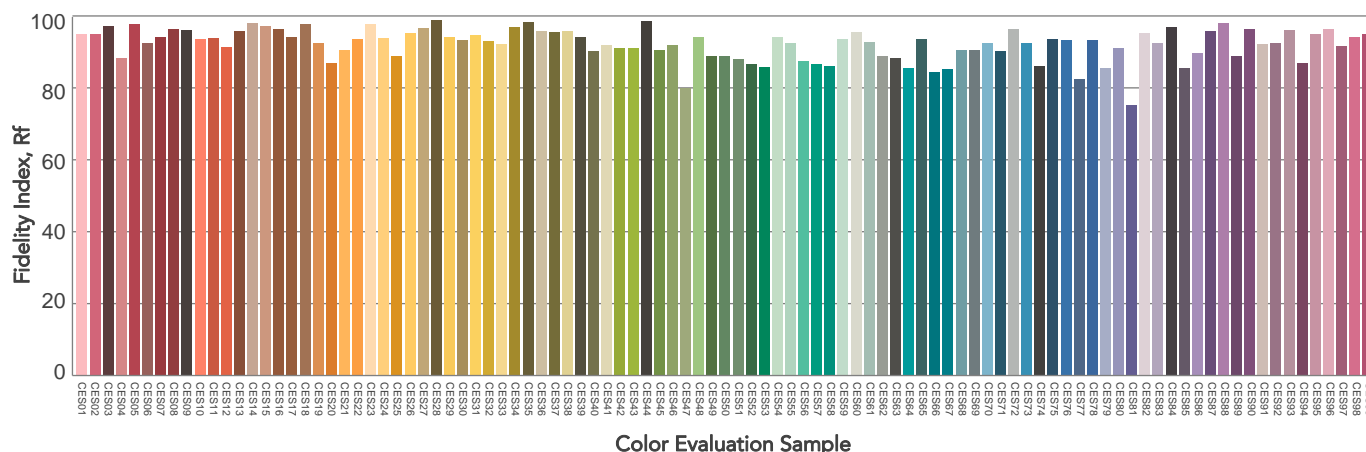
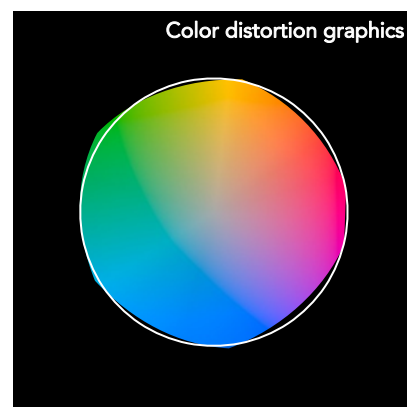
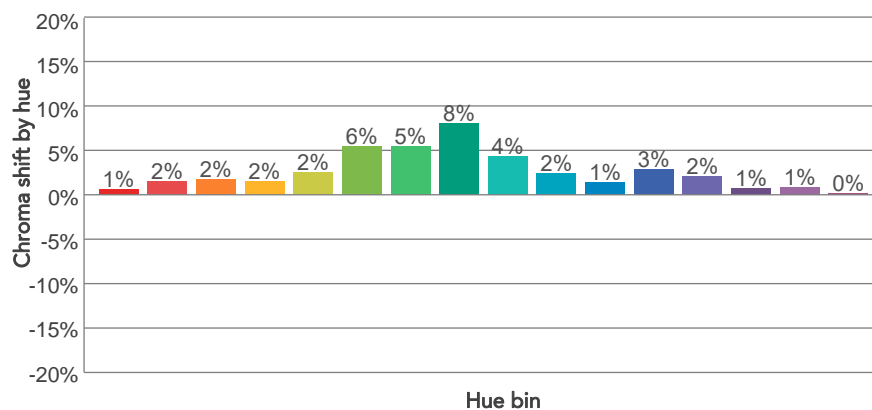
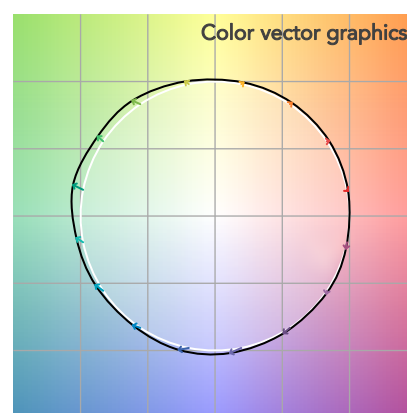
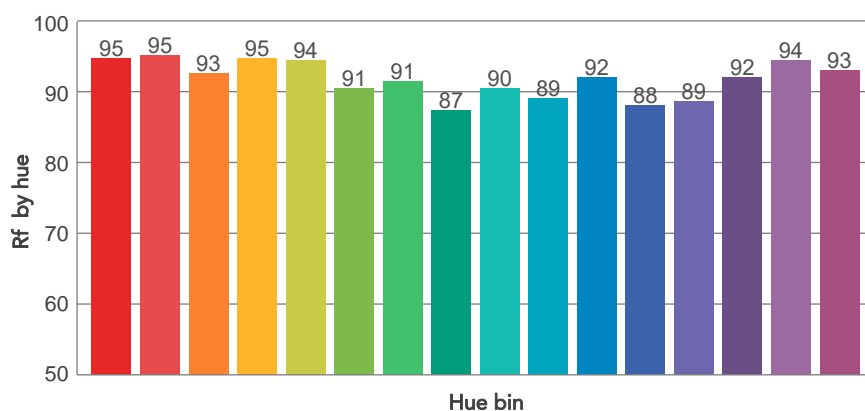
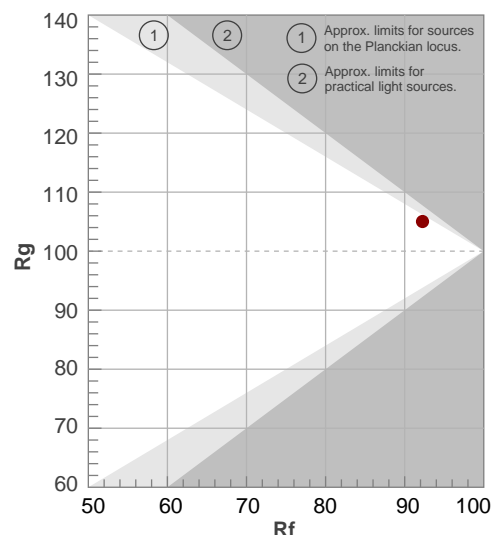
Rf 92,3

Fidelity index Rf

Rg 105,0

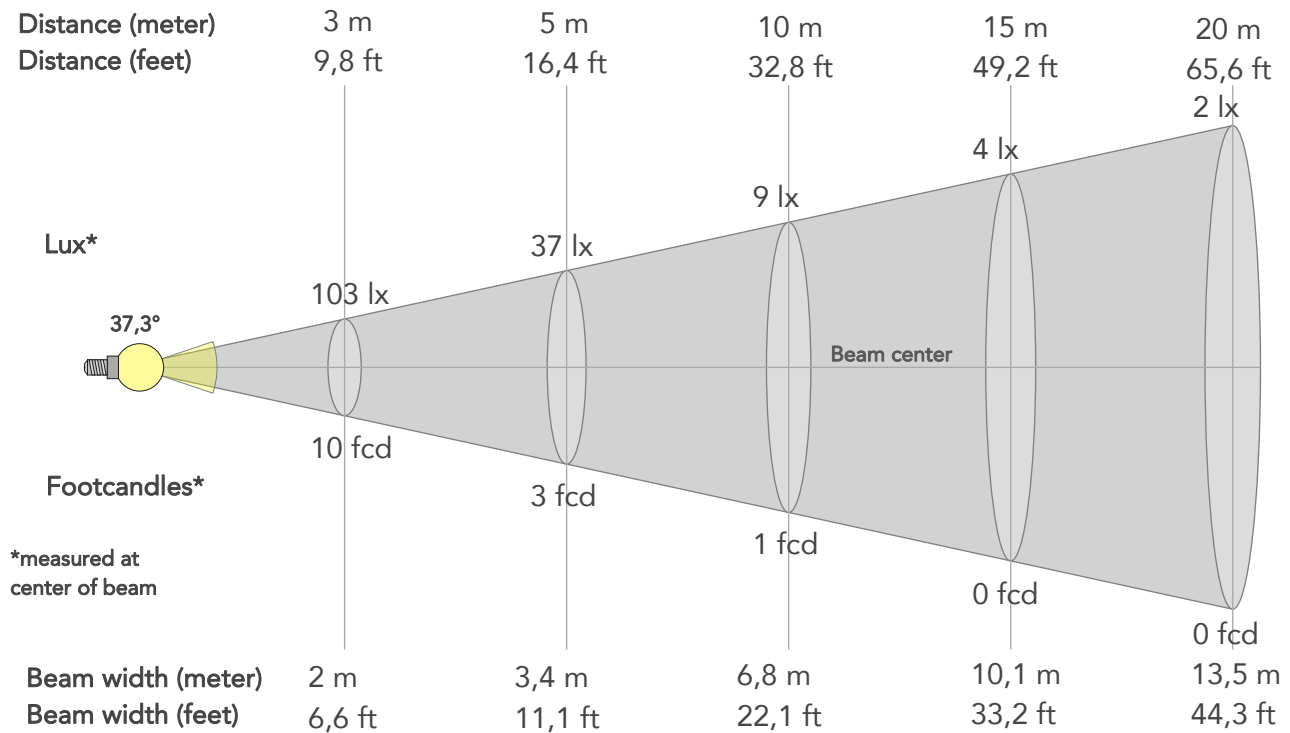
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 95 | 1% | -1% |
| 2 | 95 | 2% | -1% |
| 3 | 93 | 2% | -1% |
| 4 | 95 | 2% | -1% |
| 5 | 94 | 2% | 2% |
| 6 | 91 | 6% | 3% |
| 7 | 91 | 5% | -1% |
| 8 | 87 | 8% | -2% |
| 9 | 90 | 4% | -4% |
| 10 | 89 | 2% | -7% |
| 11 | 92 | 1% | -6% |
| 12 | 88 | 3% | -7% |
| 13 | 89 | 2% | -9% |
| 14 | 92 | 1% | -6% |
| 15 | 94 | 1% | -2% |
| 16 | 93 | 0% | -5% |



BEAM DETAILS

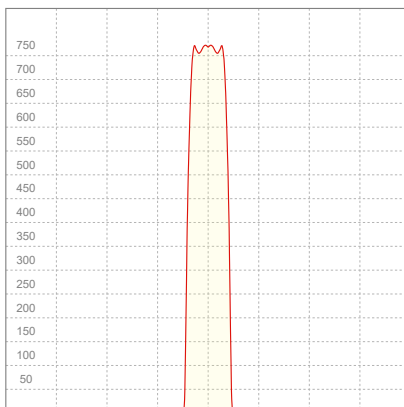
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 37,3° | 41° | 43,9° | 100,0% | 100,0% |



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 | 924lx | 231lx | 103lx | 58lx | 37lx | 16lx | 9lx | 4lx | 2lx | 1lx | 1lx | 1lx | 0lx |
| Footcand. | 86fcd | 21fcd | 10fcd | 5fcd | 3fcd | 2fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,7m | 1,4m | 2m | 2,7m | 3,4m | 5,1m | 6,8m | 10,1m | 13,5m | 16,9m | 20,3m | 27m | 33,8m |
| Beam wid. | 2,2ft | 4,5ft | 6,6ft | 8,8ft | 11,1ft | 16,6ft | 22,1ft | 33,2ft | 44,3ft | 55,4ft | 66,4ft | 88,6ft | 110,7ft |

LINEAR DISTRIBUTION DIAGRAM

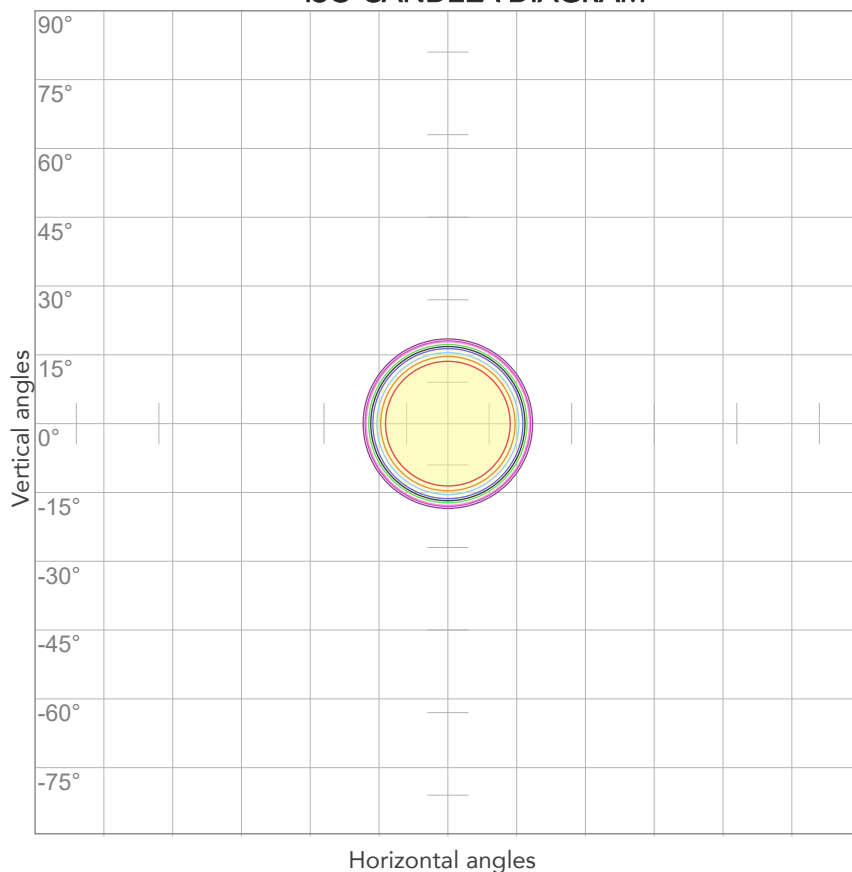


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,110A | 22,4W | 0,91 | 13lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



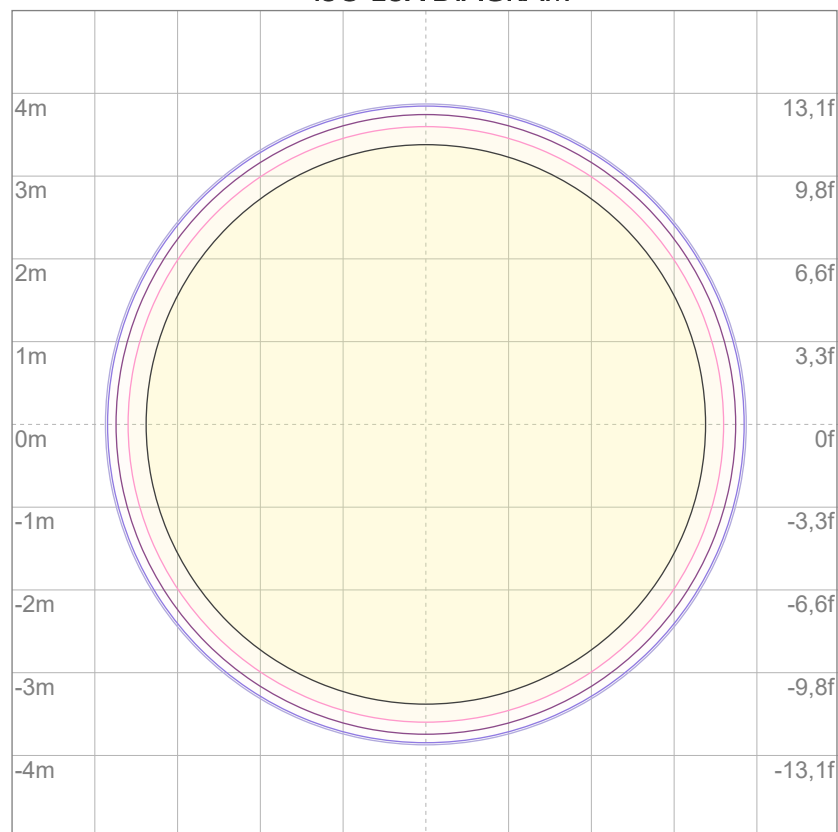
| | |
|-----|--------|
| 10% | 92 cd |
| 20% | 185 cd |
| 30% | 277 cd |
| 40% | 369 cd |
| 50% | 462 cd |
| 60% | 554 cd |
| 70% | 647 cd |
| 80% | 739 cd |

Conditions:

Number of c-planes: 2

Candela at center: 924 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,277 lx |
| 5% | 0,462 lx |
| 10% | 0,924 lx |
| 30% | 2,77 lx |
| 50% | 4,62 lx |

Conditions:

Number of c-planes: 2

Lux at center: 9,24 lx

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



Total lumen output:

329 lm

Peak candela output:

4478 cd

Light quality:

CRI: 93,1

Color temperature:

2842 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Min Zoom

Target:

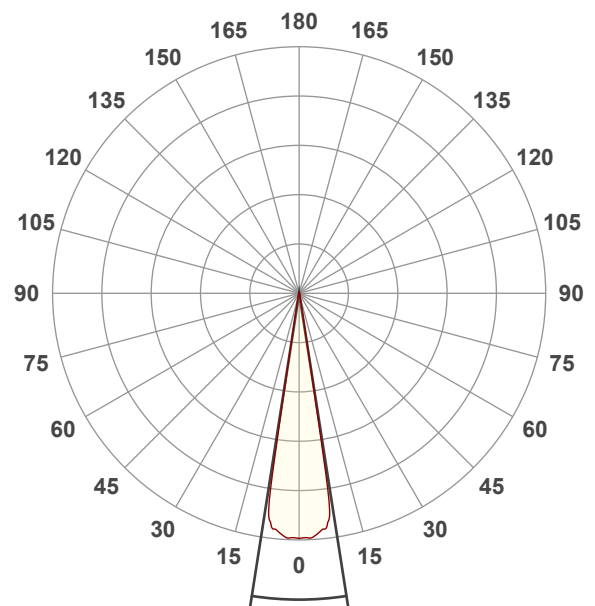
2800K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:15:02

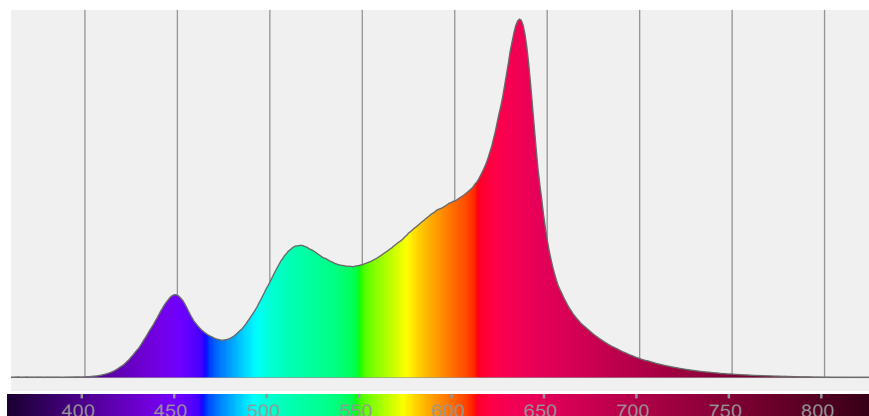


Beam angle 50%: 17,8°

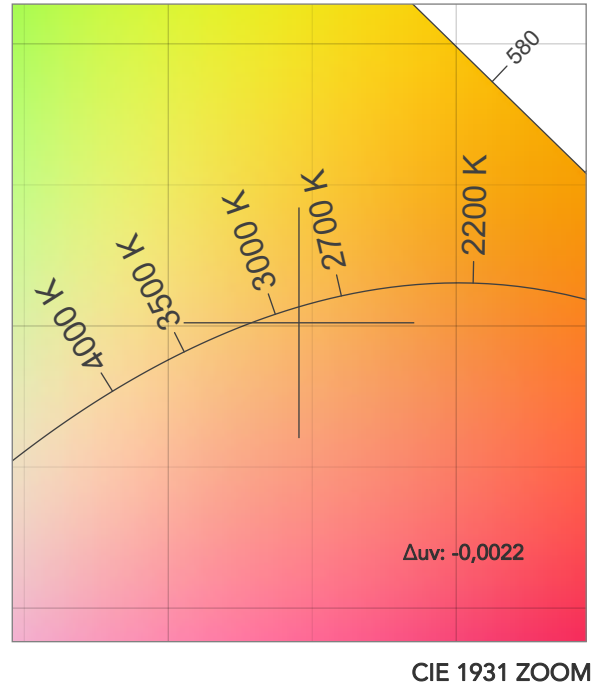
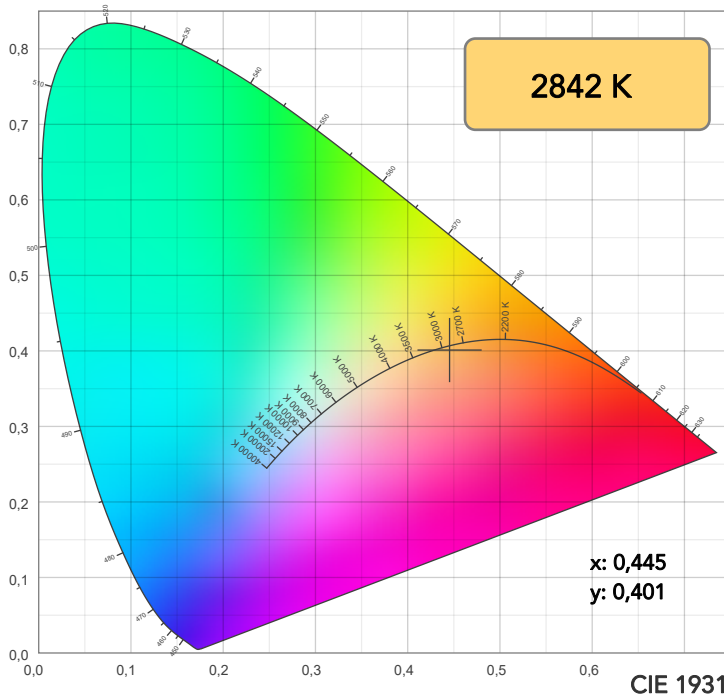
Field angle 10%: 19,3°

Cut off angle 2.5%: 21,2°

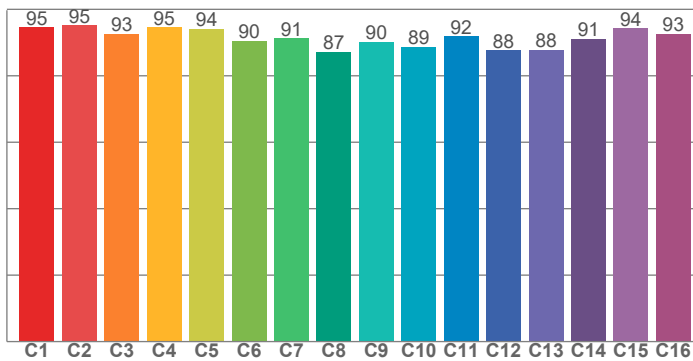
Spectra



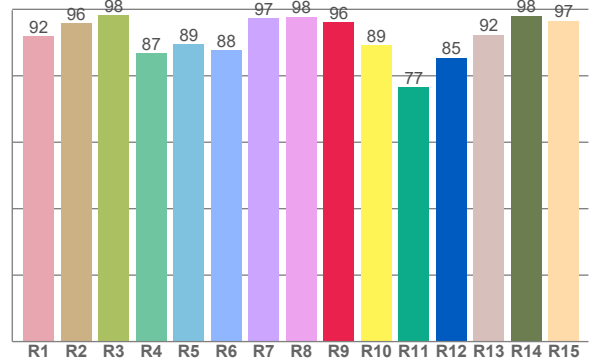
COLOR DETAILS



TM30: 92,0



CRI: 93,1 (R1-R8)



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

| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 91,9 | 95,8 | 98,2 | 86,7 | 89,4 | 87,6 | 97,4 | 97,8 | 96,1 | 89,3 | 76,6 | 85,5 | 92,4 | 98,0 | 96,6 |

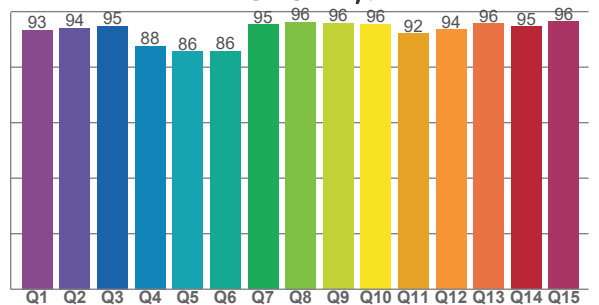
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,5 | 95,1 | 92,6 | 94,5 | 94,2 | 90,4 | 91,3 | 87,1 | 90,3 | 88,7 | 91,8 | 87,7 | 87,8 | 91,2 | 94,3 | 92,5 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93,5 | 94,1 | 94,9 | 87,7 | 85,6 | 85,7 | 95,3 | 96,2 | 95,8 | 95,6 | 92,1 | 93,6 | 95,7 | 94,7 | 96,4 |

CQS: 92,0



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 |
| 2842 K | 93,1 | 96,1 | 92,0 | 104,8 | 92,0 | 81 | 0,445 | 0,401 | -0,0022 |

TM30 DETAILS

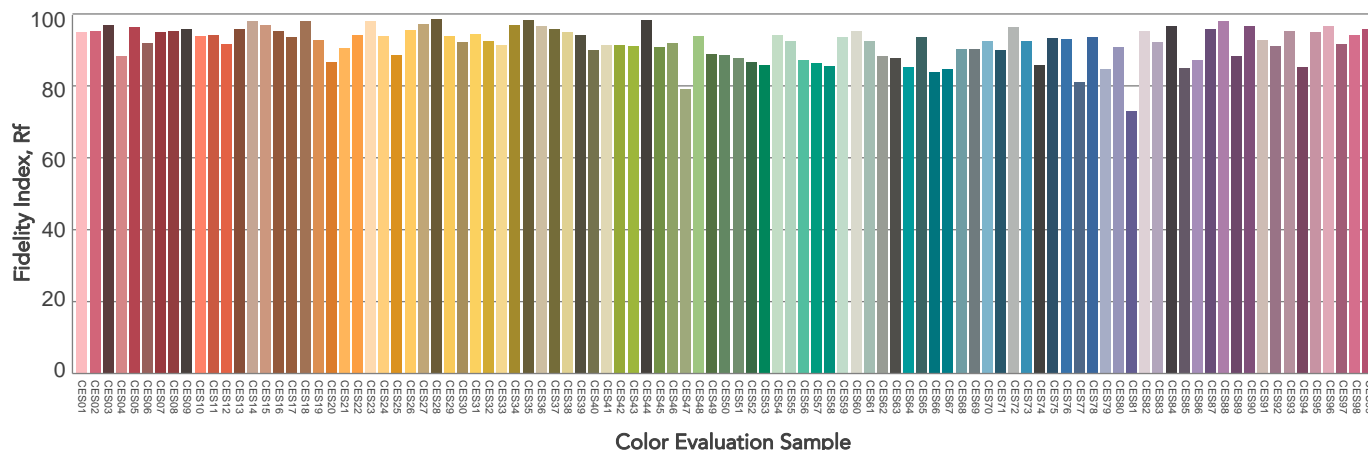
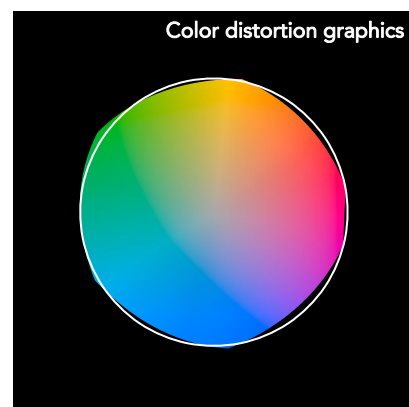
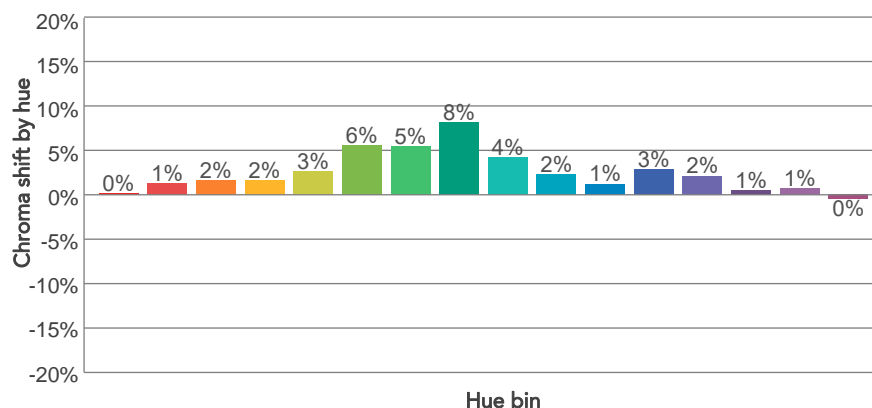
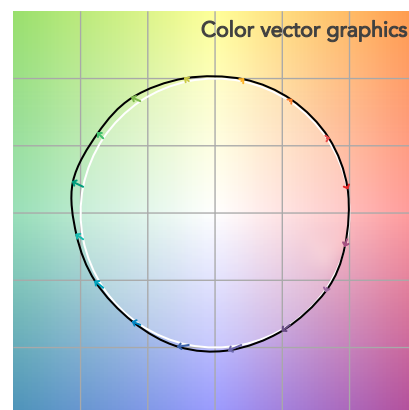
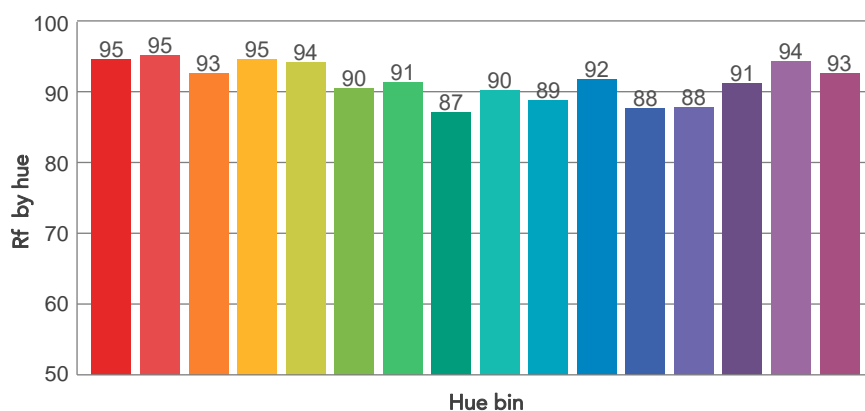
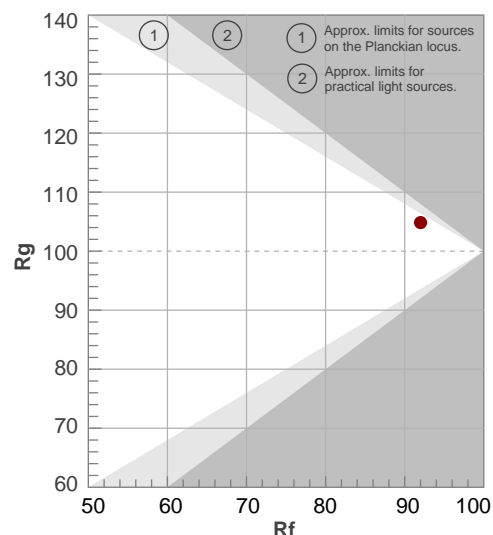
Rf 92,0

Fidelity index Rf

Rg 104,8

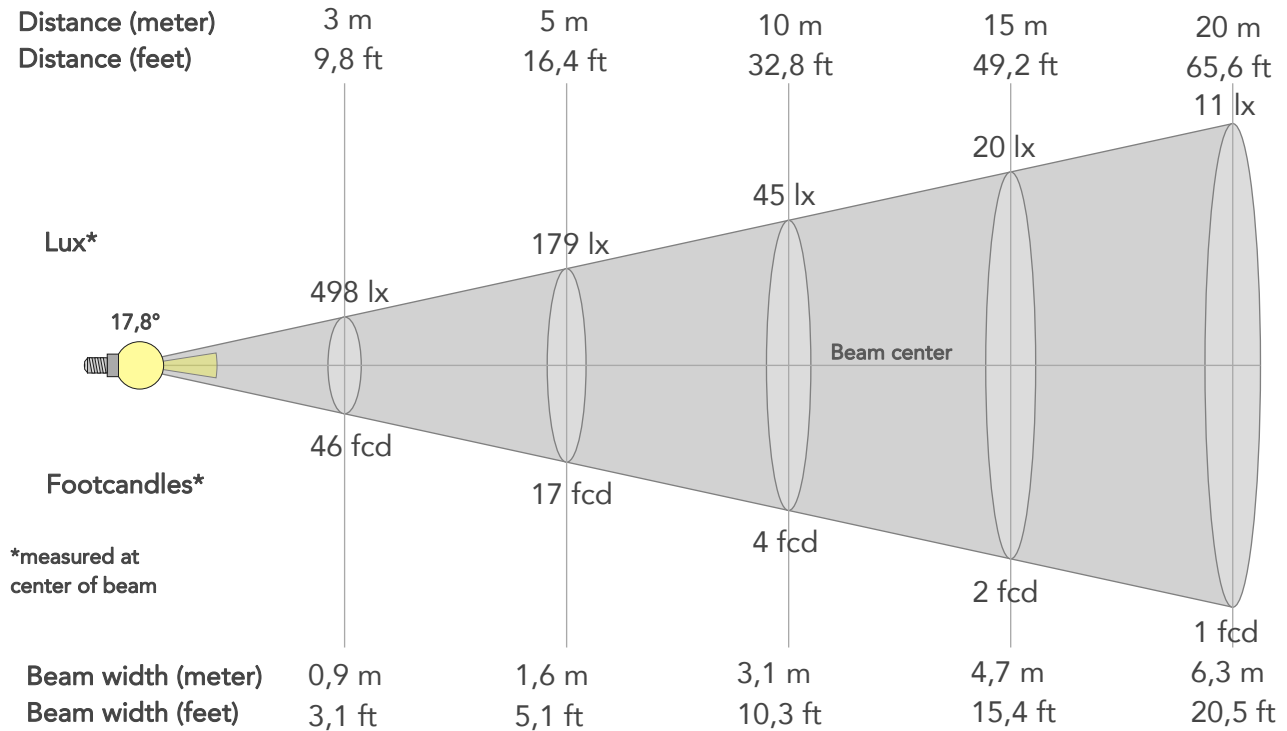
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|------|
| | | Chroma | Hue |
| 1 | 95 | 0% | -1% |
| 2 | 95 | 1% | -1% |
| 3 | 93 | 2% | 0% |
| 4 | 95 | 2% | -1% |
| 5 | 94 | 3% | 2% |
| 6 | 90 | 6% | 3% |
| 7 | 91 | 5% | -1% |
| 8 | 87 | 8% | -2% |
| 9 | 90 | 4% | -4% |
| 10 | 89 | 2% | -7% |
| 11 | 92 | 1% | -6% |
| 12 | 88 | 3% | -7% |
| 13 | 88 | 2% | -10% |
| 14 | 91 | 1% | -7% |
| 15 | 94 | 1% | -2% |
| 16 | 93 | 0% | -5% |



BEAM DETAILS

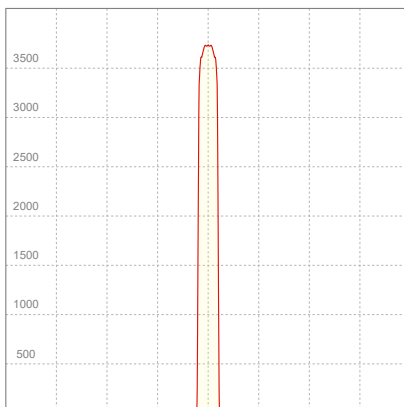
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 17,8° | 19,3° | 21,2° | 100,0% | 100,0% |



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 | 4478lx | 1119lx | 498lx | 280lx | 179lx | 80lx | 45lx | 20lx | 11lx | 7lx | 5lx | 3lx | 2lx |
| Footcand. | 416fcd | 104fcd | 46fcd | 26fcd | 17fcd | 7fcd | 4fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,9m | 1,3m | 1,6m | 2,3m | 3,1m | 4,7m | 6,3m | 7,8m | 9,4m | 12,5m | 15,6m |
| Beam wid. | 1ft | 2,1ft | 3,1ft | 4,1ft | 5,1ft | 7,7ft | 10,3ft | 15,4ft | 20,5ft | 25,6ft | 30,8ft | 41ft | 51,3ft |

LINEAR DISTRIBUTION DIAGRAM

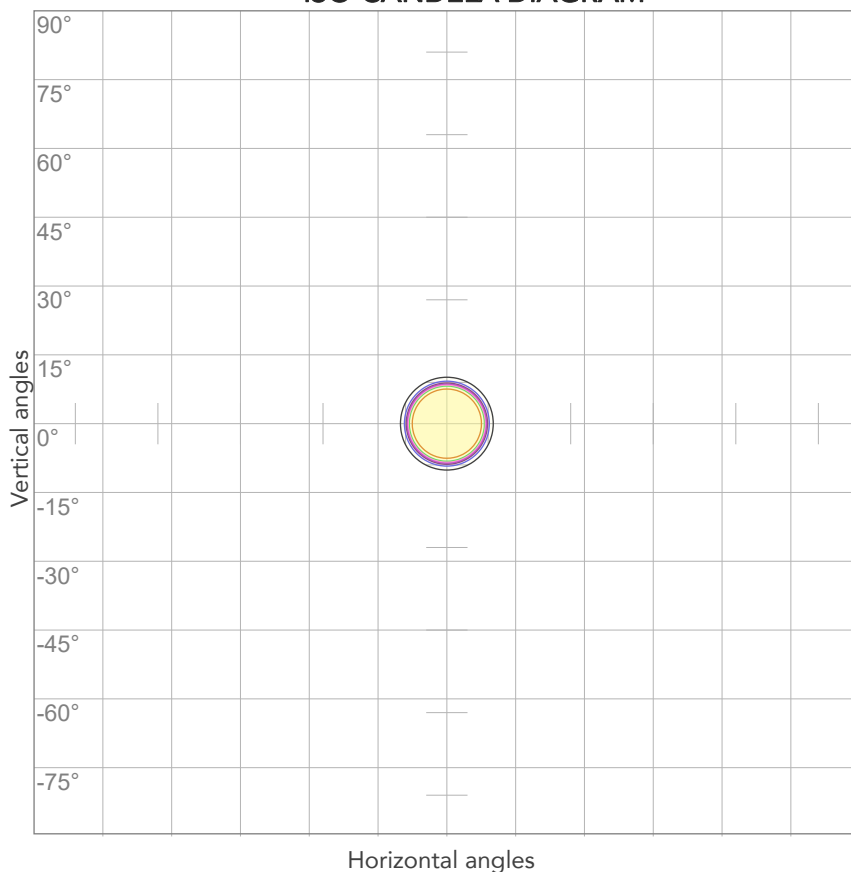


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,111A | 22,5W | 0,91 | 15lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



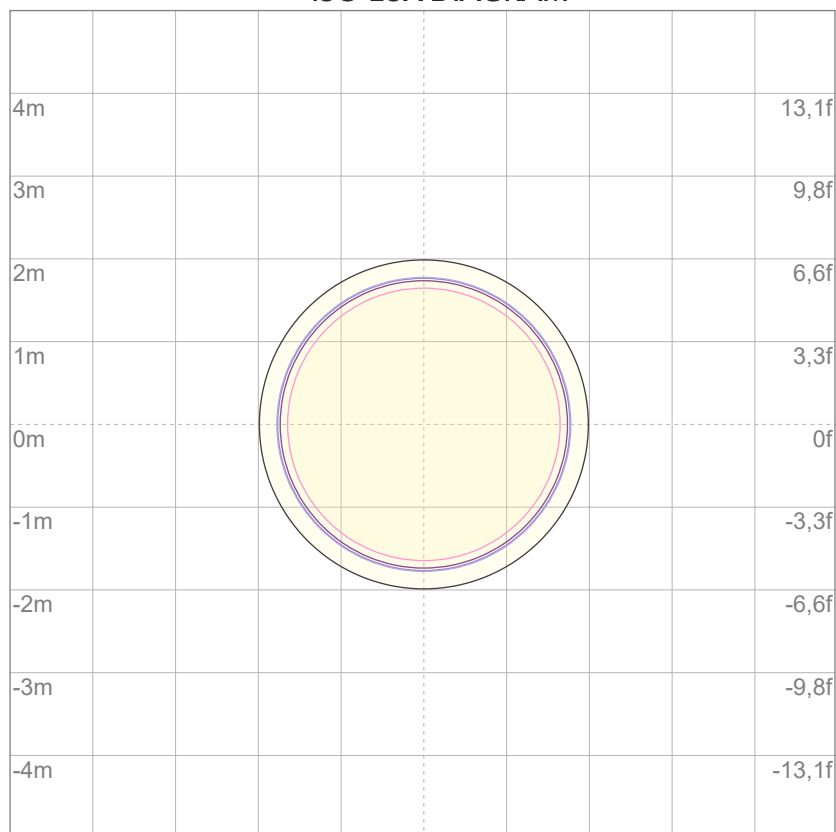
| | |
|-----|---------|
| 10% | 448 cd |
| 20% | 896 cd |
| 30% | 1343 cd |
| 40% | 1791 cd |
| 50% | 2239 cd |
| 60% | 2687 cd |
| 70% | 3134 cd |
| 80% | 3582 cd |

Conditions:

Number of c-planes: 2

Candela at center: 4478 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,34 lx |
| 5% | 2,24 lx |
| 10% | 4,48 lx |
| 30% | 13,4 lx |
| 50% | 22,4 lx |

Conditions:

Number of c-planes: 2

Lux at center: 44,8 lx

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



Total lumen output:

298 lm

Peak candela output:

942 cd

Light quality:

CRI: 93,5

Color temperature:

3219 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Max Zoom

Target:

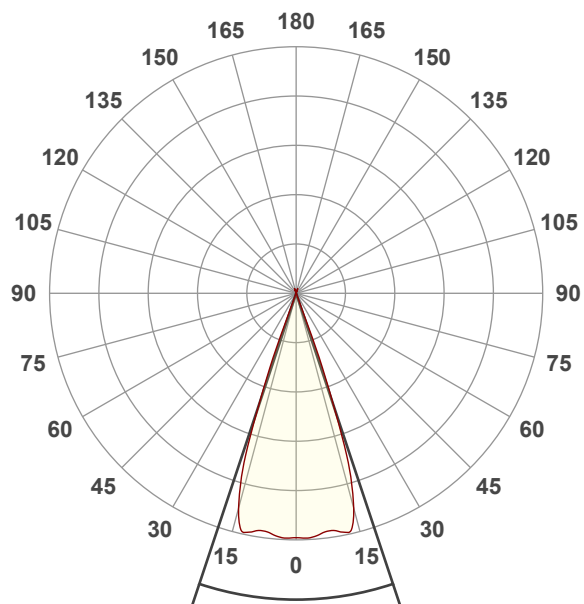
3200K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:31:21

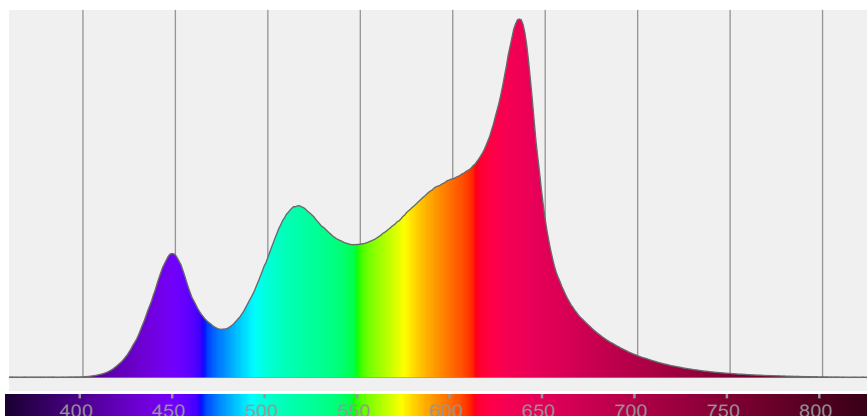


Beam angle 50%: 36,9°

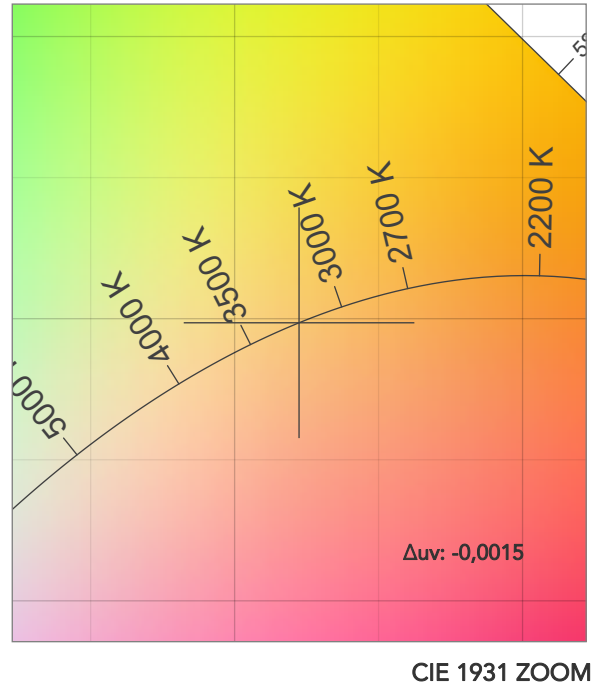
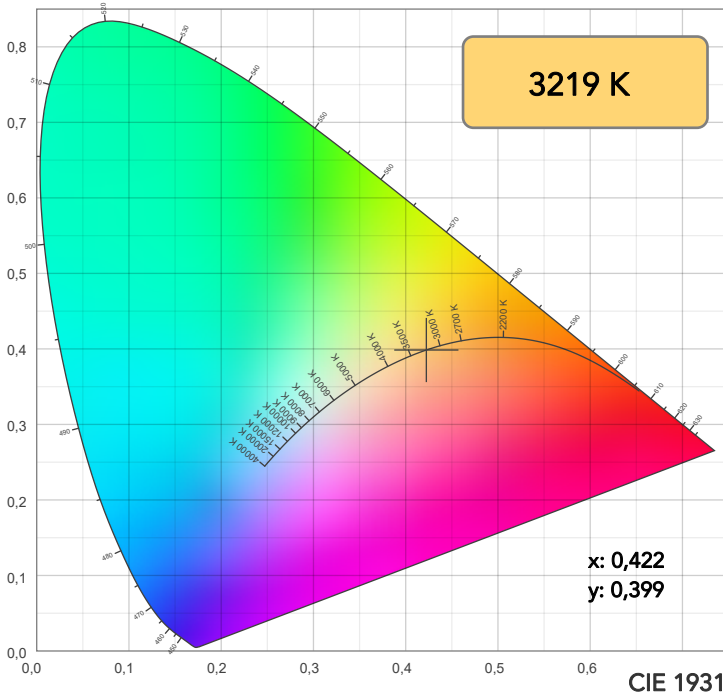
Field angle 10%: 41,8°

Cut off angle 2.5%: 42,8°

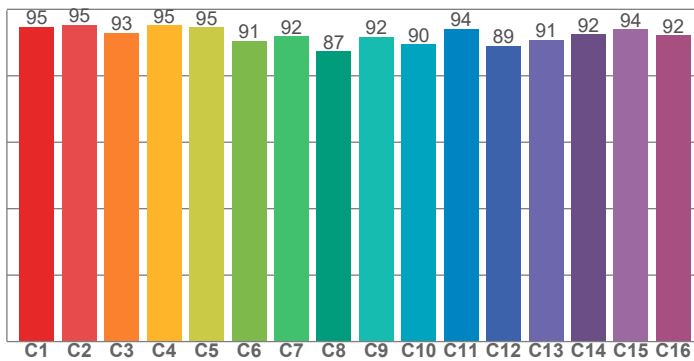
Spectra



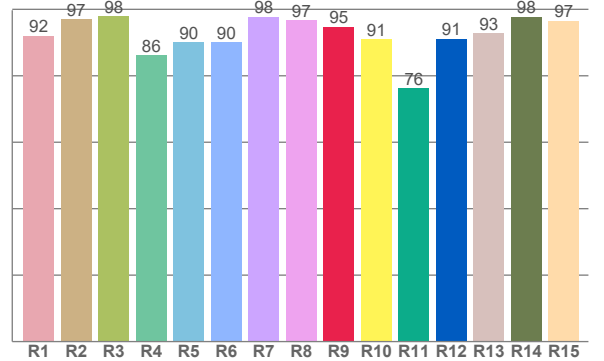
COLOR DETAILS



TM30: 92,8



CRI: 93,5 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92,1 | 96,9 | 97,9 | 86,1 | 90,1 | 90,0 | 97,8 | 96,7 | 94,7 | 91,1 | 76,2 | 91,2 | 92,9 | 97,8 | 96,6 |

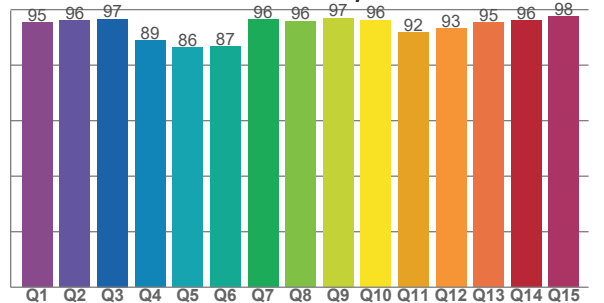
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,8 | 95,3 | 92,9 | 95,1 | 94,6 | 90,6 | 91,9 | 87,3 | 91,6 | 89,5 | 94,1 | 89,1 | 90,8 | 92,4 | 94,0 | 92,2 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 95,3 | 96,0 | 96,7 | 88,9 | 86,3 | 86,7 | 96,4 | 95,8 | 97,0 | 96,2 | 91,7 | 93,1 | 95,4 | 96,0 | 97,5 |

CQS: 92,7



COLOR PARAMETERS

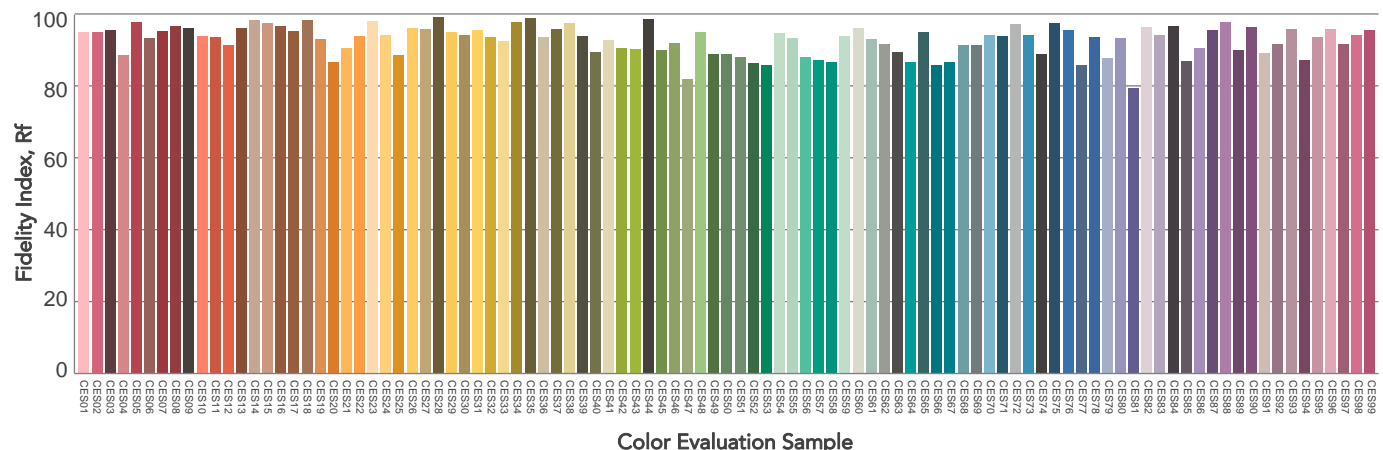
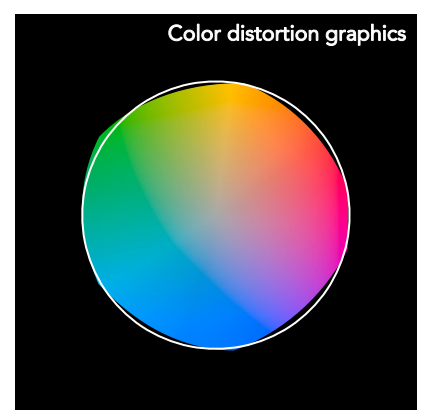
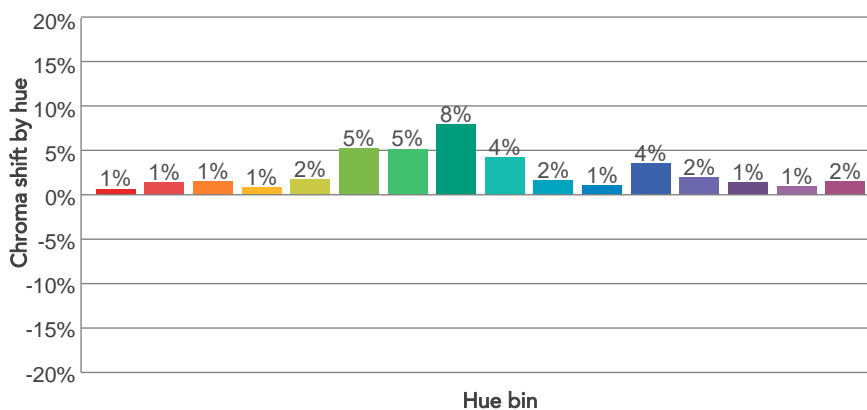
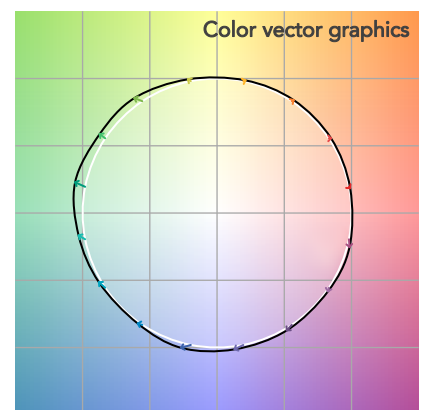
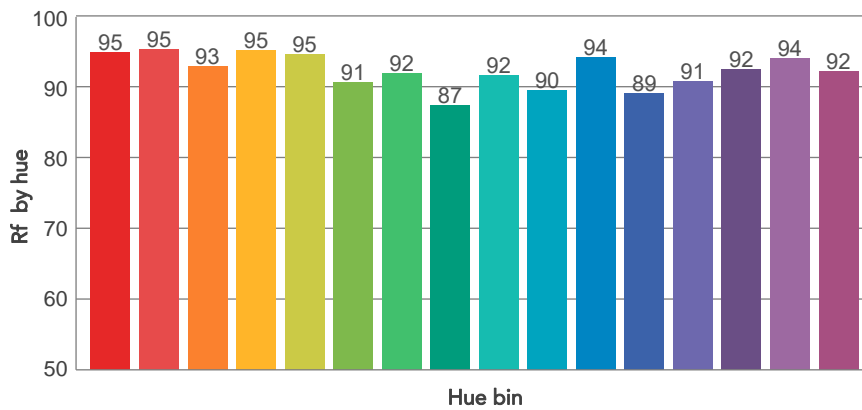
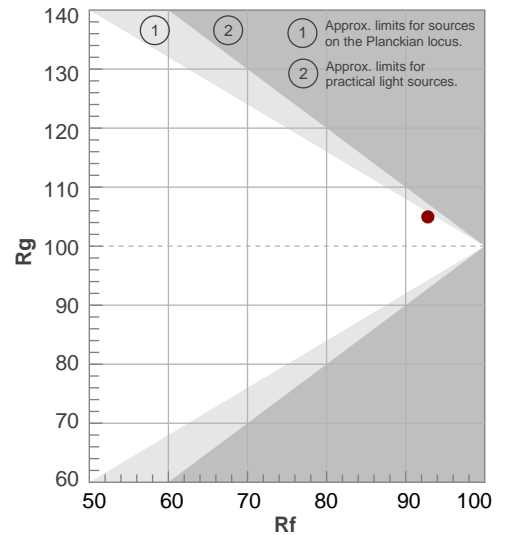
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 3219 K | 93,5 | 94,7 | 92,8 | 105,0 | 92,7 | 83 | 0,422 | 0,399 | -0,0015 |

TM30 DETAILS

Rf 92,8
Fidelity index Rf

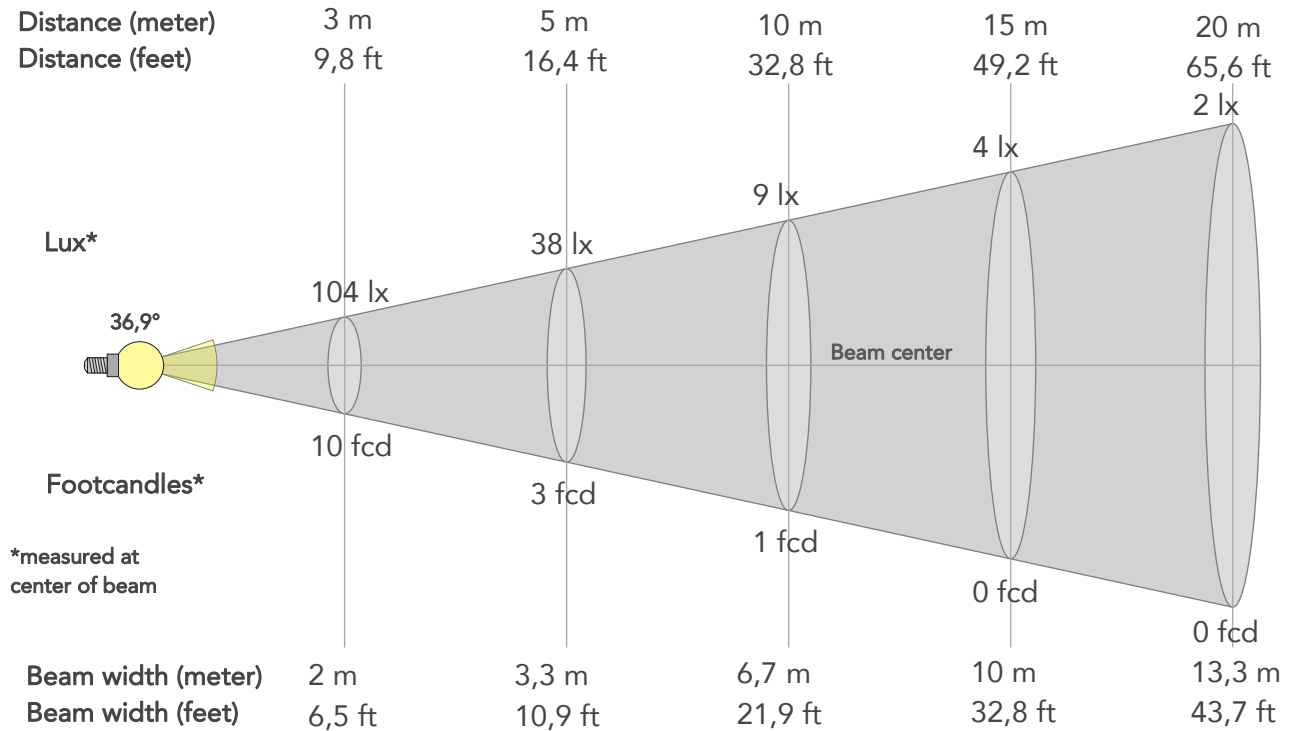
Rg 105,0
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 95 | 1% | -1% |
| 2 | 95 | 1% | -1% |
| 3 | 93 | 1% | -1% |
| 4 | 95 | 1% | -1% |
| 5 | 95 | 2% | 2% |
| 6 | 91 | 5% | 4% |
| 7 | 92 | 5% | 0% |
| 8 | 87 | 8% | -2% |
| 9 | 92 | 4% | -4% |
| 10 | 90 | 2% | -6% |
| 11 | 94 | 1% | -3% |
| 12 | 89 | 4% | -7% |
| 13 | 91 | 2% | -7% |
| 14 | 92 | 1% | -5% |
| 15 | 94 | 1% | -3% |
| 16 | 92 | 2% | -6% |



BEAM DETAILS

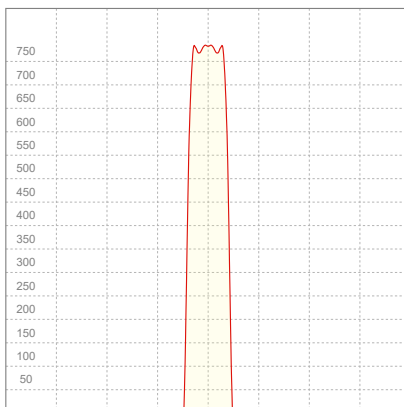
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 36,9° | 41,8° | 42,8° | 100,0% | 100,0% |



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 | 940lx | 235lx | 104lx | 59lx | 38lx | 17lx | 9lx | 4lx | 2lx | 2lx | 1lx | 1lx | 0lx |
| Footcand. | 87fcd | 22fcd | 10fcd | 5fcd | 3fcd | 2fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,7m | 1,3m | 2m | 2,7m | 3,3m | 5m | 6,7m | 10m | 13,3m | 16,7m | 20m | 26,7m | 33,3m |
| Beam wid. | 2,2ft | 4,4ft | 6,5ft | 8,7ft | 10,9ft | 16,4ft | 21,9ft | 32,8ft | 43,7ft | 54,6ft | 65,6ft | 87,4ft | 109,3ft |

LINEAR DISTRIBUTION DIAGRAM

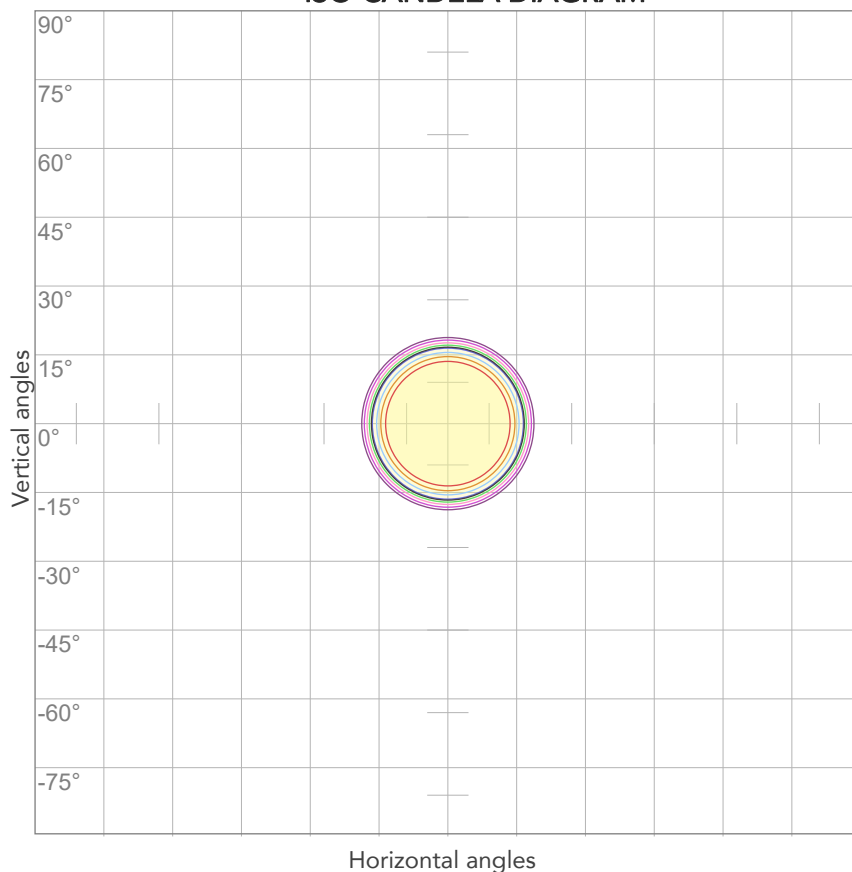


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 223V | 0,112A | 22,8W | 0,91 | 13lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



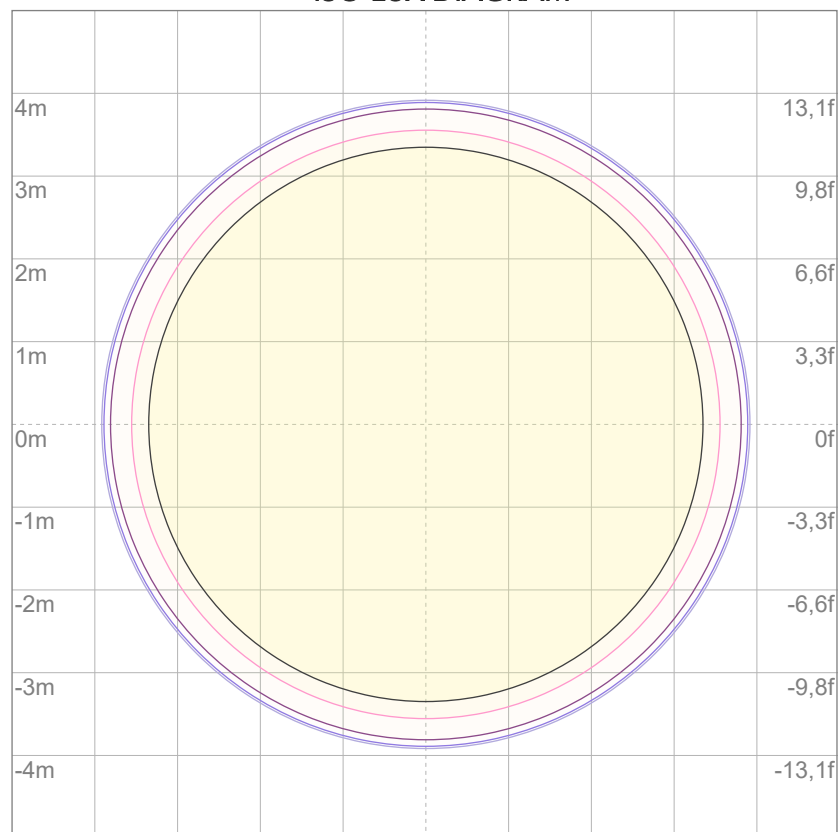
| | |
|-----|--------|
| 10% | 94 cd |
| 20% | 188 cd |
| 30% | 282 cd |
| 40% | 376 cd |
| 50% | 470 cd |
| 60% | 564 cd |
| 70% | 658 cd |
| 80% | 752 cd |

Conditions:

Number of c-planes: 2

Candela at center: 940 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,282 lx |
| 5% | 0,470 lx |
| 10% | 0,940 lx |
| 30% | 2,82 lx |
| 50% | 4,70 lx |

Conditions:

Number of c-planes: 2

Lux at center: 9,40 lx

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



Total lumen output:

331 lm

Peak candela output:

4488 cd

Light quality:

CRI: 93,7

Color temperature:

3218 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Min Zoom

Target:

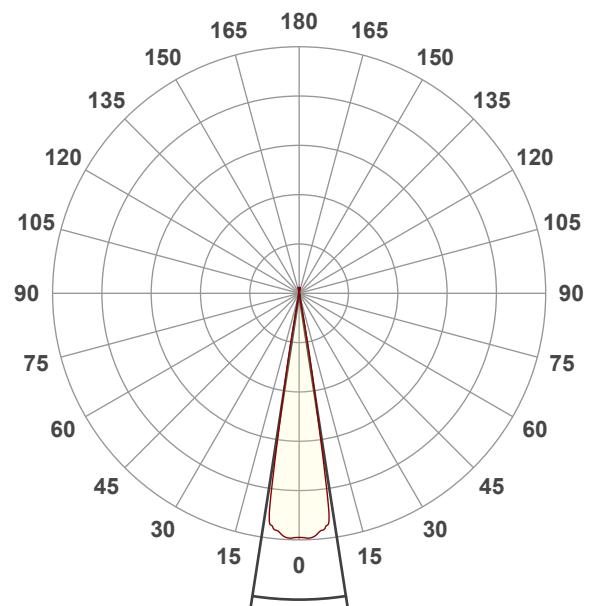
3200K

Operator:

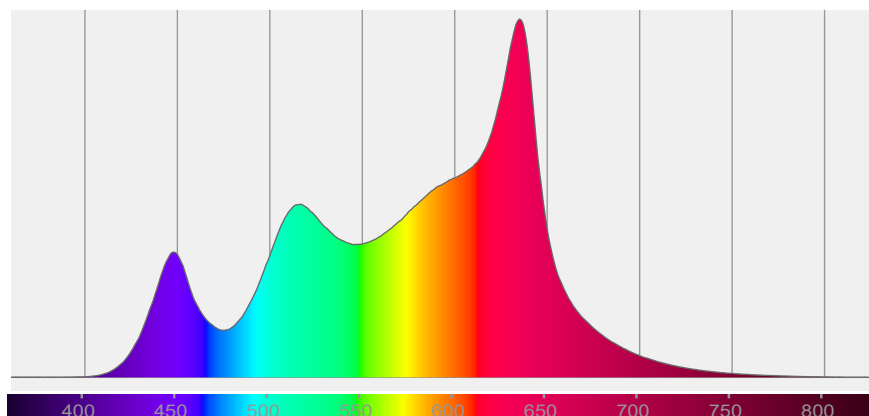
Paolo Carvone

Date and time:

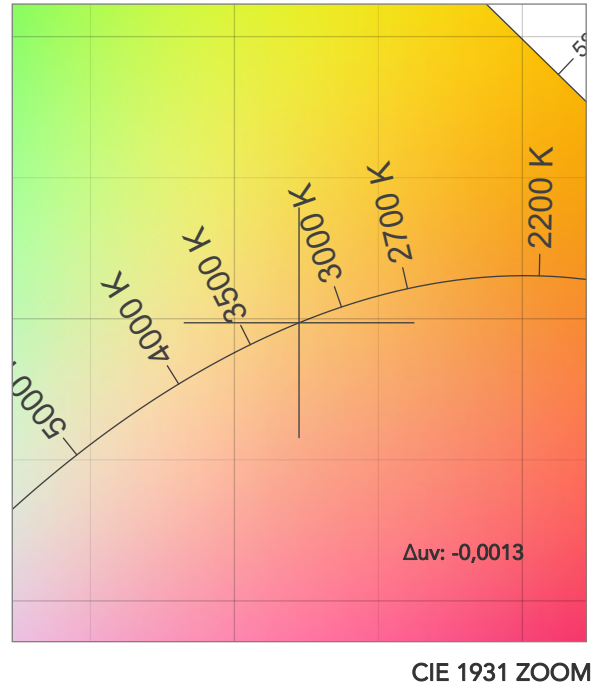
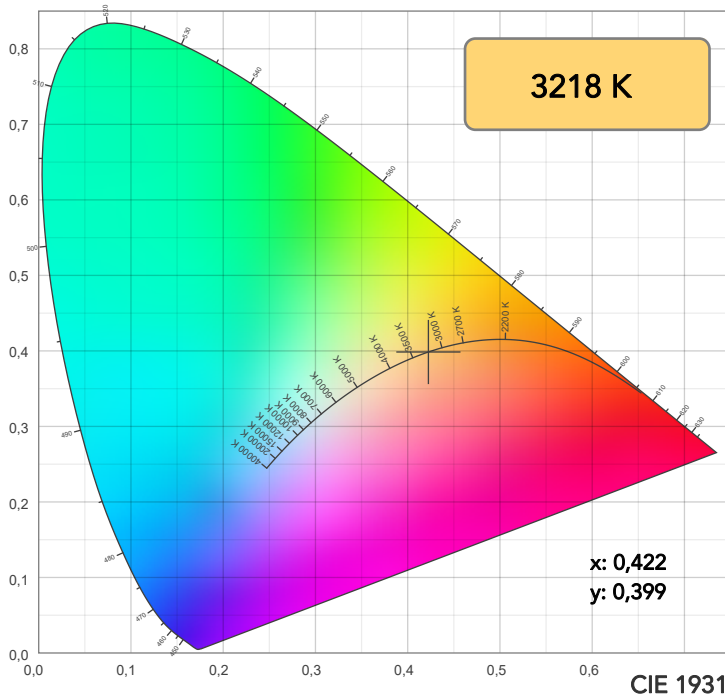
14/01/2021 11:19:56



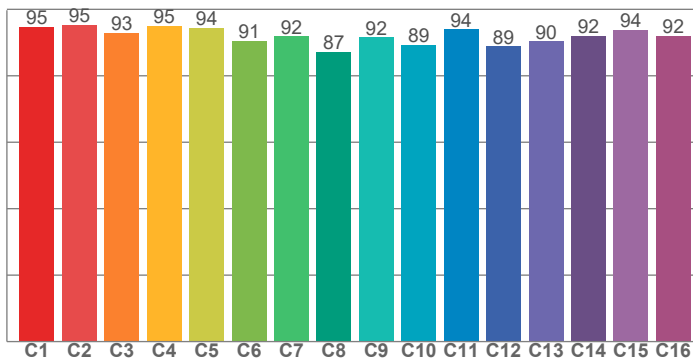
Spectra



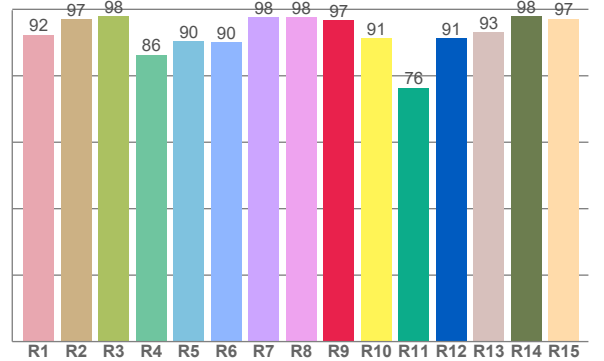
COLOR DETAILS



TM30: 92,7



CRI: 93,7 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92,4 | 97,1 | 98,0 | 86,3 | 90,4 | 90,1 | 97,6 | 97,6 | 96,8 | 91,3 | 76,4 | 91,4 | 93,2 | 97,9 | 97,2 |

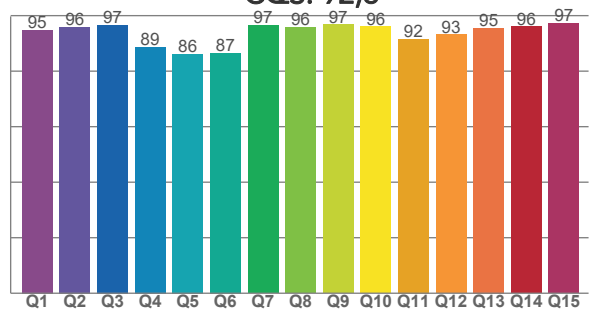
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,7 | 95,3 | 92,9 | 95,0 | 94,4 | 90,6 | 91,8 | 87,2 | 91,6 | 89,3 | 94,0 | 88,8 | 90,4 | 92,0 | 93,8 | 92,1 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,7 | 95,9 | 96,6 | 88,6 | 86,1 | 86,5 | 96,5 | 95,8 | 96,8 | 96,1 | 91,7 | 93,1 | 95,5 | 96,1 | 97,2 |

CQS: 92,6



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 |
| 3218 K | 93,7 | 96,8 | 92,7 | 104,8 | 92,6 | 82 | 0,422 | 0,399 | -0,0013 |

TM30 DETAILS

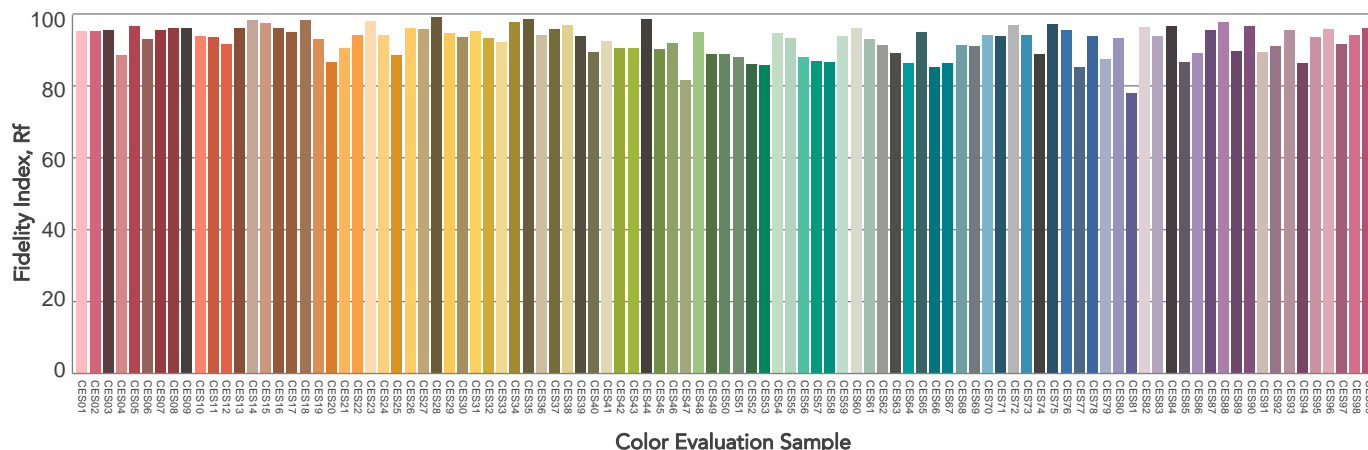
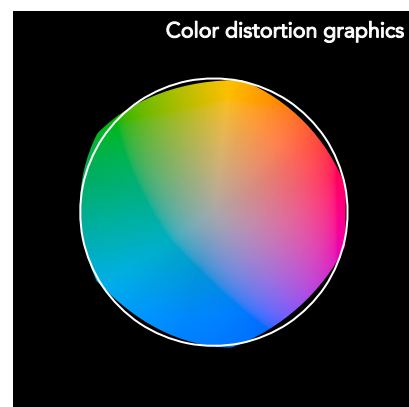
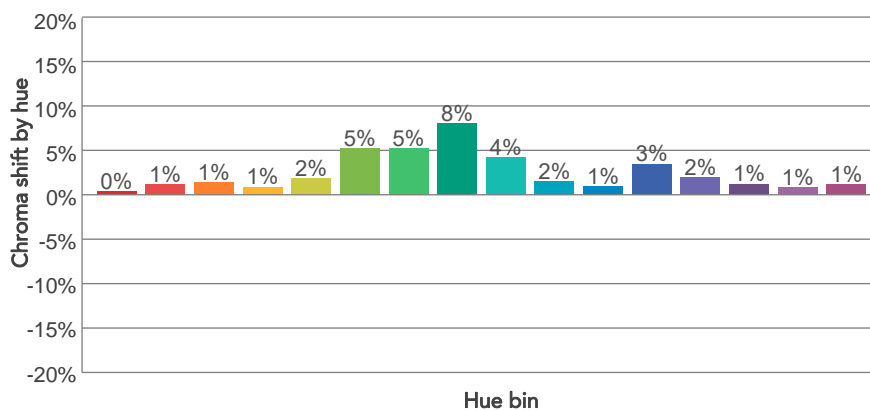
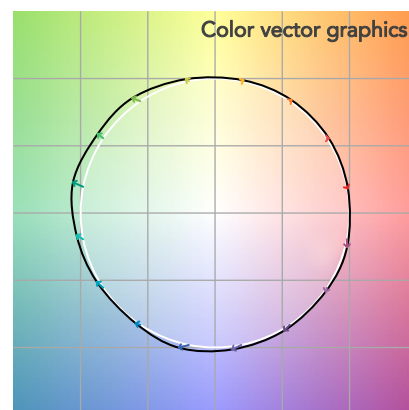
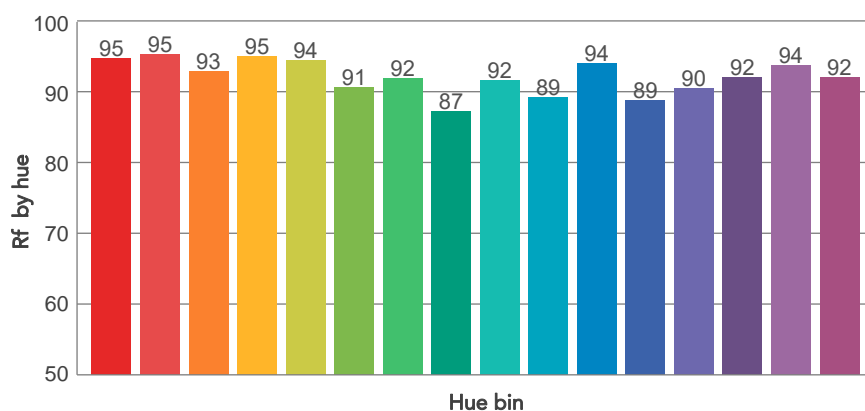
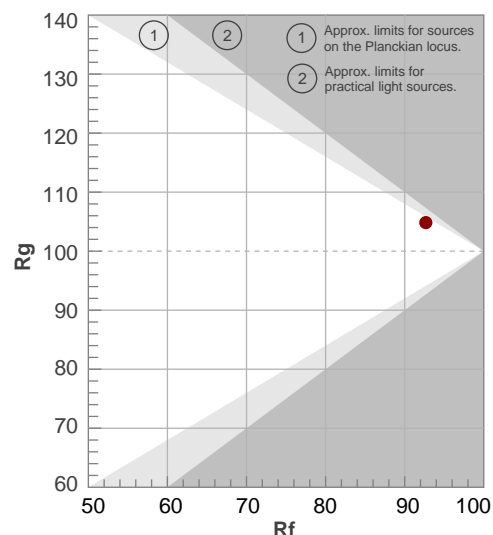
Rf 92,7

Fidelity index Rf

Rg 104,8

Gammut index

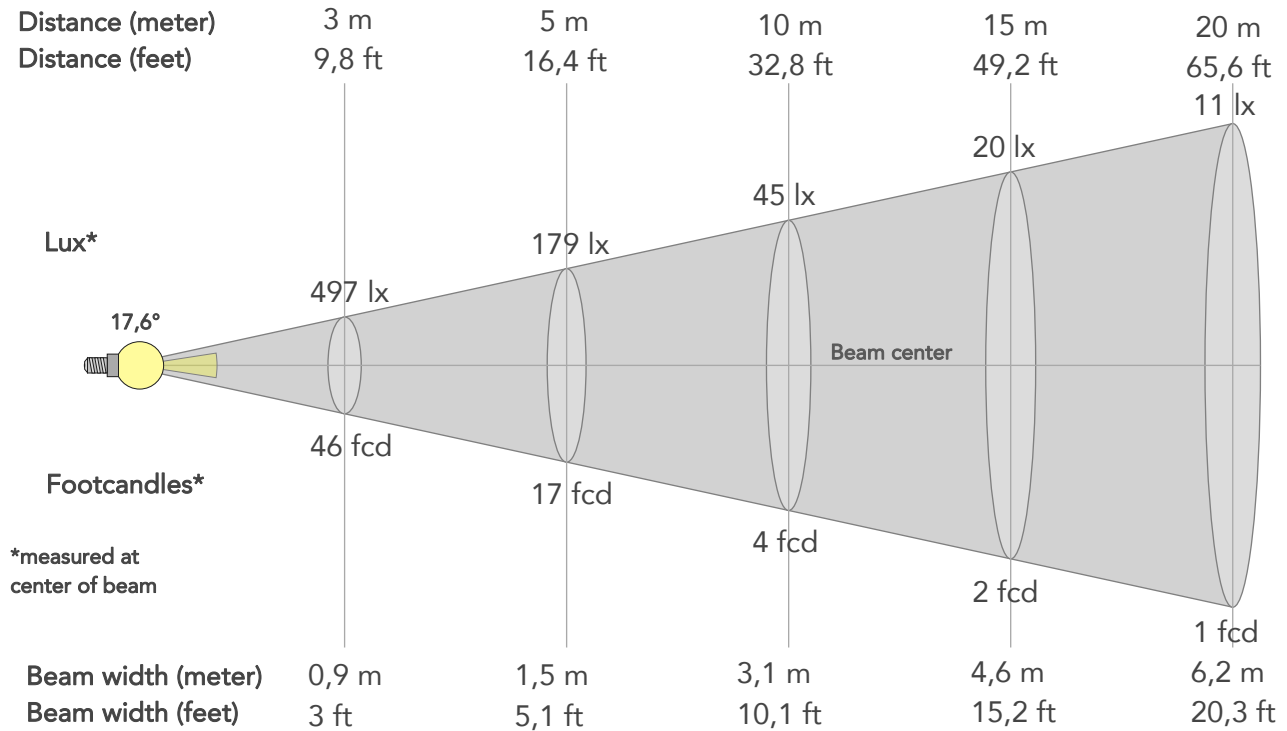
| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 95 | 0% | -1% |
| 2 | 95 | 1% | -1% |
| 3 | 93 | 1% | -1% |
| 4 | 95 | 1% | -1% |
| 5 | 94 | 2% | 2% |
| 6 | 91 | 5% | 4% |
| 7 | 92 | 5% | 0% |
| 8 | 87 | 8% | -2% |
| 9 | 92 | 4% | -4% |
| 10 | 89 | 2% | -6% |
| 11 | 94 | 1% | -4% |
| 12 | 89 | 3% | -7% |
| 13 | 90 | 2% | -7% |
| 14 | 92 | 1% | -6% |
| 15 | 94 | 1% | -3% |
| 16 | 92 | 1% | -6% |



BEAM DETAILS



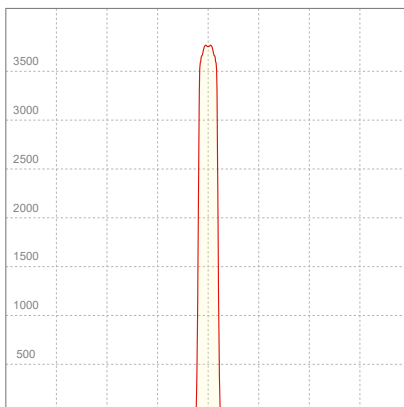
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 17,6° | 20,4° | 21,1° | 100,0% | 100,0% |



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 | 4474lx | 1118lx | 497lx | 280lx | 179lx | 80lx | 45lx | 20lx | 11lx | 7lx | 5lx | 3lx | 2lx |
| Footcand. | 416fcd | 104fcd | 46fcd | 26fcd | 17fcd | 7fcd | 4fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,9m | 1,2m | 1,5m | 2,3m | 3,1m | 4,6m | 6,2m | 7,7m | 9,3m | 12,4m | 15,4m |
| Beam wid. | 1ft | 2ft | 3ft | 4ft | 5,1ft | 7,6ft | 10,1ft | 15,2ft | 20,3ft | 25,3ft | 30,4ft | 40,5ft | 50,7ft |

LINEAR DISTRIBUTION DIAGRAM

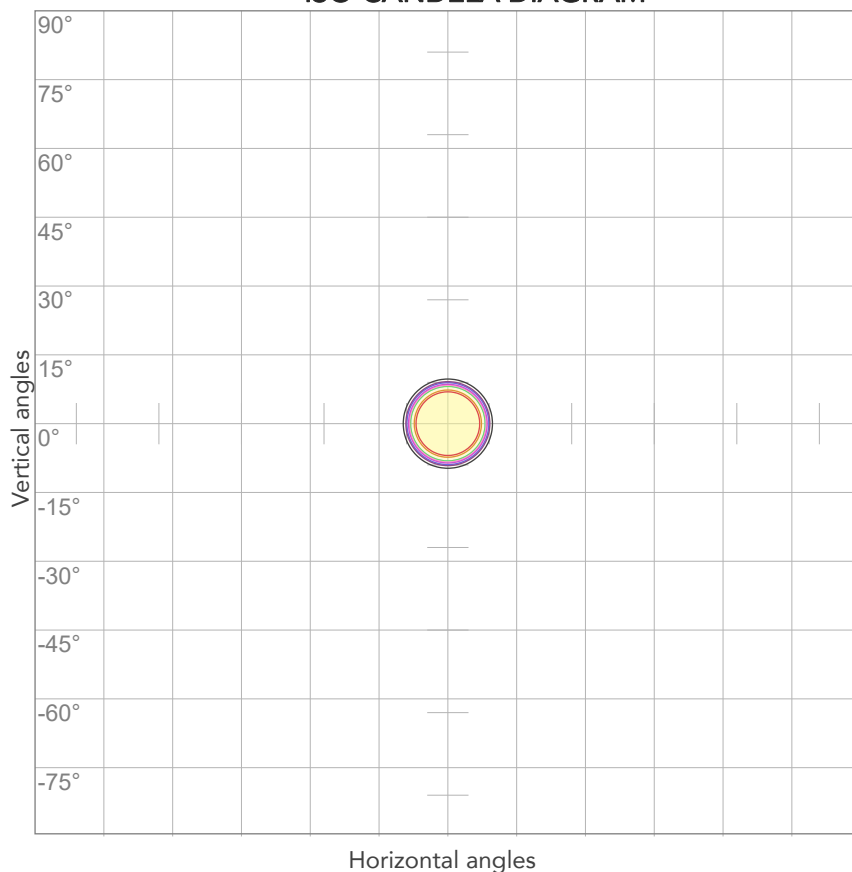


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 223V | 0,112A | 22,9W | 0,91 | 14lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



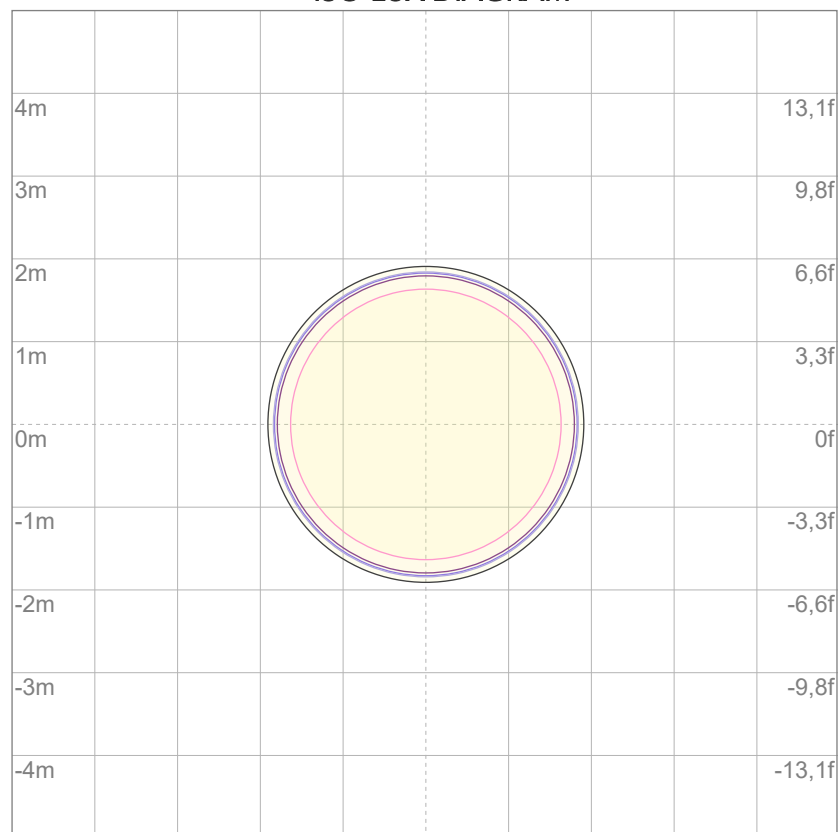
| | |
|-----|---------|
| 10% | 447 cd |
| 20% | 895 cd |
| 30% | 1342 cd |
| 40% | 1789 cd |
| 50% | 2237 cd |
| 60% | 2684 cd |
| 70% | 3132 cd |
| 80% | 3579 cd |

Conditions:

Number of c-planes: 2

Candela at center: 4474 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,34 lx |
| 5% | 2,24 lx |
| 10% | 4,47 lx |
| 30% | 13,4 lx |
| 50% | 22,4 lx |

Conditions:

Number of c-planes: 2

Lux at center: 44,7 lx

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



Total lumen output:

314 lm

Peak candela output:

991 cd

Light quality:

CRI: 93,4

Color temperature:

4084 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Max Zoom

Target:

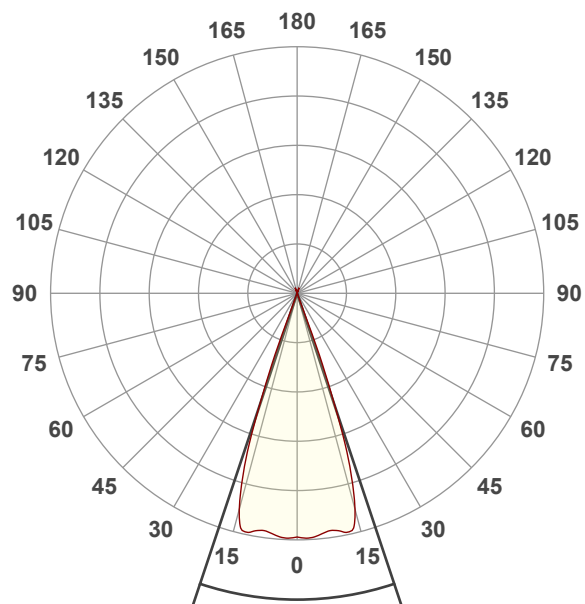
4000K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:33:40

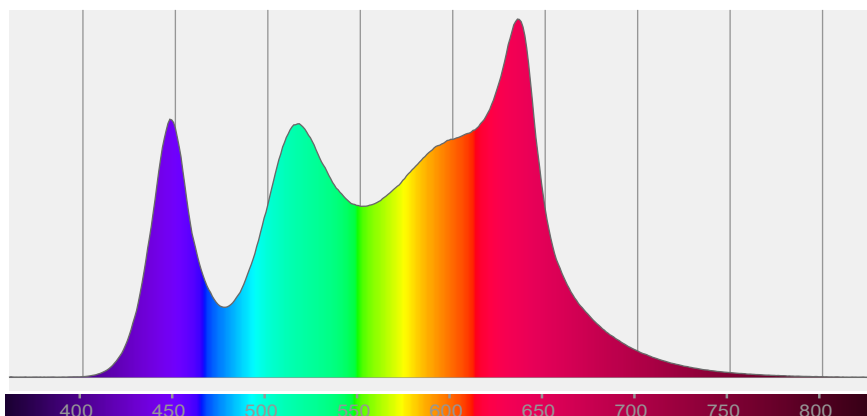


Beam angle 50%: 37°

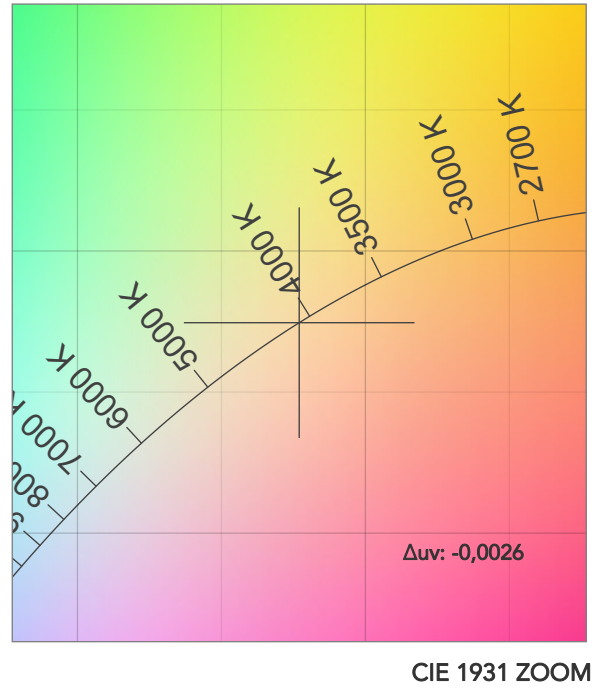
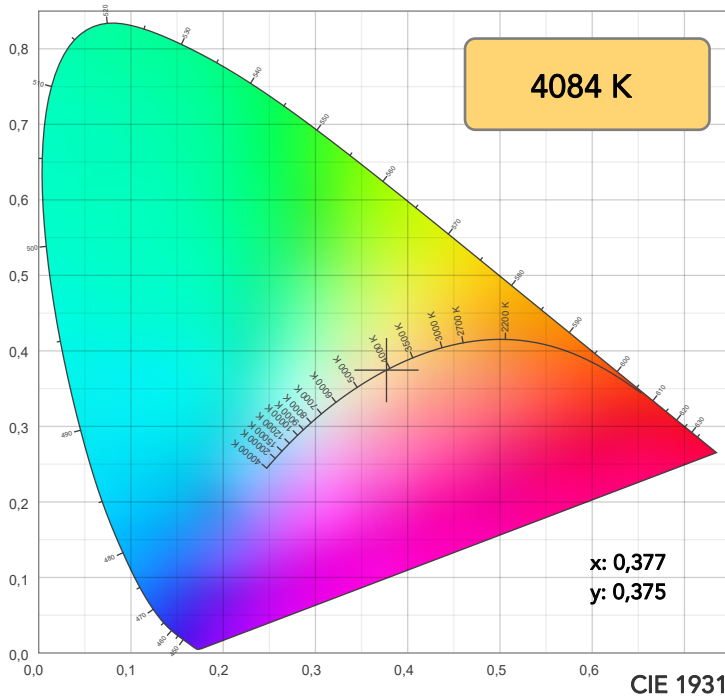
Field angle 10%: 41,8°

Cut off angle 2.5%: 42,8°

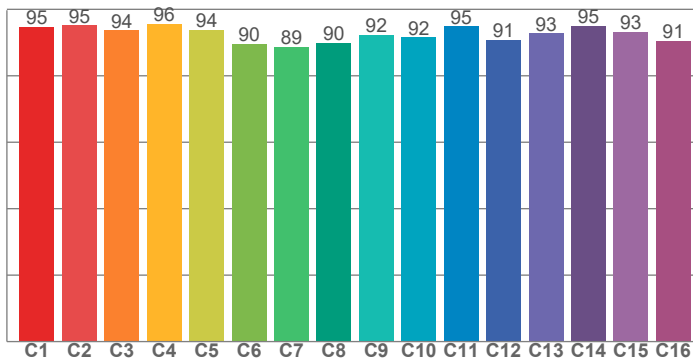
Spectra



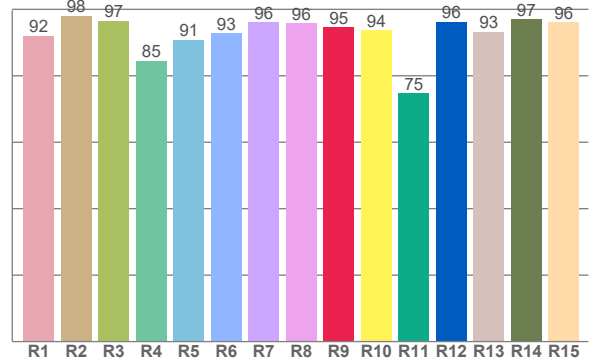
COLOR DETAILS



TM30: 93,0



CRI: 93,4 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92,1 | 98,0 | 96,6 | 84,6 | 90,9 | 92,8 | 96,2 | 95,8 | 94,7 | 93,7 | 74,8 | 96,2 | 93,3 | 97,1 | 96,2 |

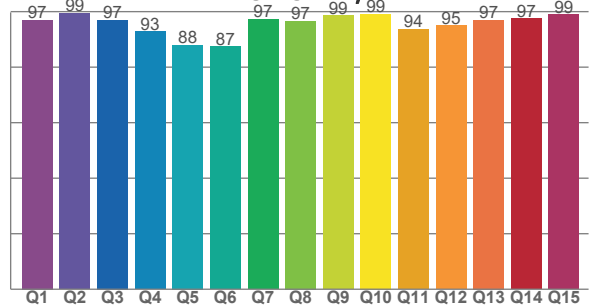
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,7 | 95,2 | 93,7 | 95,5 | 93,9 | 89,6 | 88,7 | 89,9 | 92,2 | 91,5 | 94,9 | 90,7 | 92,8 | 95,0 | 93,2 | 90,6 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 97,0 | 99,4 | 97,1 | 92,8 | 87,9 | 87,5 | 97,2 | 96,7 | 98,6 | 99,2 | 93,6 | 95,0 | 97,1 | 97,4 | 99,0 |

CQS: 94,4



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 |
| 4084 K | 93,4 | 94,7 | 93,0 | 106,0 | 94,4 | 82 | 0,377 | 0,375 | -0,0026 |

TM30 DETAILS

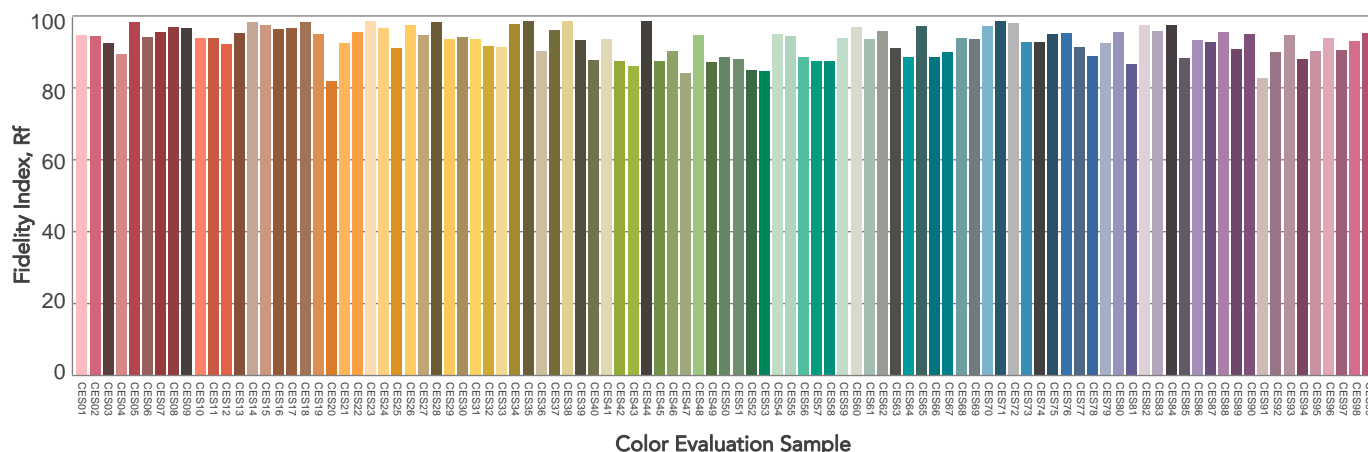
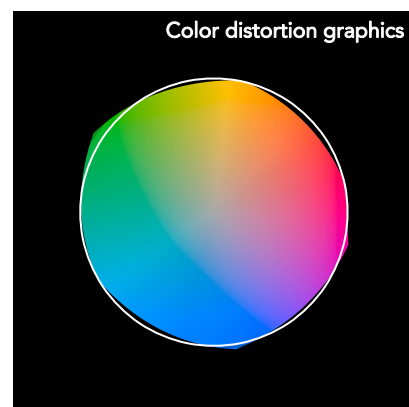
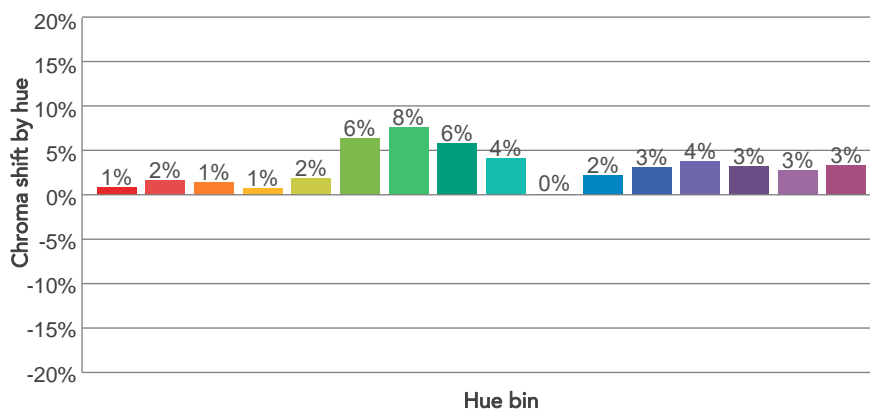
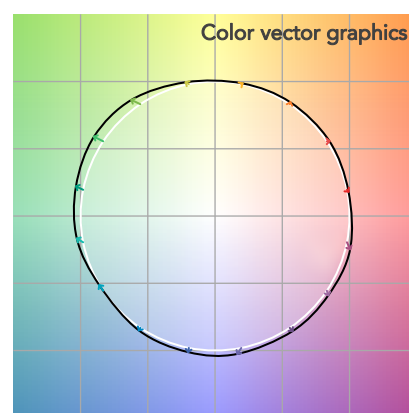
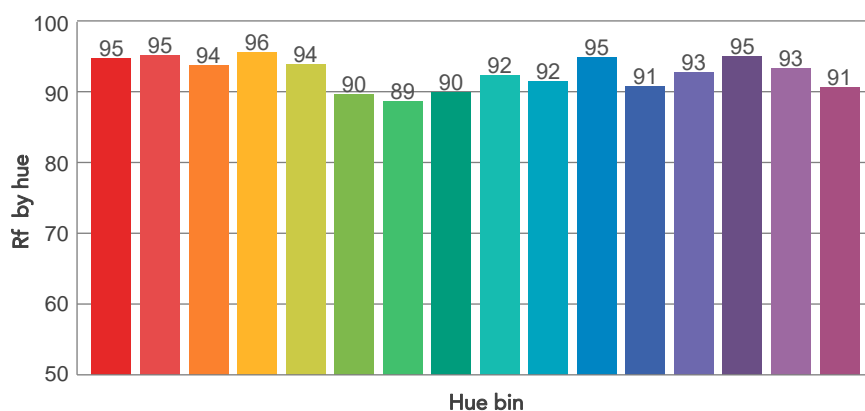
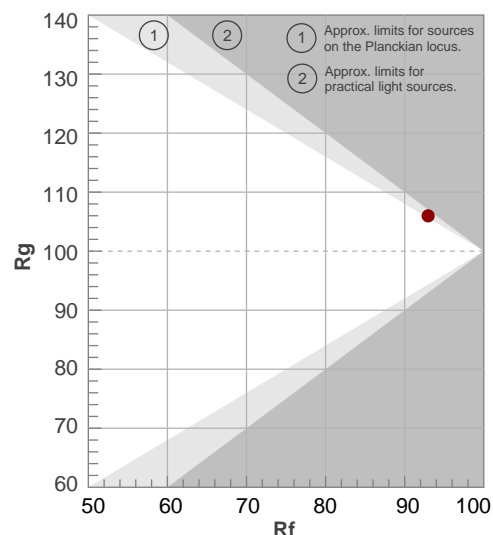
Rf 93,0

Fidelity index Rf

Rg 106,0

Gammut index

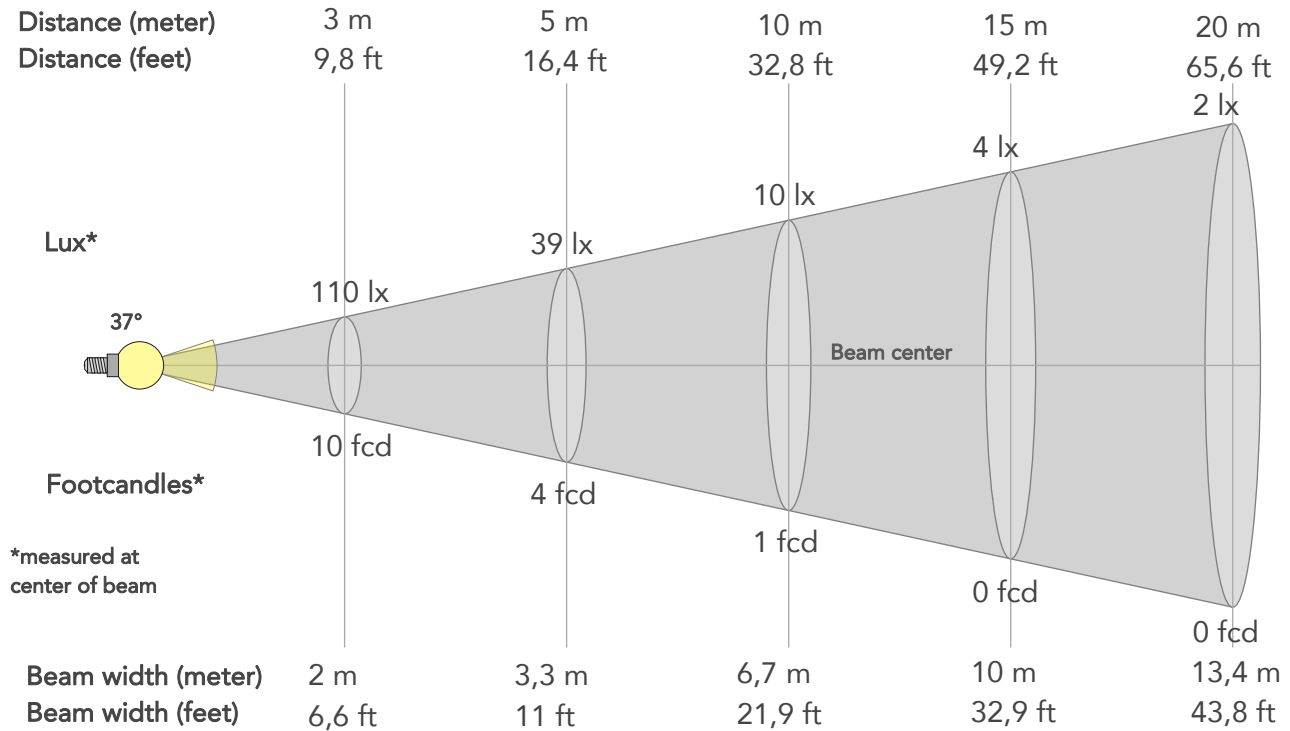
| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 95 | 1% | -2% |
| 2 | 95 | 2% | -1% |
| 3 | 94 | 1% | 0% |
| 4 | 96 | 1% | -1% |
| 5 | 94 | 2% | 2% |
| 6 | 90 | 6% | 4% |
| 7 | 89 | 8% | 1% |
| 8 | 90 | 6% | -1% |
| 9 | 92 | 4% | -4% |
| 10 | 92 | 0% | -5% |
| 11 | 95 | 2% | 0% |
| 12 | 91 | 3% | 0% |
| 13 | 93 | 4% | -4% |
| 14 | 95 | 3% | 0% |
| 15 | 93 | 3% | -2% |
| 16 | 91 | 3% | -5% |



BEAM DETAILS



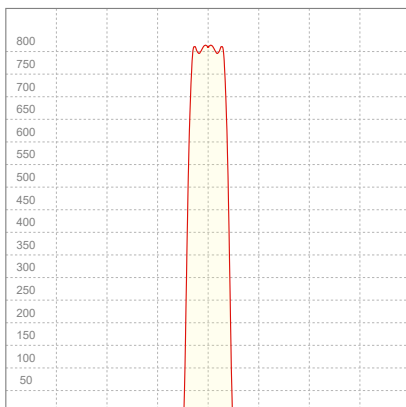
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 37° | 41,8° | 42,8° | 100,0% | 100,0% |



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 | 986lx | 246lx | 110lx | 62lx | 39lx | 18lx | 10lx | 4lx | 2lx | 2lx | 1lx | 1lx | 0lx |
| Footcand. | 92fcd | 23fcd | 10fcd | 6fcd | 4fcd | 2fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,7m | 1,3m | 2m | 2,7m | 3,3m | 5m | 6,7m | 10m | 13,4m | 16,7m | 20,1m | 26,7m | 33,4m |
| Beam wid. | 2,2ft | 4,4ft | 6,6ft | 8,8ft | 11ft | 16,4ft | 21,9ft | 32,9ft | 43,8ft | 54,8ft | 65,8ft | 87,7ft | 109,6ft |

LINEAR DISTRIBUTION DIAGRAM

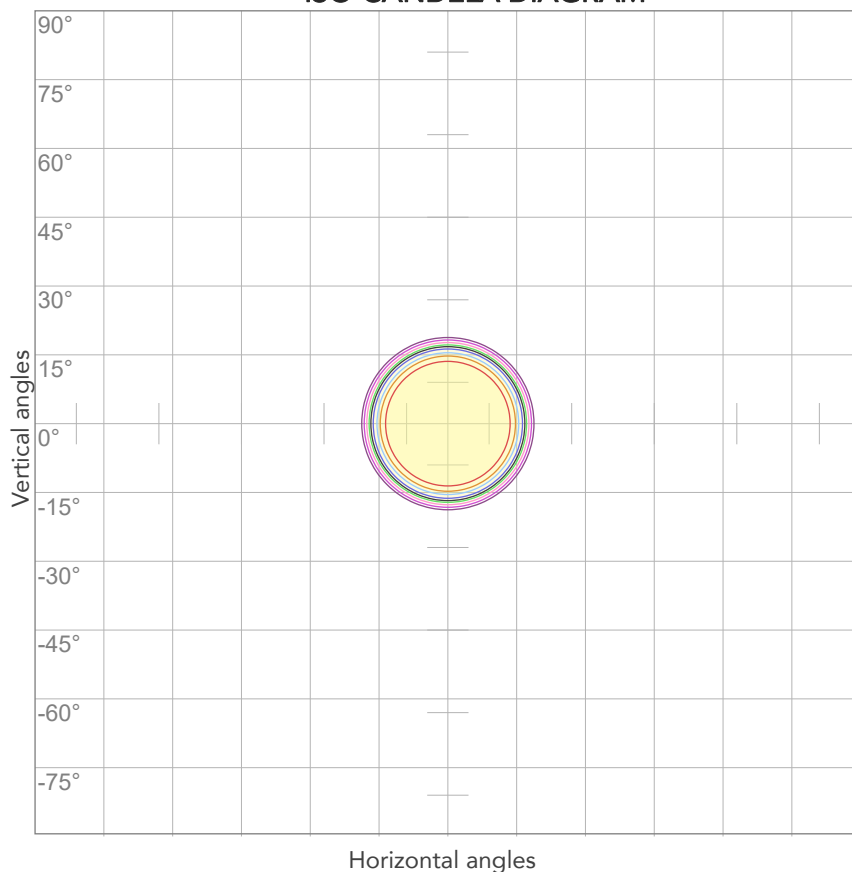


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,116A | 23,8W | 0,91 | 13lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



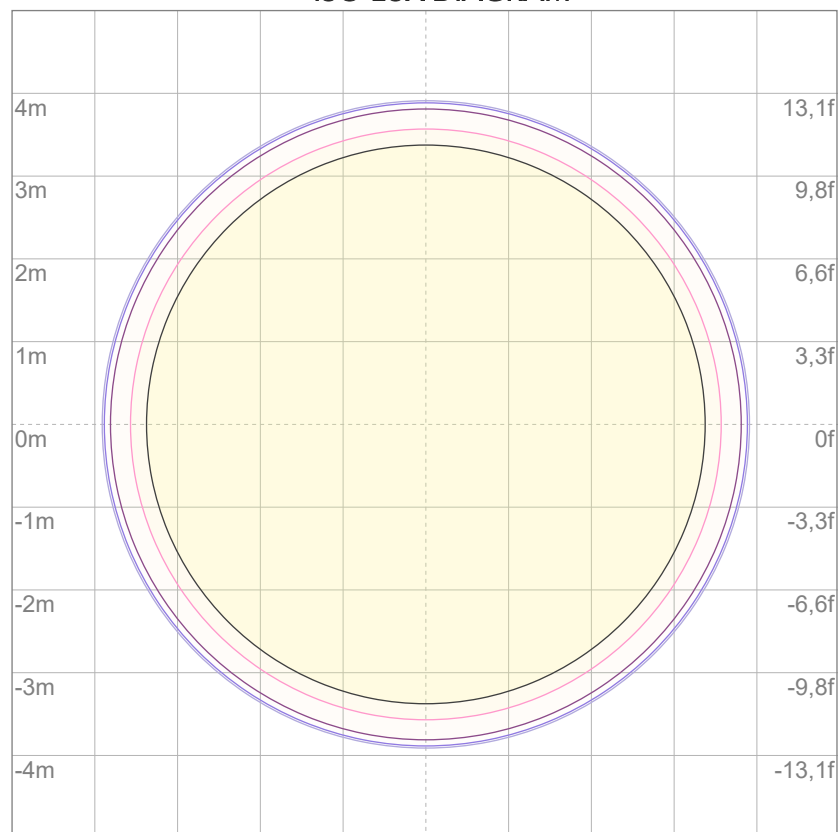
| | |
|-----|--------|
| 10% | 99 cd |
| 20% | 197 cd |
| 30% | 296 cd |
| 40% | 394 cd |
| 50% | 493 cd |
| 60% | 592 cd |
| 70% | 690 cd |
| 80% | 789 cd |

Conditions:

Number of c-planes: 2

Candela at center: 986 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,296 lx |
| 5% | 0,493 lx |
| 10% | 0,986 lx |
| 30% | 2,96 lx |
| 50% | 4,93 lx |

Conditions:

Number of c-planes: 2

Lux at center: 9,86 lx

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



Total lumen output:

348 lm

Peak candela output:

4728 cd

Light quality:

CRI: 93,5

Color temperature:

4054 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Min Zoom

Target:

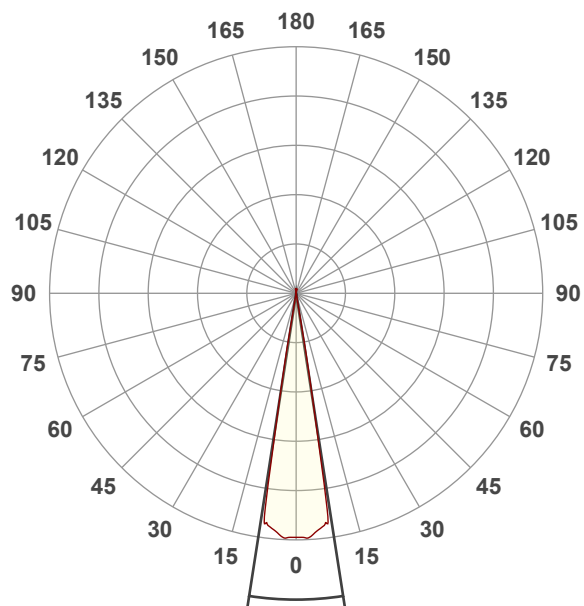
4000K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:21:26

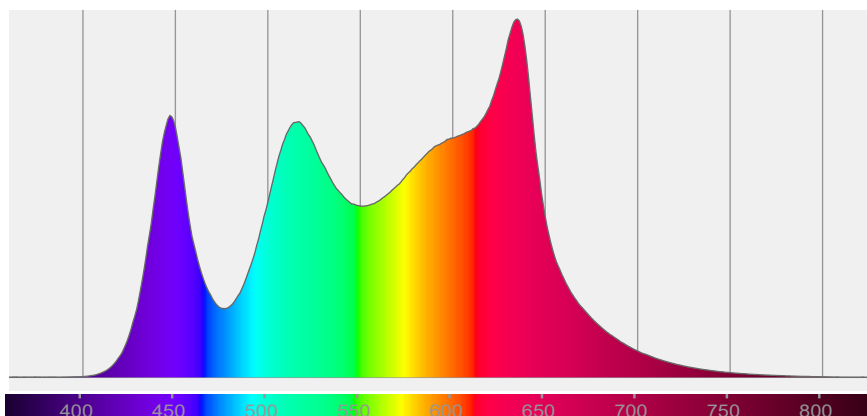


Beam angle 50%: 17,6°

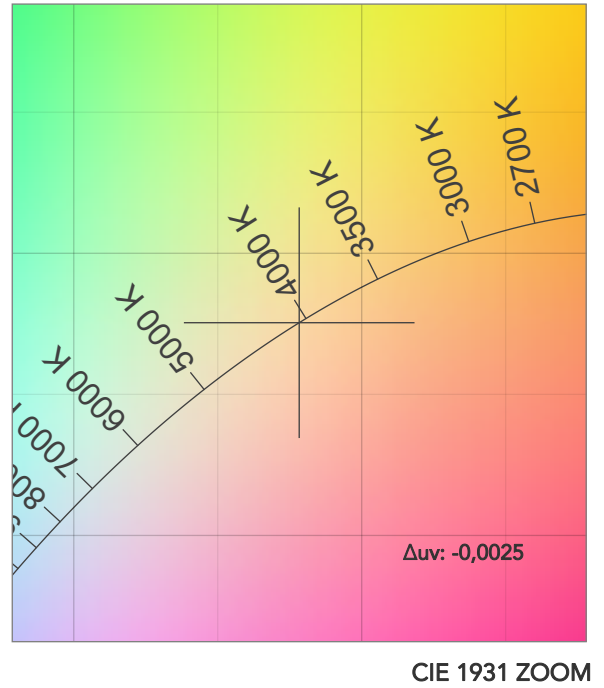
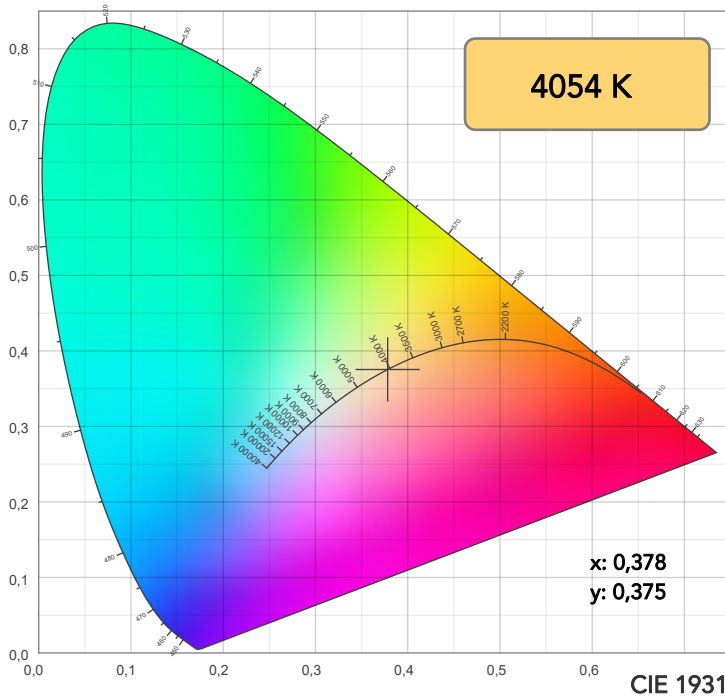
Field angle 10%: 19,5°

Cut off angle 2.5%: 20°

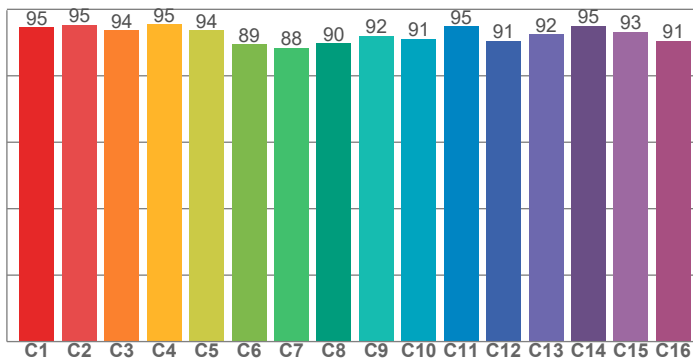
Spectra



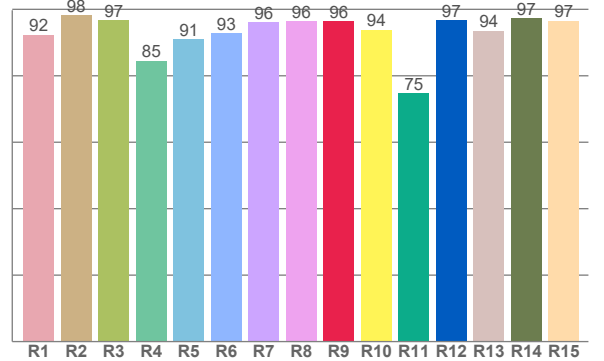
COLOR DETAILS



TM30: 92,8



CRI: 93,5 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| 92,3 | 98,1 | 96,7 | 84,5 | 91,0 | 92,8 | 96,1 | 96,4 | 93,8 | 74,8 | 96,7 | 93,5 | 97,2 | 96,6 | |

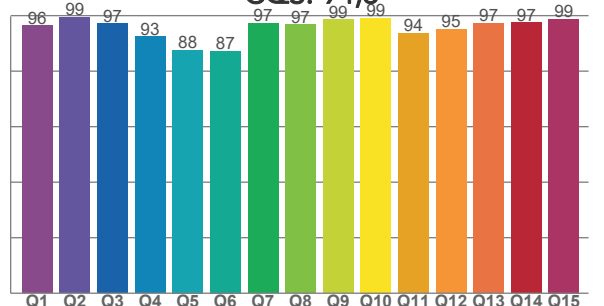
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94,6 | 95,3 | 93,6 | 95,4 | 93,7 | 89,5 | 88,5 | 89,8 | 92,1 | 91,2 | 94,9 | 90,5 | 92,5 | 95,0 | 93,2 | 90,6 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 96,5 | 99,4 | 97,2 | 92,5 | 87,6 | 87,2 | 97,2 | 96,7 | 98,6 | 99,1 | 93,6 | 95,1 | 97,2 | 97,5 | 98,7 |

CQS: 94,3



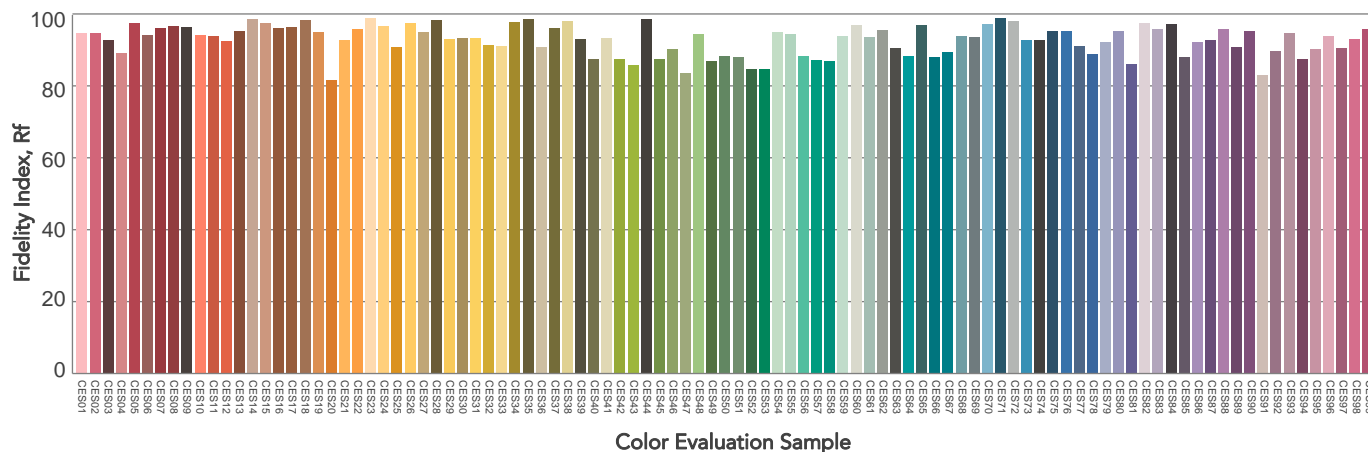
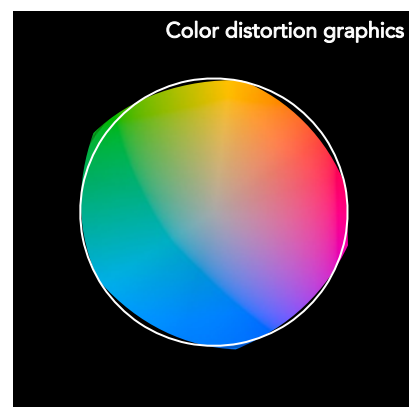
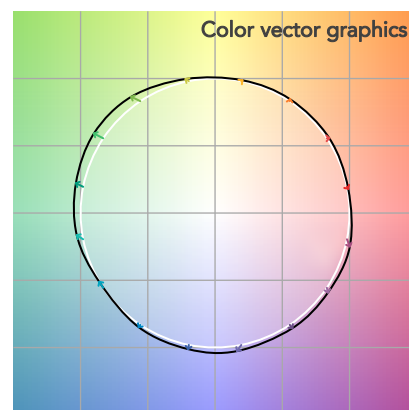
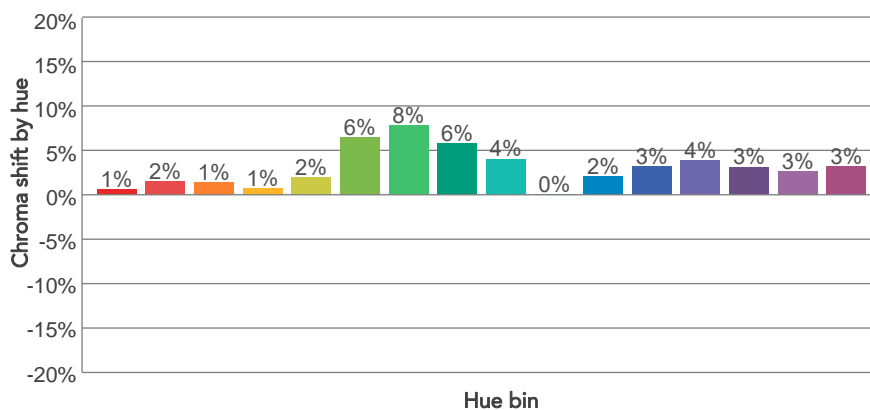
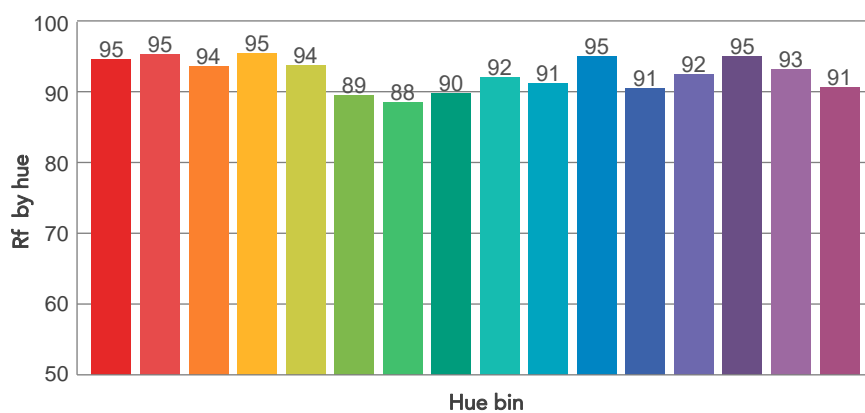
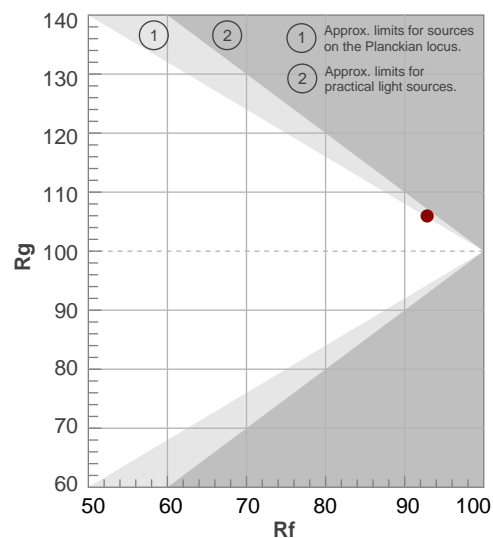
COLOR PARAMETERS

| 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 |
| 4054 K | 93,5 | 96,4 | 92,8 | 106,0 | 94,3 | 81 | 0,378 | 0,375 | -0,0025 |

Fidelity index R_f

Gammut index

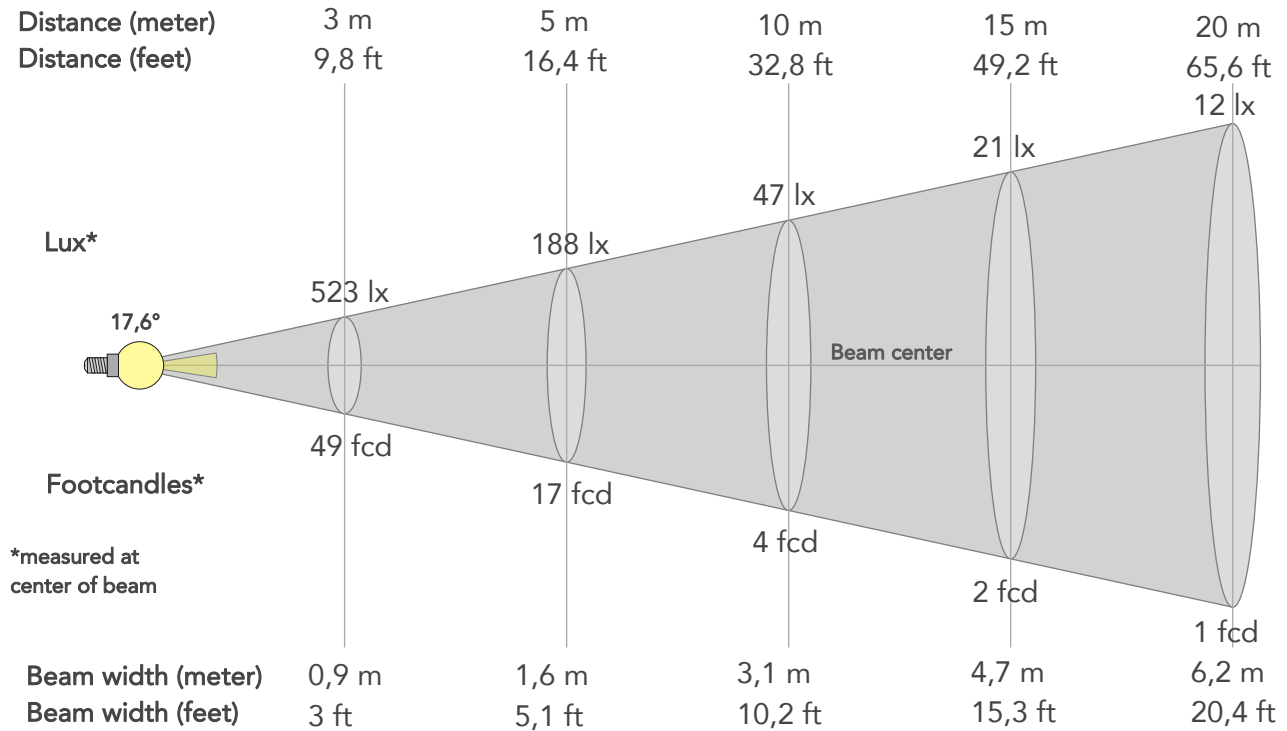
| | | Graphic shifts (%) | |
|---------|-------|--------------------|-----|
| Hue Bin | R_f | Chroma | Hue |
| 1 | 95 | 1% | -2% |
| 2 | 95 | 2% | -1% |
| 3 | 94 | 1% | 1% |
| 4 | 95 | 1% | -1% |
| 5 | 94 | 2% | 2% |
| 6 | 89 | 6% | 4% |
| 7 | 88 | 8% | 1% |
| 8 | 90 | 6% | -2% |
| 9 | 92 | 4% | -4% |
| 10 | 91 | 0% | -5% |
| 11 | 95 | 2% | 0% |
| 12 | 91 | 3% | 0% |
| 13 | 92 | 4% | -4% |
| 14 | 95 | 3% | 0% |
| 15 | 93 | 3% | -2% |
| 16 | 91 | 3% | -5% |



BEAM DETAILS



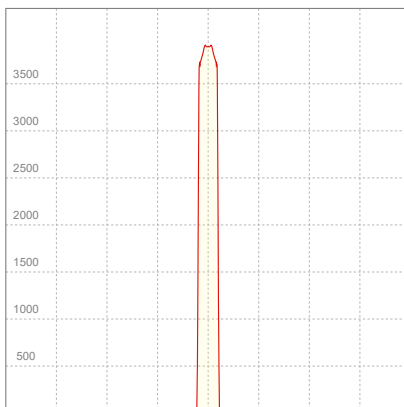
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 17,6° | 19,5° | 20° | 100,0% | 100,0% |



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 | 4709lx | 1177lx | 523lx | 294lx | 188lx | 84lx | 47lx | 21lx | 12lx | 8lx | 5lx | 3lx | 2lx |
| Footcand. | 437fcd | 109fcd | 49fcd | 27fcd | 17fcd | 8fcd | 4fcd | 2fcd | 1fcd | 1fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,9m | 1,2m | 1,6m | 2,3m | 3,1m | 4,7m | 6,2m | 7,8m | 9,3m | 12,4m | 15,5m |
| Beam wid. | 1ft | 2ft | 3ft | 4,1ft | 5,1ft | 7,6ft | 10,2ft | 15,3ft | 20,4ft | 25,5ft | 30,6ft | 40,7ft | 50,9ft |

LINEAR DISTRIBUTION DIAGRAM

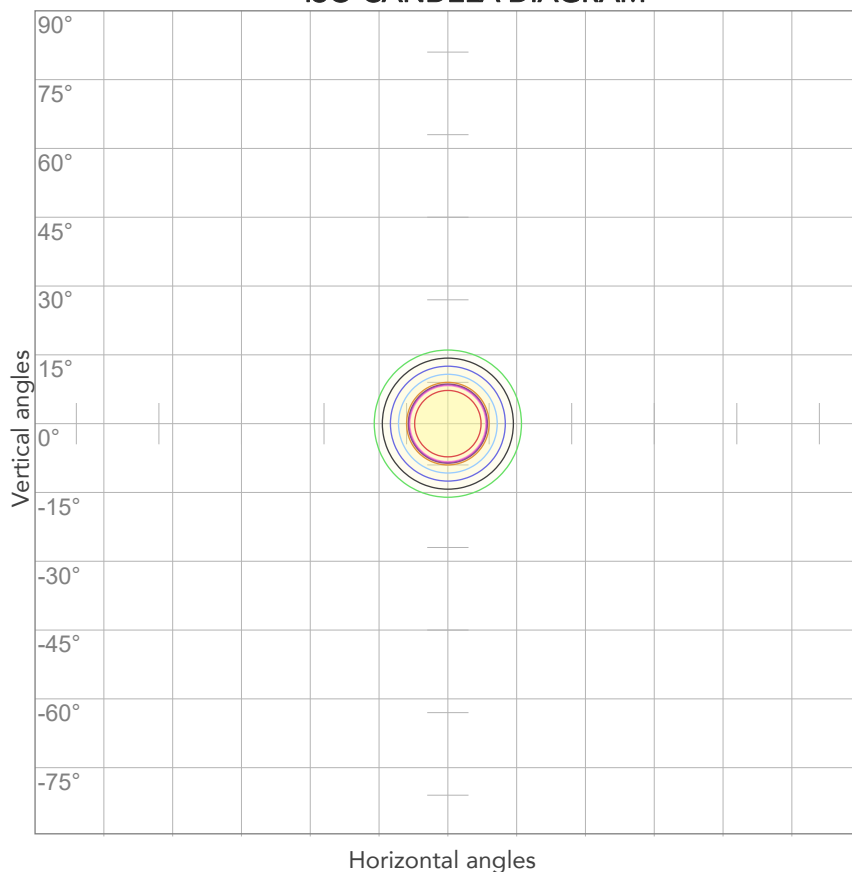


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,117A | 23,9W | 0,92 | 15lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



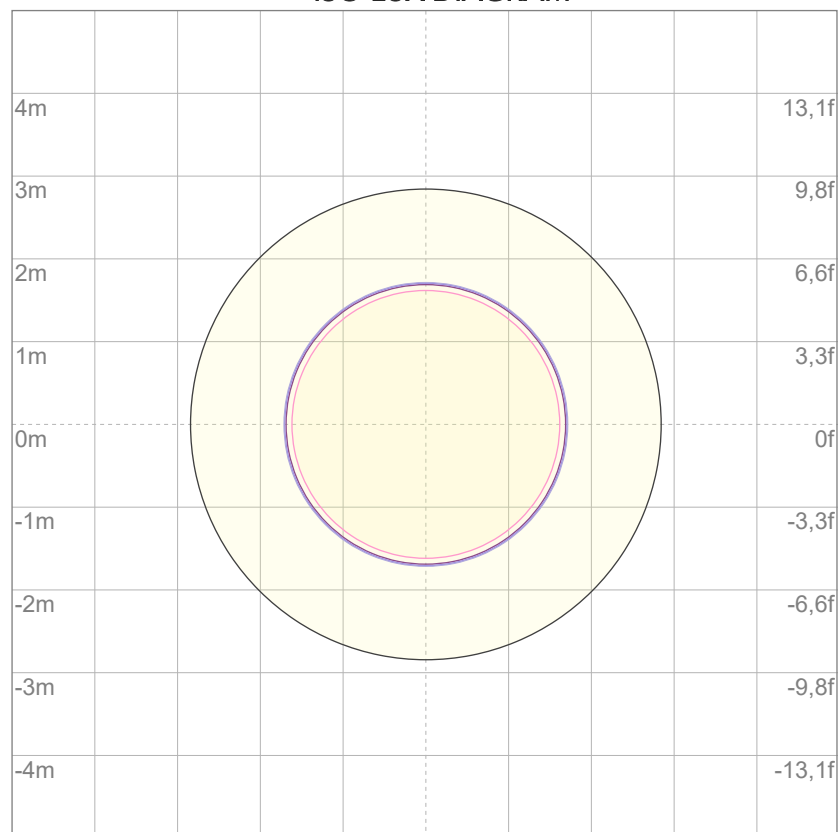
| | |
|-----|---------|
| 10% | 471 cd |
| 20% | 942 cd |
| 30% | 1413 cd |
| 40% | 1884 cd |
| 50% | 2354 cd |
| 60% | 2825 cd |
| 70% | 3296 cd |
| 80% | 3767 cd |

Conditions:

Number of c-planes: 2

Candela at center: 4709 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,41 lx |
| 5% | 2,35 lx |
| 10% | 4,71 lx |
| 30% | 14,1 lx |
| 50% | 23,5 lx |

Conditions:

Number of c-planes: 2

Lux at center: 47,1 lx

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



Total lumen output:

339 lm

Peak candela output:

1065 cd

Light quality:

CRI: 91,2

Color temperature:

5620 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Max Zoom

Target:

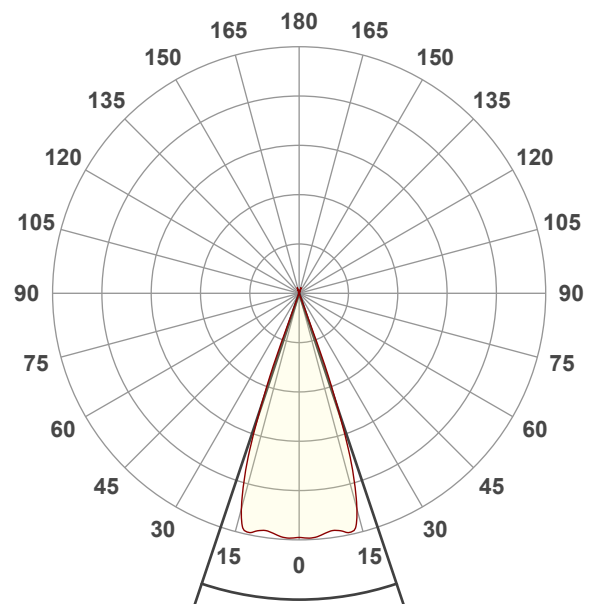
5600K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:36:00

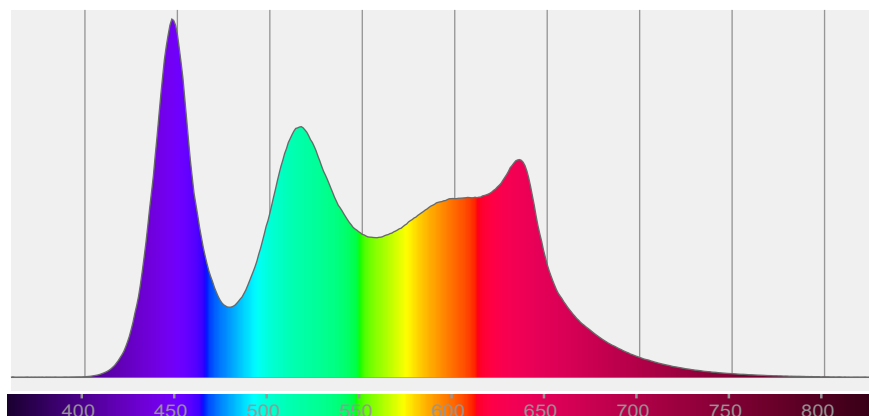


Beam angle 50%: 37,1°

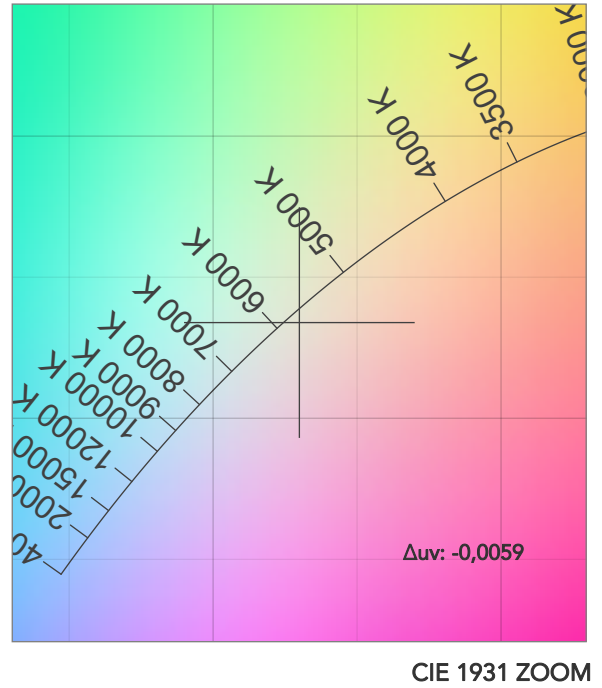
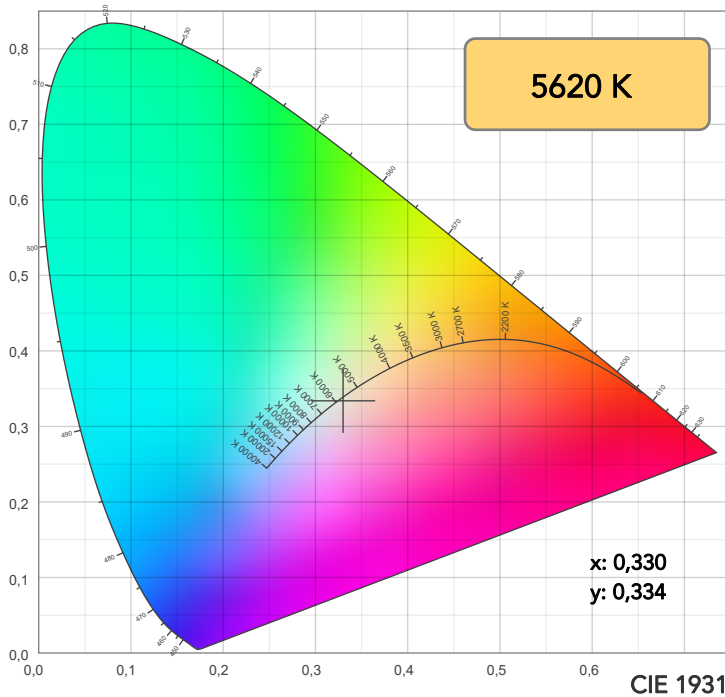
Field angle 10%: 41,6°

Cut off angle 2.5%: 42,4°

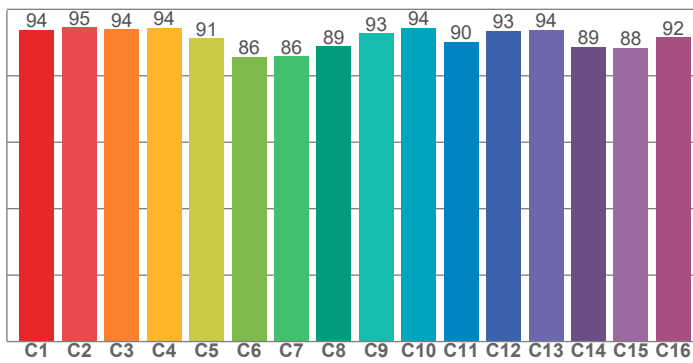
Spectra



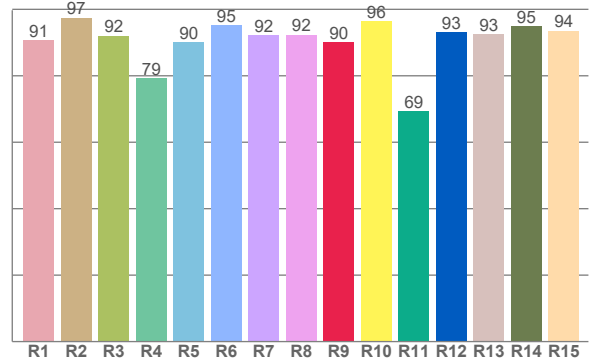
COLOR DETAILS



TM30: 91,4



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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 90,6 | 97,4 | 92,1 | 79,3 | 90,1 | 95,2 | 92,2 | 92,3 | 90,1 | 96,5 | 69,4 | 93,0 | 92,5 | 94,8 | 93,5 |

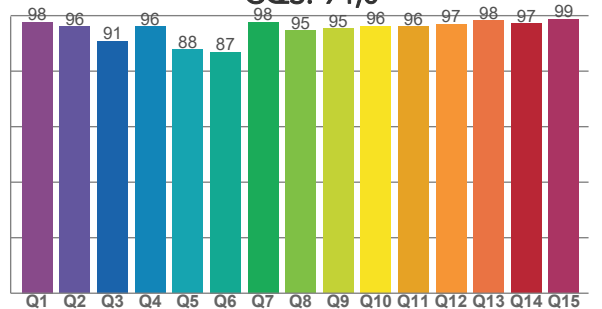
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93,9 | 94,6 | 94,0 | 94,5 | 91,2 | 85,7 | 85,8 | 88,8 | 92,7 | 94,4 | 90,2 | 93,5 | 93,8 | 88,8 | 88,5 | 91,5 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 97,7 | 96,0 | 90,8 | 96,1 | 87,8 | 86,9 | 97,7 | 94,6 | 95,3 | 96,3 | 96,1 | 97,1 | 98,2 | 97,1 | 98,7 |

CQS: 94,0



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 |
| 5620 K | 91,2 | 90,1 | 91,4 | 108,2 | 94,0 | 82 | 0,330 | 0,334 | -0,0059 |

TM30 DETAILS

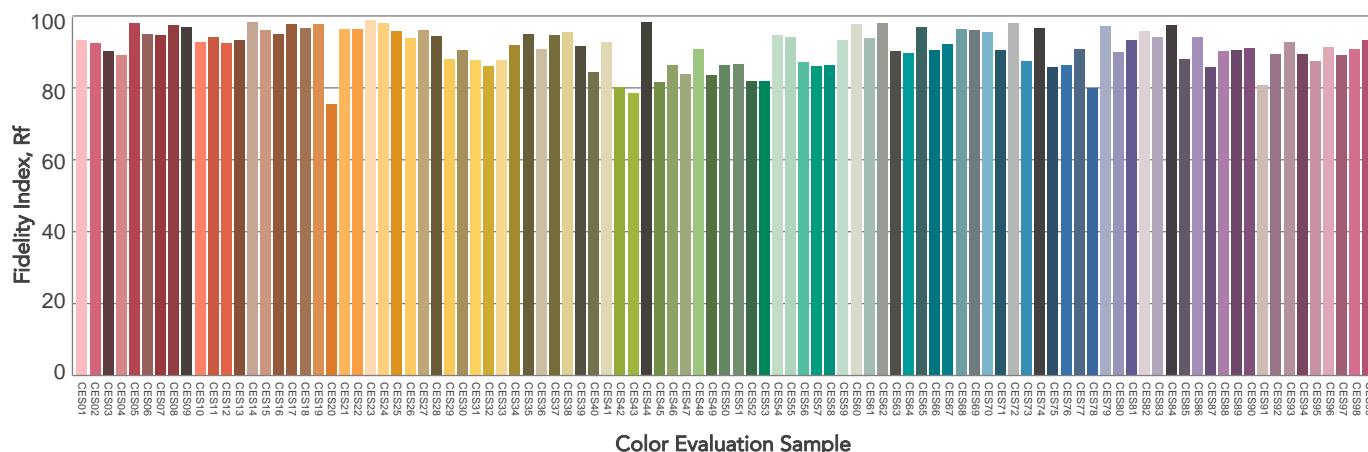
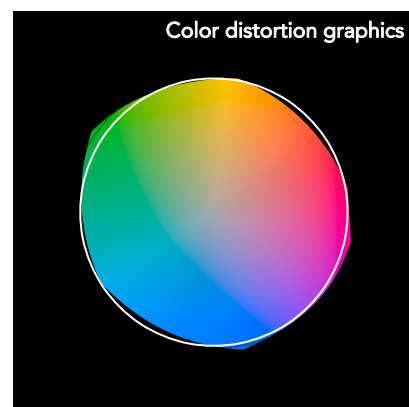
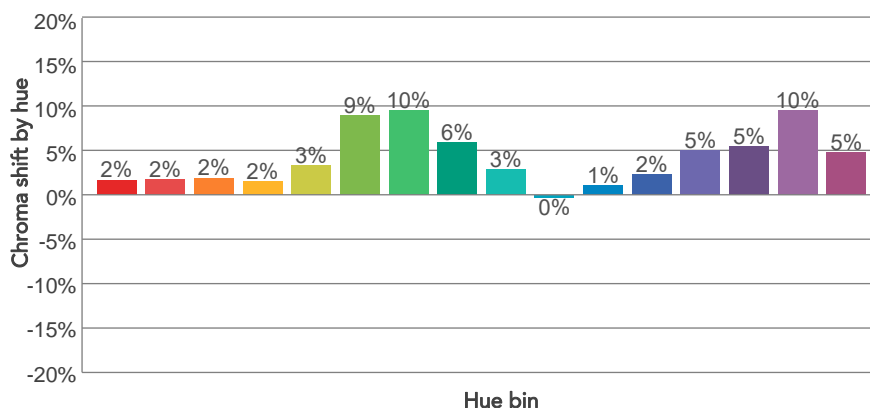
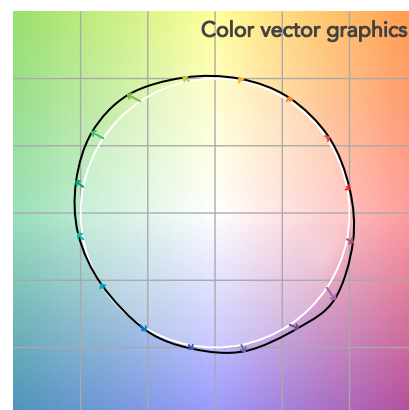
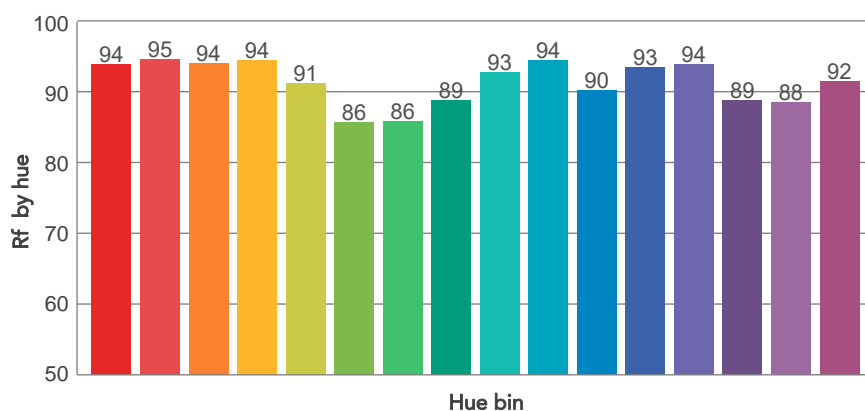
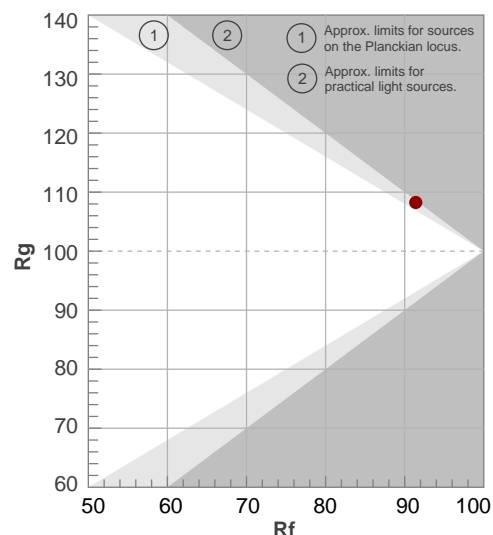
Rf 91,4

Fidelity index Rf

Rg 108,2

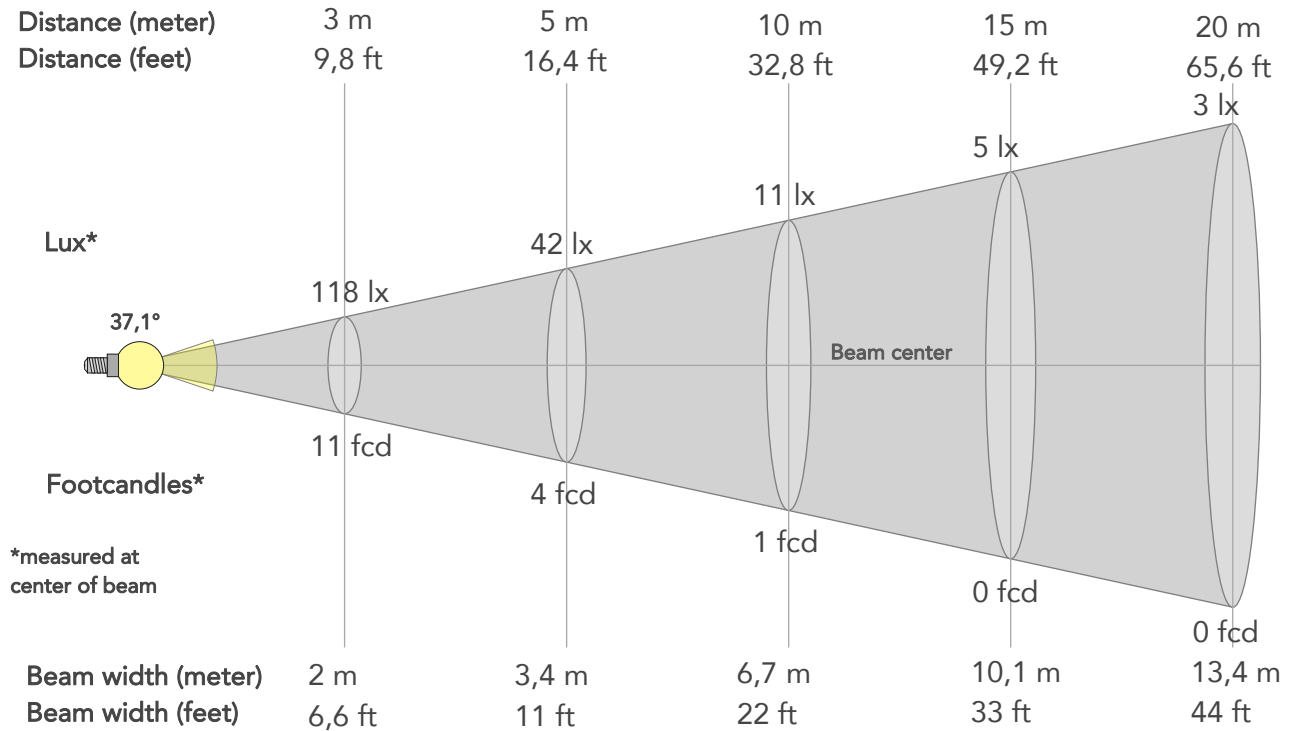
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 94 | 2% | -2% |
| 2 | 95 | 2% | 0% |
| 3 | 94 | 2% | 2% |
| 4 | 94 | 2% | 2% |
| 5 | 91 | 3% | 3% |
| 6 | 86 | 9% | 5% |
| 7 | 86 | 10% | 1% |
| 8 | 89 | 6% | -3% |
| 9 | 93 | 3% | -5% |
| 10 | 94 | 0% | -3% |
| 11 | 90 | 1% | 6% |
| 12 | 93 | 2% | 3% |
| 13 | 94 | 5% | 2% |
| 14 | 89 | 5% | 4% |
| 15 | 88 | 10% | -4% |
| 16 | 92 | 5% | -1% |



BEAM DETAILS

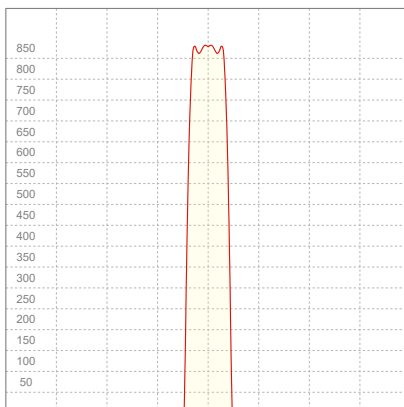
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 37,1° | 41,6° | 42,4° | 100,0% | 100,0% |



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 | 1062lx | 265lx | 118lx | 66lx | 42lx | 19lx | 11lx | 5lx | 3lx | 2lx | 1lx | 1lx | 0lx |
| Footcand. | 99fcd | 25fcd | 11fcd | 6fcd | 4fcd | 2fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,7m | 1,3m | 2m | 2,7m | 3,4m | 5m | 6,7m | 10,1m | 13,4m | 16,8m | 20,1m | 26,8m | 33,6m |
| Beam wid. | 2,2ft | 4,4ft | 6,6ft | 8,8ft | 11ft | 16,5ft | 22ft | 33ft | 44ft | 55ft | 66ft | 88ft | 110ft |

LINEAR DISTRIBUTION DIAGRAM

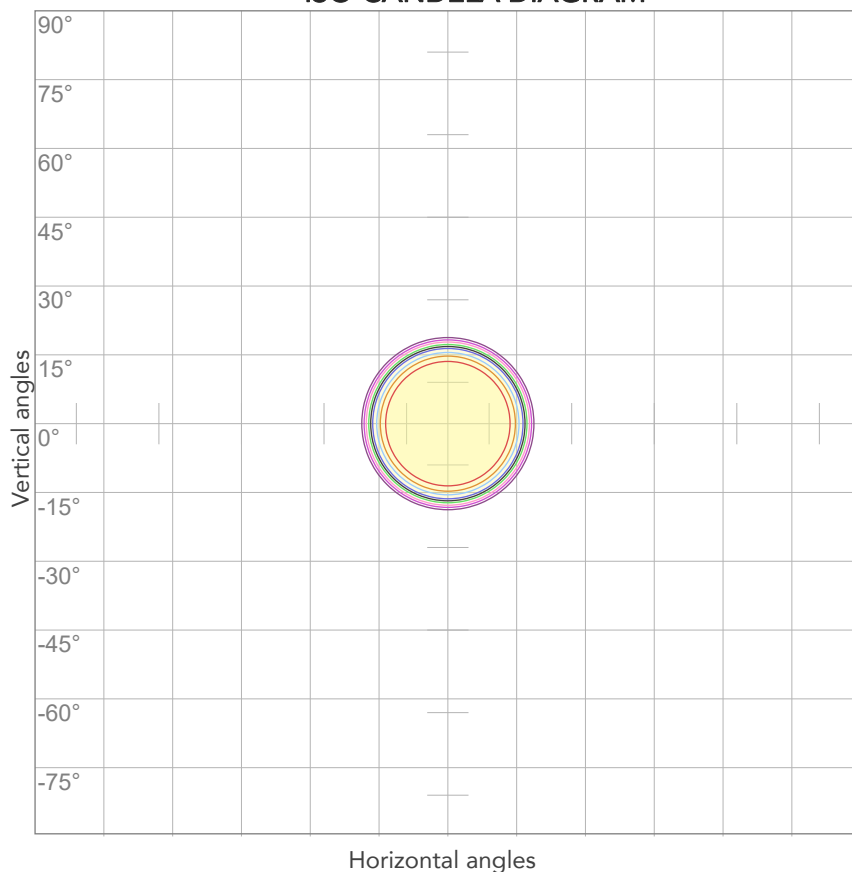


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 223V | 0,127A | 26,2W | 0,92 | 13lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



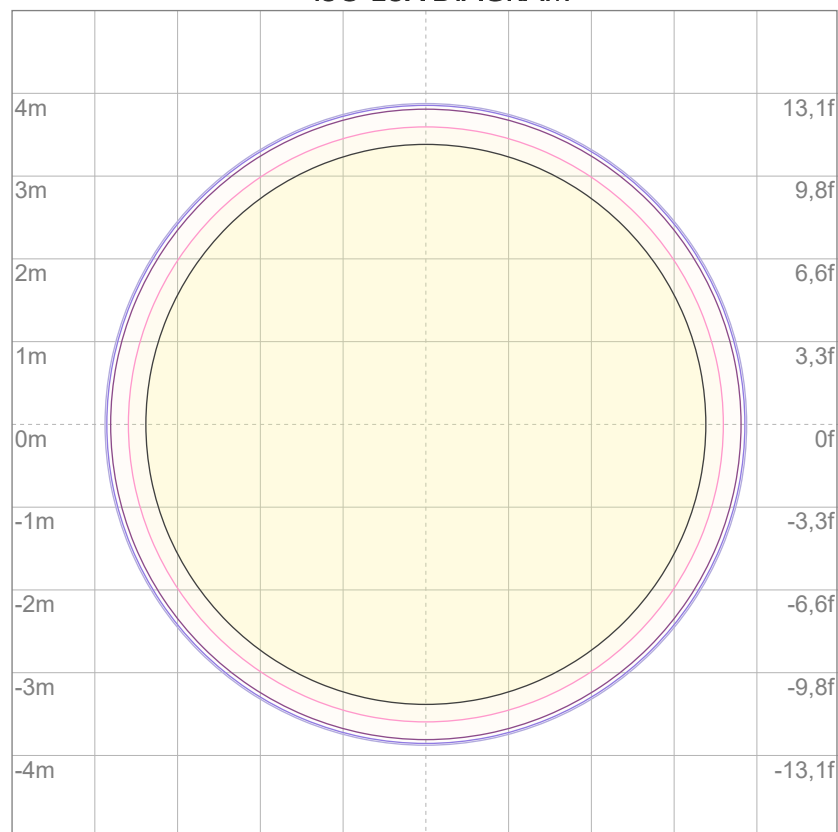
| | |
|-----|--------|
| 10% | 106 cd |
| 20% | 212 cd |
| 30% | 319 cd |
| 40% | 425 cd |
| 50% | 531 cd |
| 60% | 637 cd |
| 70% | 743 cd |
| 80% | 849 cd |

Conditions:

Number of c-planes: 2

Candela at center: 1062 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,319 lx |
| 5% | 0,531 lx |
| 10% | 1,06 lx |
| 30% | 3,19 lx |
| 50% | 5,31 lx |

Conditions:

Number of c-planes: 2

Lux at center: 10,6 lx

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



Total lumen output:

374 lm

Peak candela output:

5022 cd

Light quality:

CRI: 91,0

Color temperature:

5650 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Min Zoom

Target:

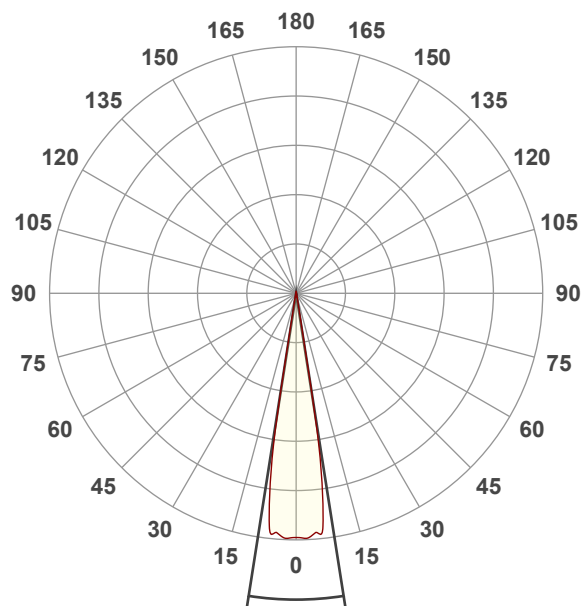
5600K

Operator:

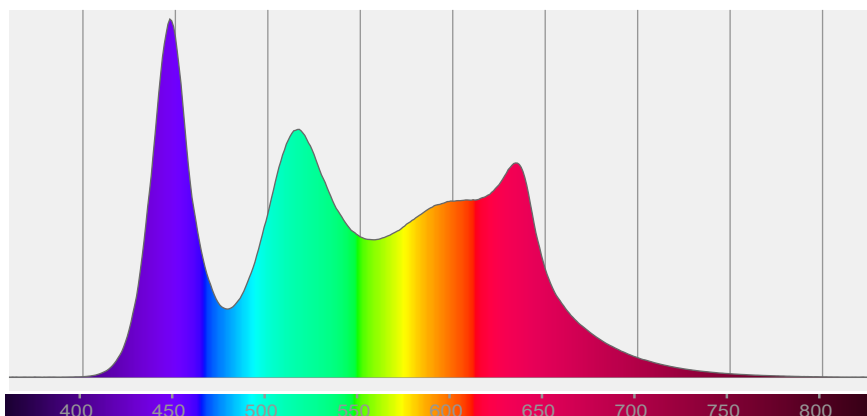
Paolo Carvone

Date and time:

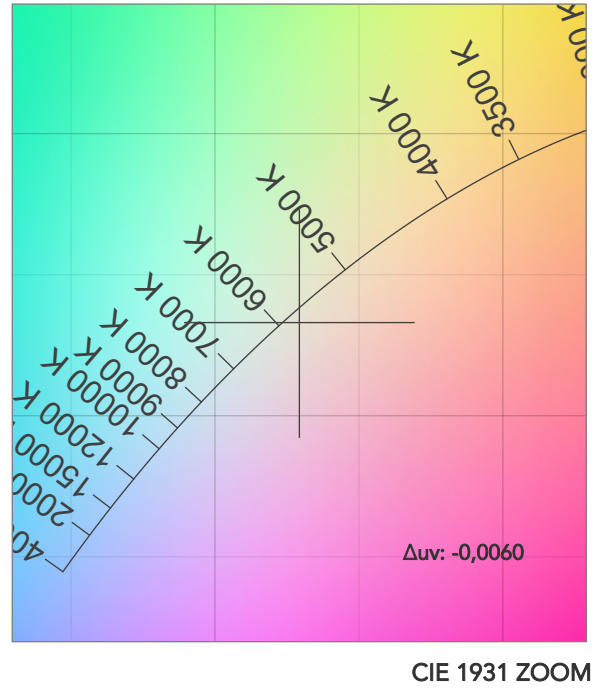
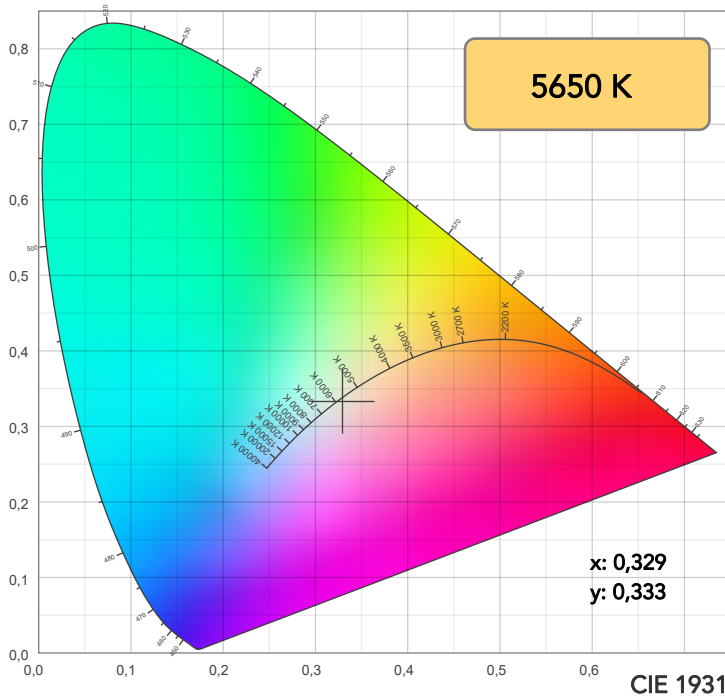
14/01/2021 11:25:05



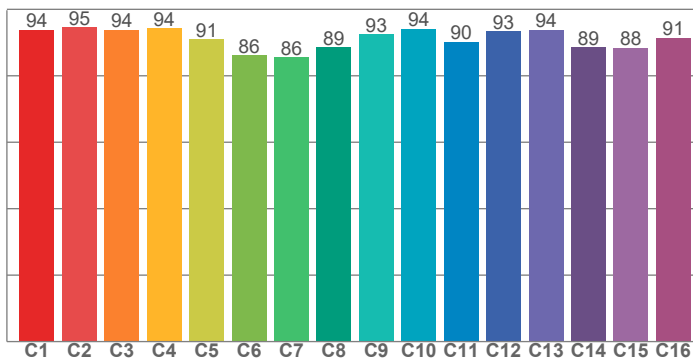
Spectra



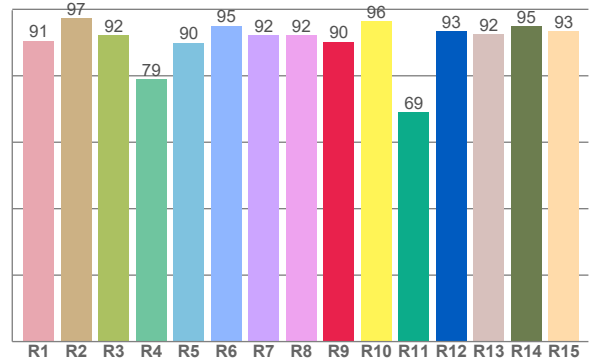
COLOR DETAILS



TM30: 91,3



CRI: 91,0 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 90,5 | 97,4 | 92,1 | 78,9 | 90,0 | 95,1 | 92,1 | 92,3 | 90,2 | 96,3 | 69,0 | 93,4 | 92,5 | 94,9 | 93,4 |

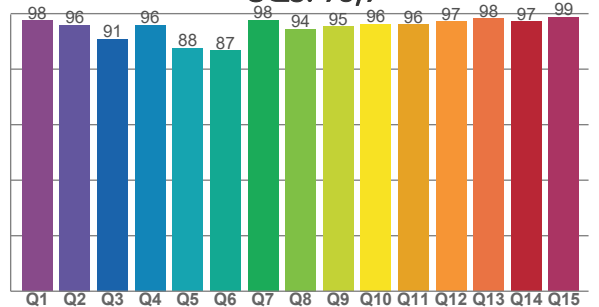
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93,8 | 94,5 | 93,8 | 94,3 | 91,0 | 86,1 | 85,5 | 88,6 | 92,5 | 94,2 | 90,1 | 93,4 | 93,7 | 88,6 | 88,5 | 91,4 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 97,6 | 95,9 | 90,8 | 95,9 | 87,5 | 86,8 | 97,8 | 94,5 | 95,3 | 96,3 | 96,1 | 97,1 | 98,3 | 97,1 | 98,7 |

CQS: 93,9



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 |
| 5650 K | 91,0 | 90,2 | 91,3 | 108,4 | 93,9 | 81 | 0,329 | 0,333 | -0,0060 |

TM30 DETAILS

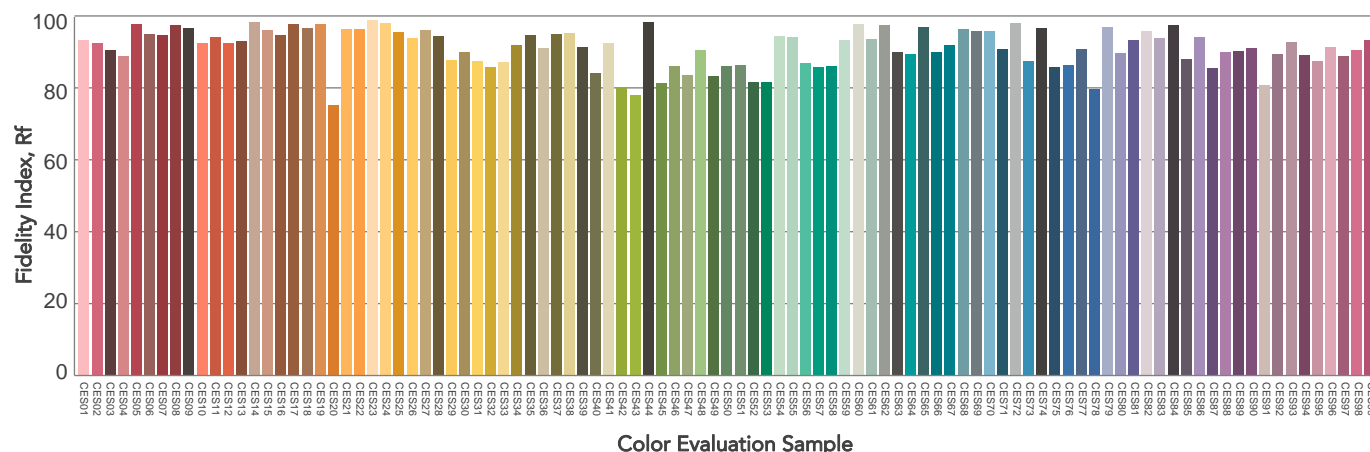
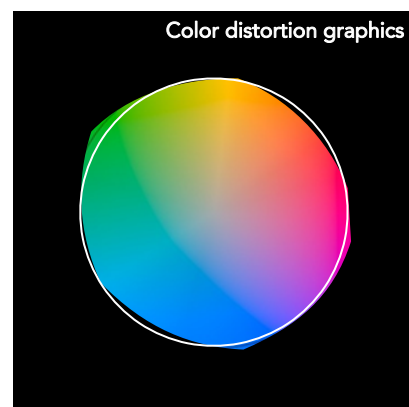
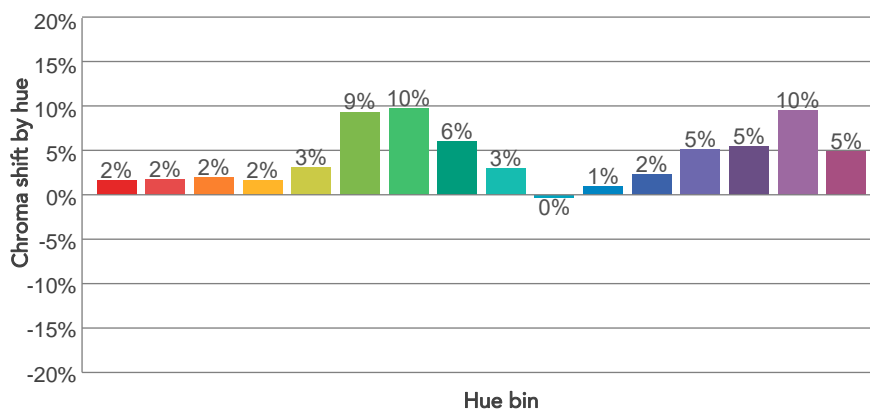
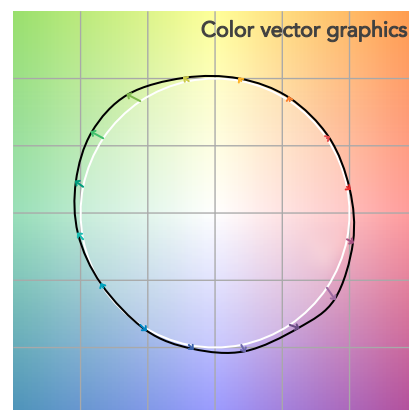
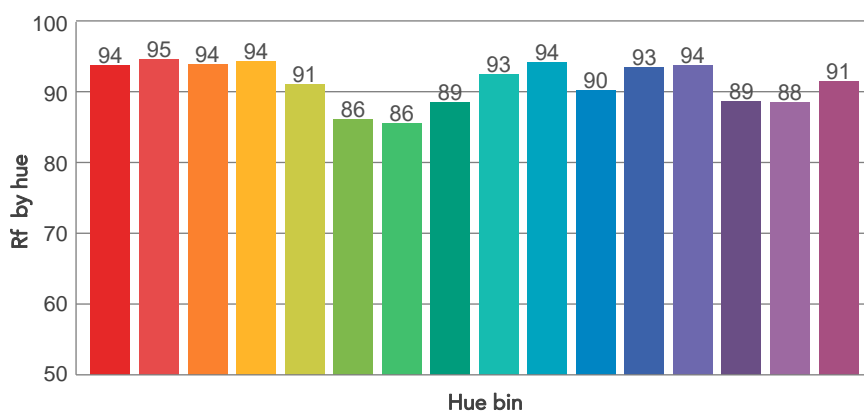
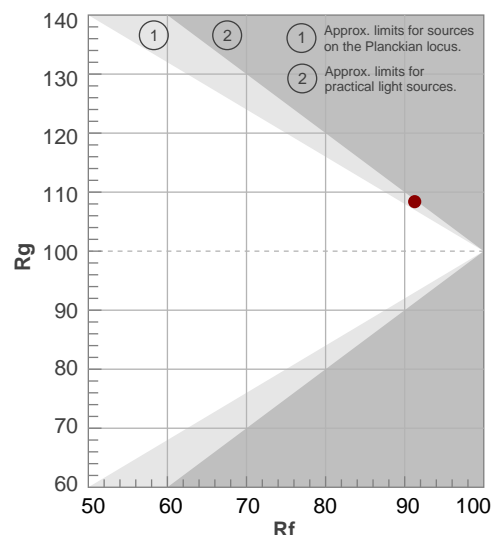
Rf 91,3

Fidelity index Rf

Rg 108,4

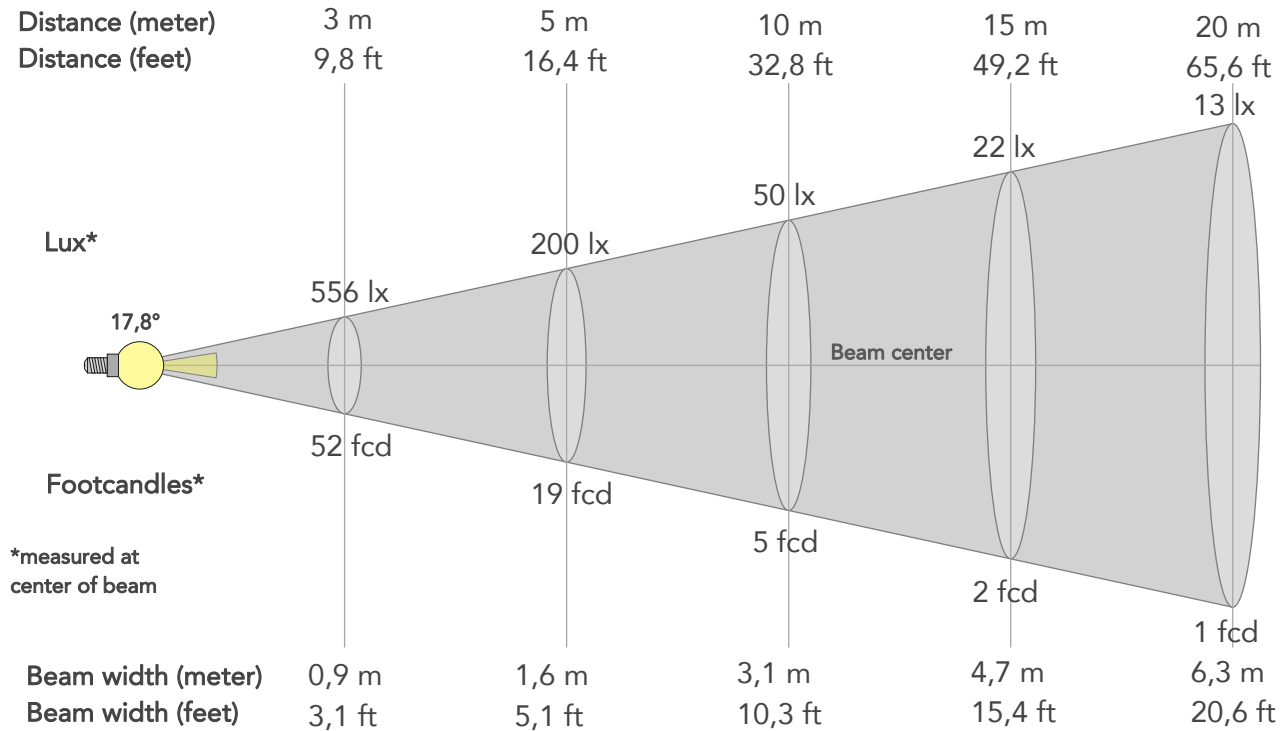
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 94 | 2% | -2% |
| 2 | 95 | 2% | 0% |
| 3 | 94 | 2% | 2% |
| 4 | 94 | 2% | 2% |
| 5 | 91 | 3% | 3% |
| 6 | 86 | 9% | 5% |
| 7 | 86 | 10% | 1% |
| 8 | 89 | 6% | -3% |
| 9 | 93 | 3% | -5% |
| 10 | 94 | 0% | -3% |
| 11 | 90 | 1% | 6% |
| 12 | 93 | 2% | 3% |
| 13 | 94 | 5% | 2% |
| 14 | 89 | 5% | 4% |
| 15 | 88 | 10% | -4% |
| 16 | 91 | 5% | -1% |



BEAM DETAILS

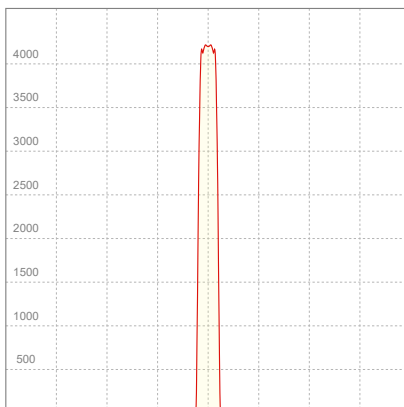
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 17,8° | 20,5° | 22,9° | 100,0% | 100,0% |



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 | 5007lx | 1252lx | 556lx | 313lx | 200lx | 89lx | 50lx | 22lx | 13lx | 8lx | 6lx | 3lx | 2lx |
| Footcand. | 465fcd | 116fcd | 52fcd | 29fcd | 19fcd | 8fcd | 5fcd | 2fcd | 1fcd | 1fcd | 1fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,9m | 1,3m | 1,6m | 2,4m | 3,1m | 4,7m | 6,3m | 7,8m | 9,4m | 12,6m | 15,7m |
| Beam wid. | 1ft | 2,1ft | 3,1ft | 4,1ft | 5,1ft | 7,7ft | 10,3ft | 15,4ft | 20,6ft | 25,7ft | 30,9ft | 41,2ft | 51,5ft |

LINEAR DISTRIBUTION DIAGRAM

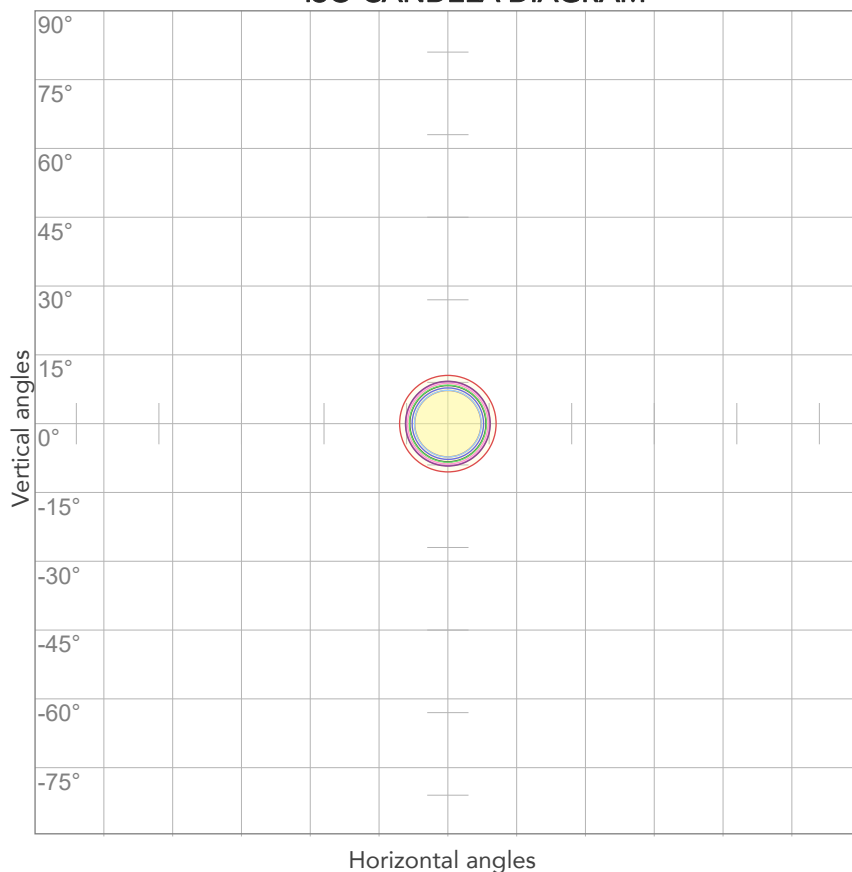


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 223V | 0,127A | 26,3W | 0,92 | 14lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



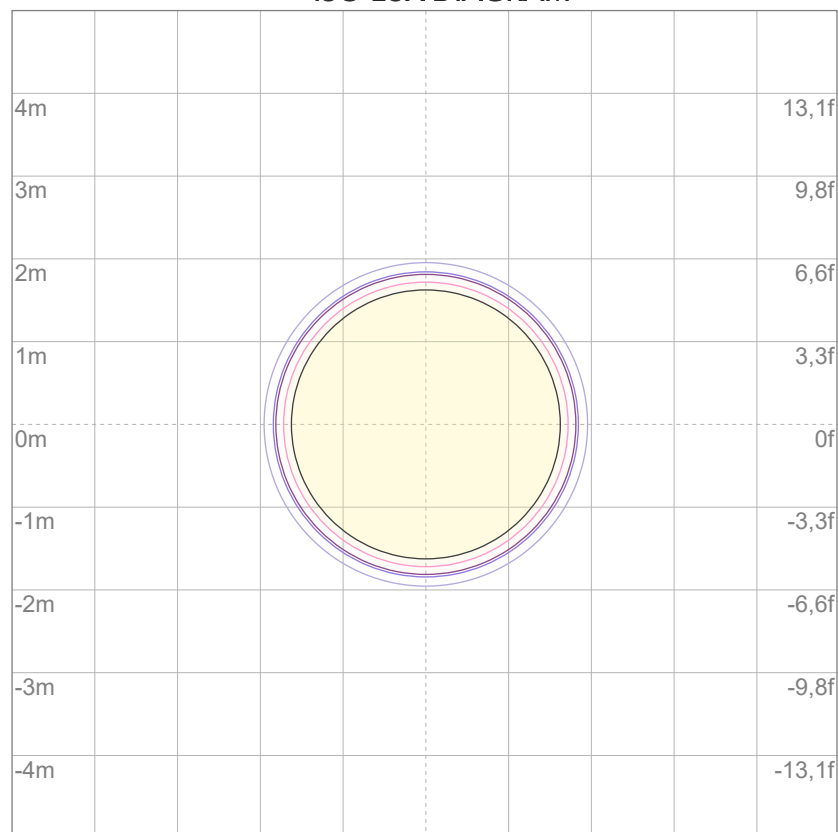
| | |
|-----|---------|
| 10% | 501 cd |
| 20% | 1001 cd |
| 30% | 1502 cd |
| 40% | 2003 cd |
| 50% | 2503 cd |
| 60% | 3004 cd |
| 70% | 3505 cd |
| 80% | 4006 cd |

Conditions:

Number of c-planes: 2

Candela at center: 5007 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,50 lx |
| 5% | 2,50 lx |
| 10% | 5,01 lx |
| 30% | 15,0 lx |
| 50% | 25,0 lx |

Conditions:

Number of c-planes: 2

Lux at center: 50,1 lx

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



Total lumen output:

344 lm

Peak candela output:

1084 cd

Light quality:

CRI: 90,7

Color temperature:

6009 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Max Zoom

Target:

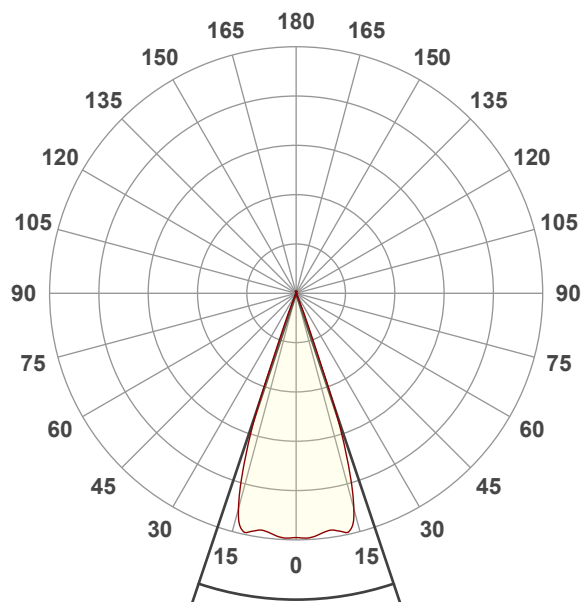
6000K

Operator:

Paolo Carvone

Date and time:

14/01/2021 11:37:35

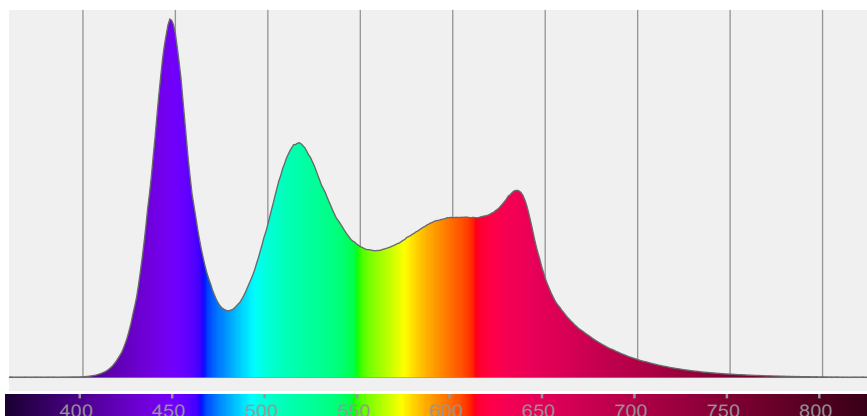


Beam angle 50%: 37,1°

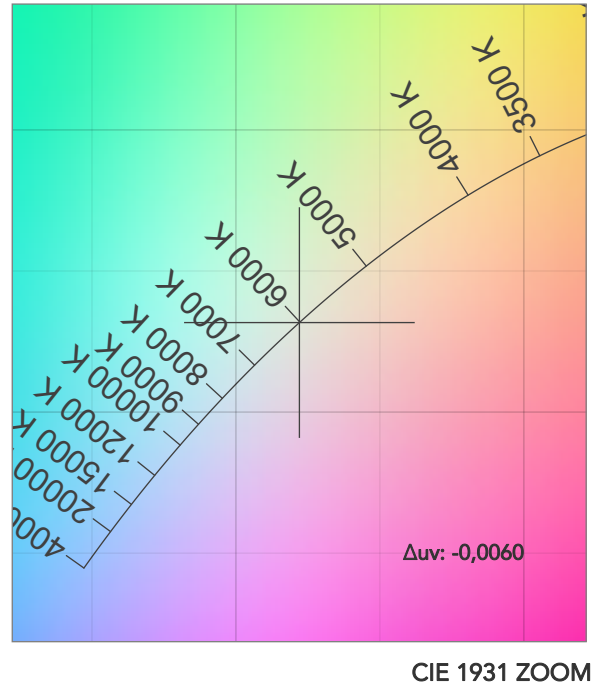
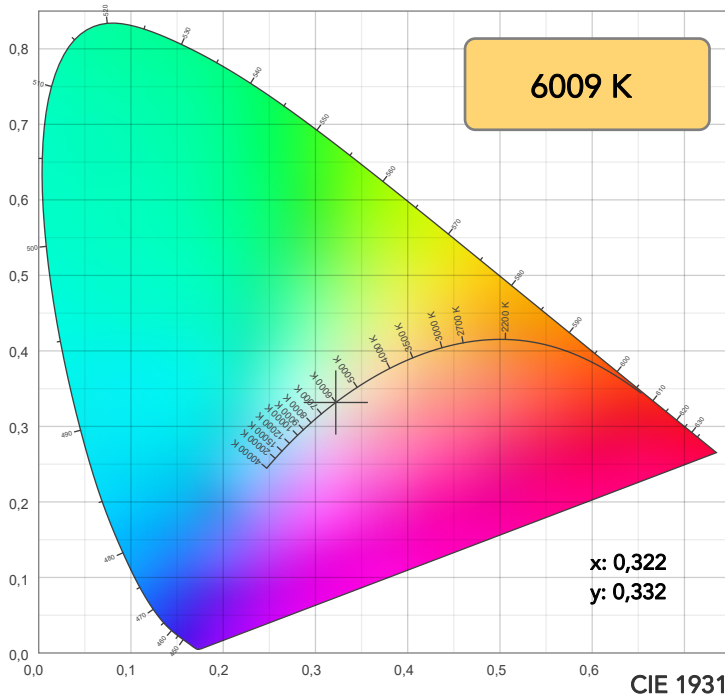
Field angle 10%: 42°

Cut off angle 2.5%: 44,1°

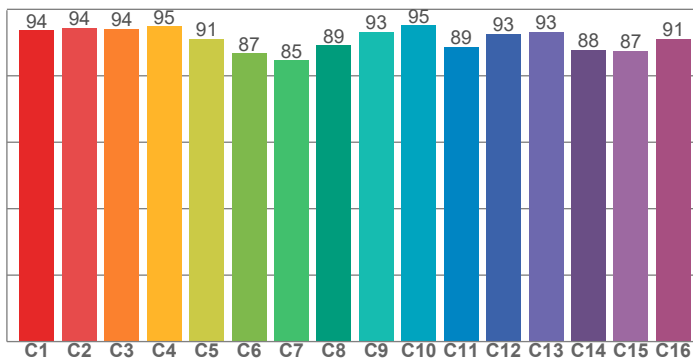
Spectra



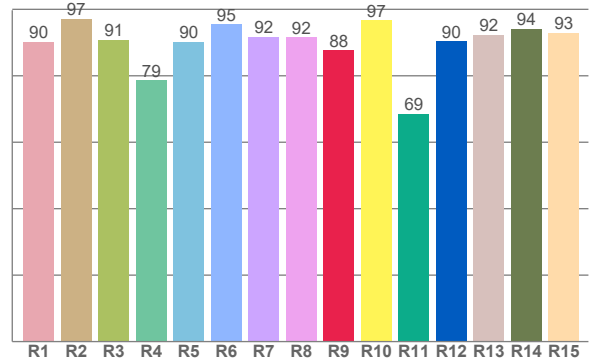
COLOR DETAILS



TM30: 91,2



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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 90,3 | 97,2 | 90,9 | 78,6 | 90,3 | 95,4 | 91,8 | 91,5 | 87,8 | 96,7 | 68,6 | 90,4 | 92,4 | 94,2 | 92,9 |

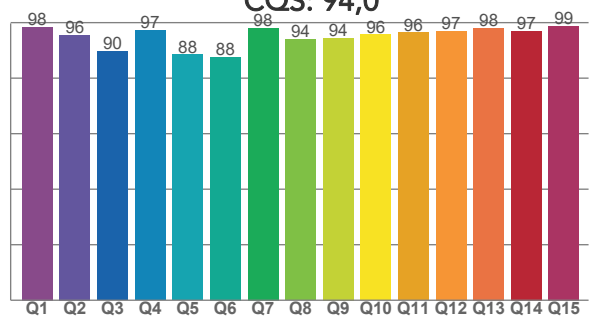
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93,6 | 94,5 | 94,1 | 94,9 | 91,1 | 86,8 | 84,6 | 89,1 | 93,2 | 95,2 | 88,7 | 92,6 | 93,2 | 87,8 | 87,4 | 91,1 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 98,4 | 95,6 | 89,7 | 97,2 | 88,5 | 87,6 | 98,0 | 94,0 | 94,5 | 95,7 | 96,4 | 97,0 | 98,0 | 97,0 | 98,7 |

CQS: 94,0



COLOR PARAMETERS

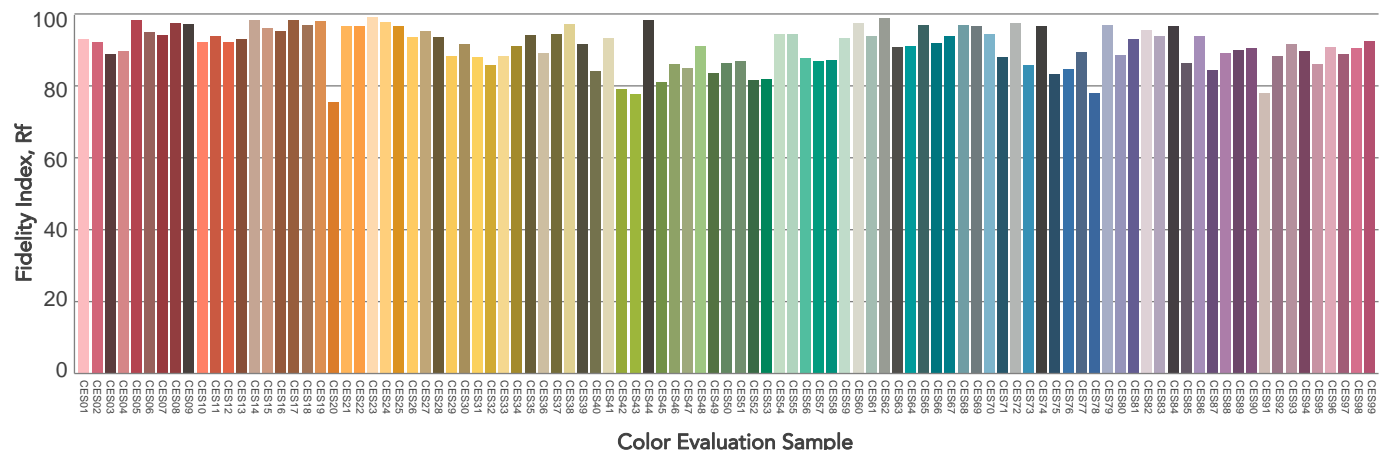
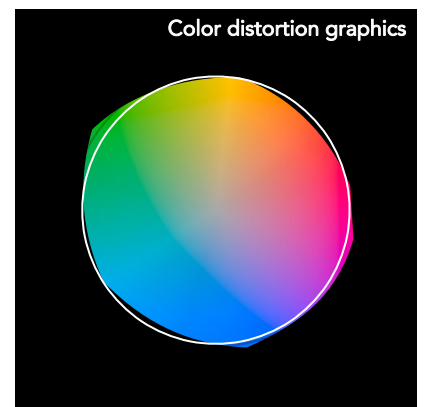
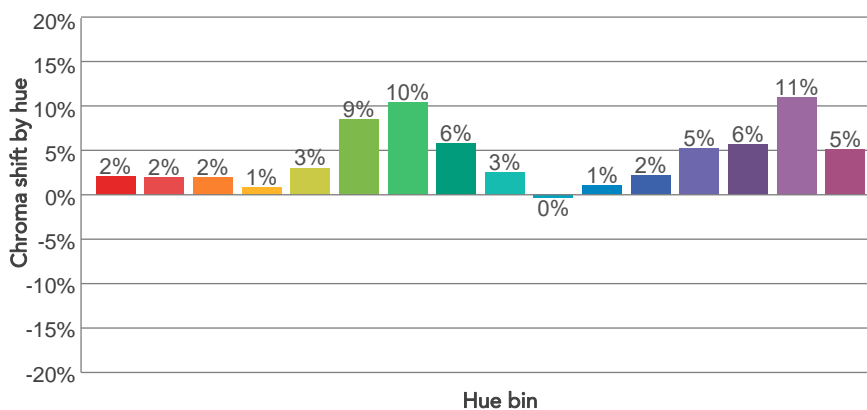
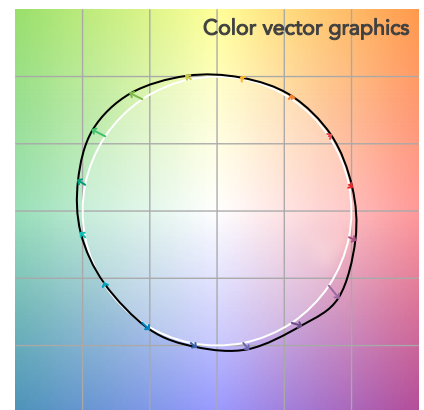
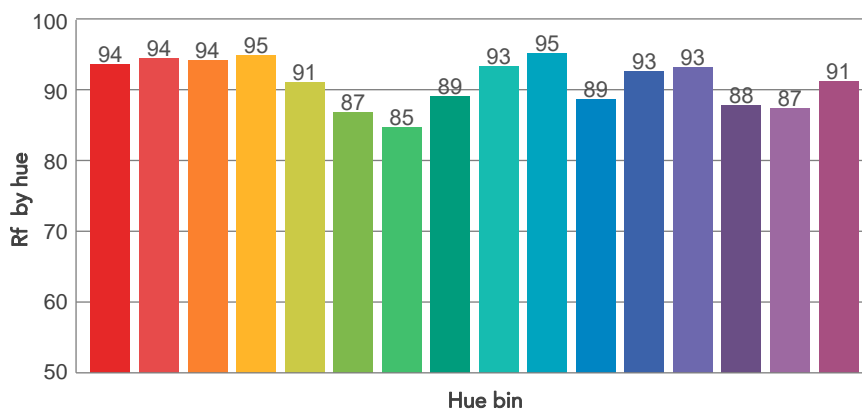
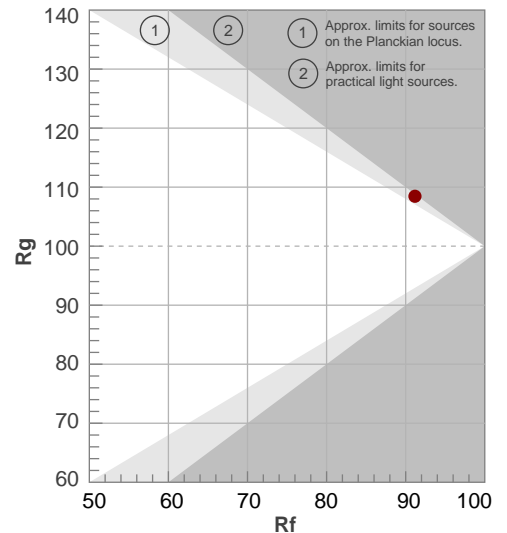
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 6009 K | 90,7 | 87,8 | 91,2 | 108,5 | 94,0 | 82 | 0,322 | 0,332 | -0,0060 |

TM30 DETAILS

Rf 91,2
Fidelity index Rf

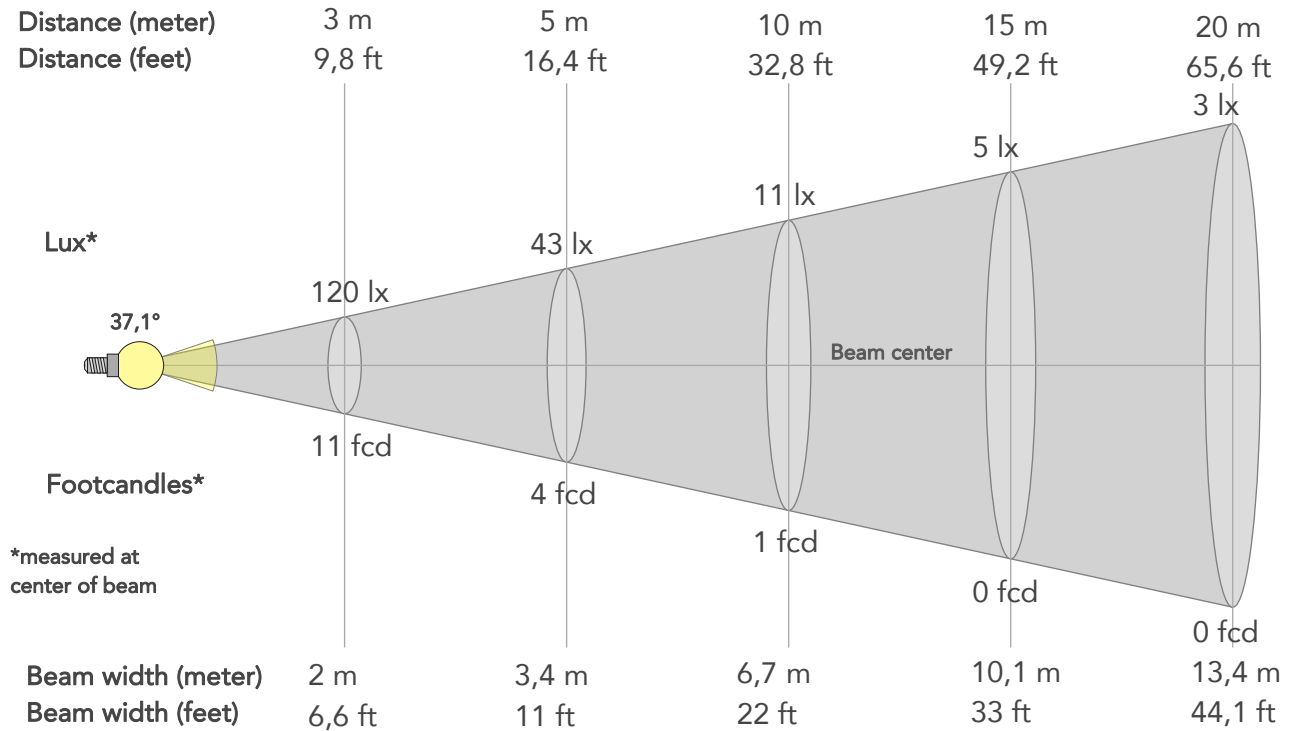
Rg 108,5
Gammut index

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 94 | 2% | -2% |
| 2 | 94 | 2% | 0% |
| 3 | 94 | 2% | 2% |
| 4 | 95 | 1% | 2% |
| 5 | 91 | 3% | 3% |
| 6 | 87 | 9% | 5% |
| 7 | 85 | 10% | 1% |
| 8 | 89 | 6% | -2% |
| 9 | 93 | 3% | -4% |
| 10 | 95 | 0% | -2% |
| 11 | 89 | 1% | 7% |
| 12 | 93 | 2% | 4% |
| 13 | 93 | 5% | 3% |
| 14 | 88 | 6% | 5% |
| 15 | 87 | 11% | -3% |
| 16 | 91 | 5% | -1% |



BEAM DETAILS

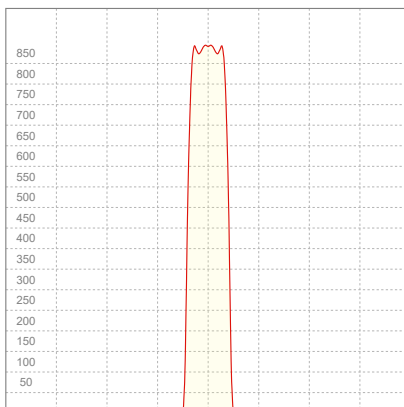
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 37,1° | 42° | 44,1° | 100,0% | 100,0% |



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 | 1081lx | 270lx | 120lx | 68lx | 43lx | 19lx | 11lx | 5lx | 3lx | 2lx | 1lx | 1lx | 0lx |
| Footcand. | 100fcd | 25fcd | 11fcd | 6fcd | 4fcd | 2fcd | 1fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd | 0fcd |
| Beam wid. | 0,7m | 1,3m | 2m | 2,7m | 3,4m | 5m | 6,7m | 10,1m | 13,4m | 16,8m | 20,2m | 26,9m | 33,6m |
| Beam wid. | 2,2ft | 4,4ft | 6,6ft | 8,8ft | 11ft | 16,5ft | 22ft | 33ft | 44,1ft | 55,1ft | 66,1ft | 88,1ft | 110,2ft |

LINEAR DISTRIBUTION DIAGRAM

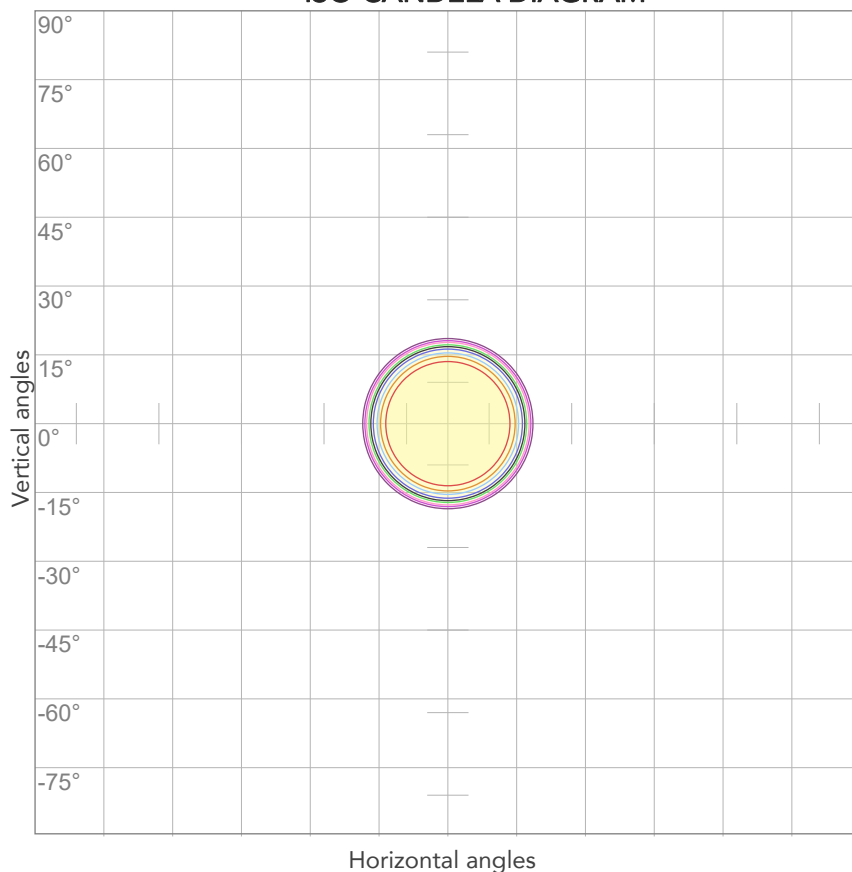


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 223V | 0,129A | 26,7W | 0,93 | 13lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



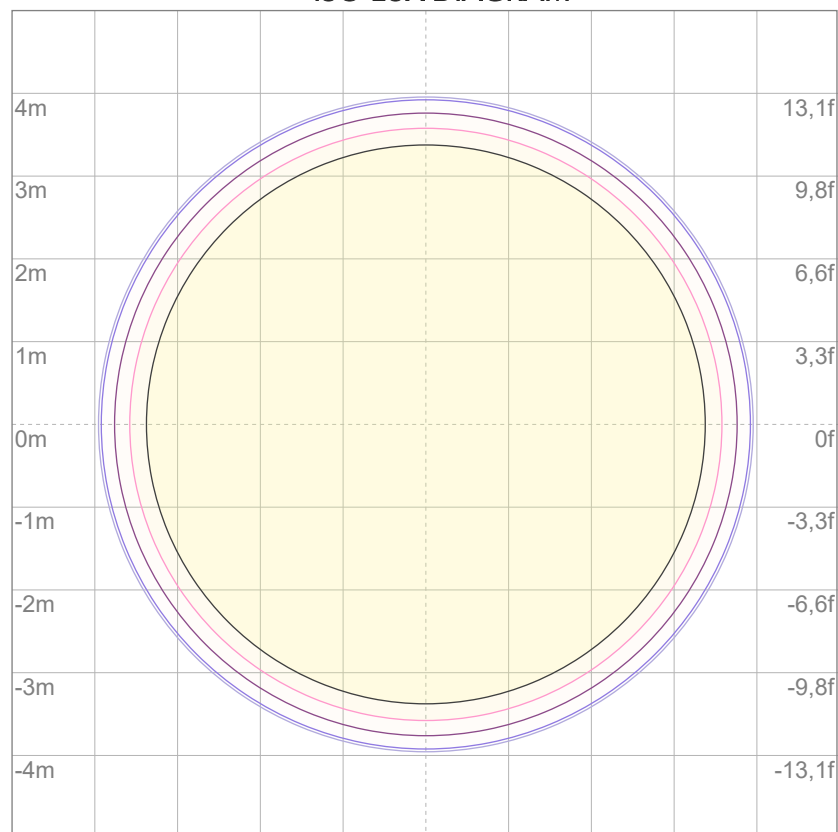
| | |
|-----|--------|
| 10% | 108 cd |
| 20% | 216 cd |
| 30% | 324 cd |
| 40% | 432 cd |
| 50% | 540 cd |
| 60% | 648 cd |
| 70% | 757 cd |
| 80% | 865 cd |

Conditions:

Number of c-planes: 2

Candela at center: 1081 cd

ISO LUX DIAGRAM



| | |
|-----|----------|
| 3% | 0,324 lx |
| 5% | 0,540 lx |
| 10% | 1,08 lx |
| 30% | 3,24 lx |
| 50% | 5,40 lx |

Conditions:

Number of c-planes: 2

Lux at center: 10,8 lx

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



Total lumen output:

376 lm

Peak candela output:

5106 cd

Light quality:

CRI: 90,7

Color temperature:

6028 K

PRODUCT NAME:

ECLDISPLAYFC

MEASURAMENT CONDITIONS:

Beam angle:

Profile 20-40 Min Zoom

Target:

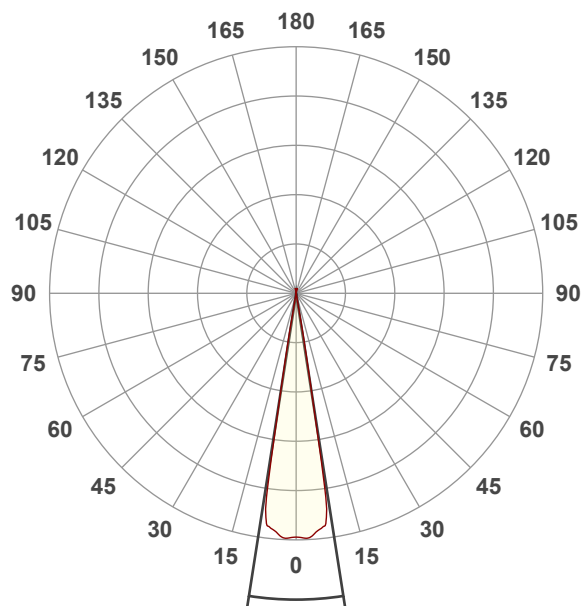
6000K

Operator:

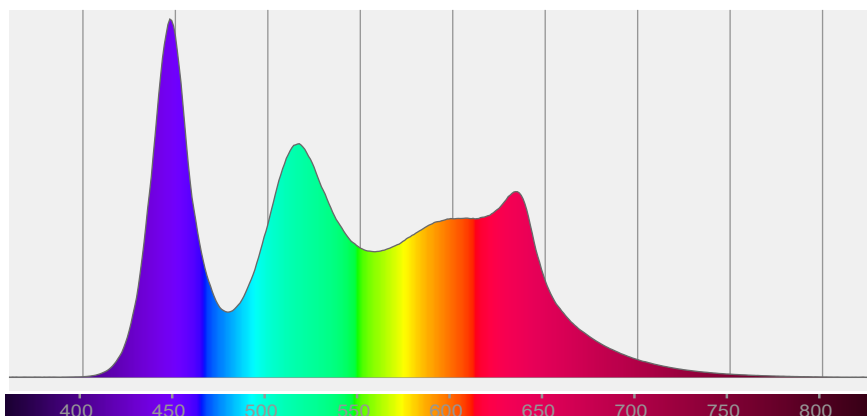
Paolo Carvone

Date and time:

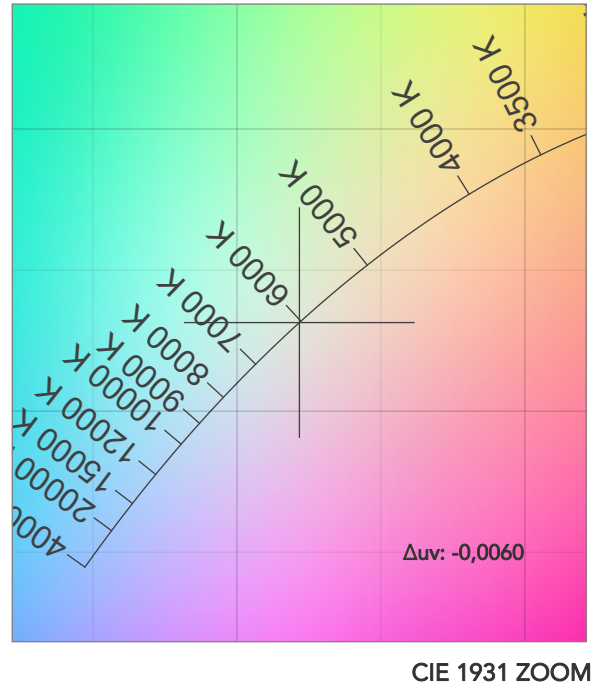
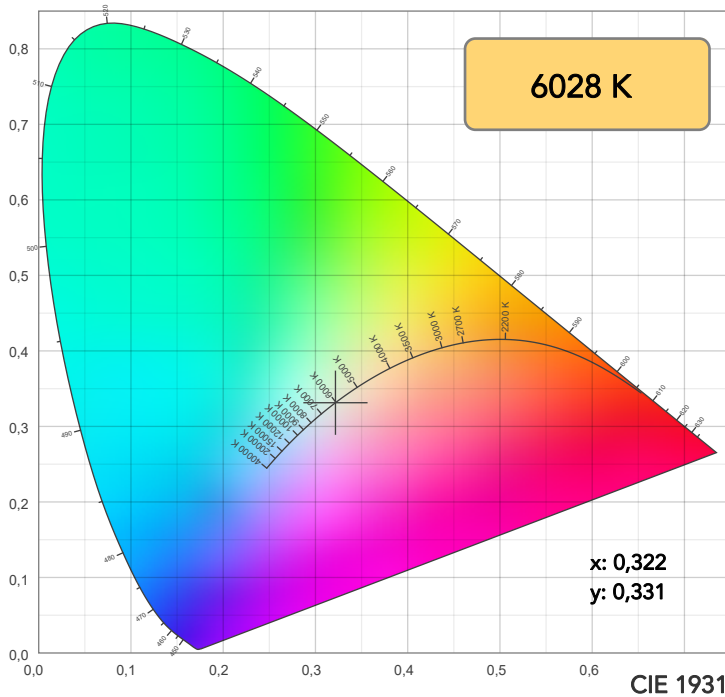
14/01/2021 11:26:49



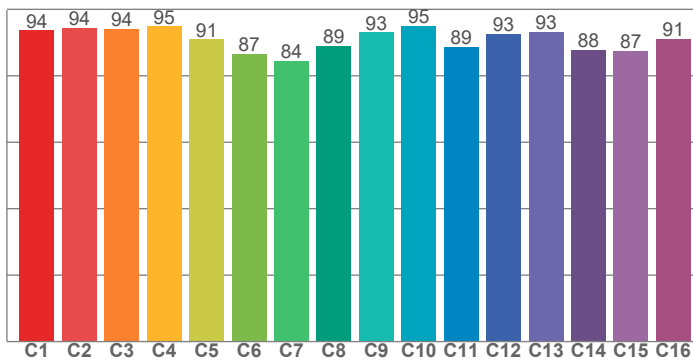
Spectra



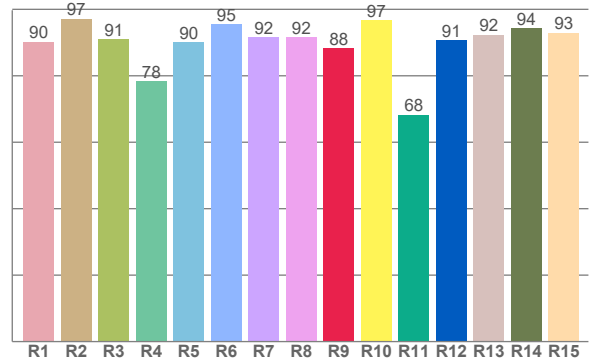
COLOR DETAILS



TM30: 91,1



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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 90,3 | 97,2 | 91,0 | 78,4 | 90,2 | 95,4 | 91,7 | 91,6 | 88,3 | 96,7 | 68,3 | 90,8 | 92,4 | 94,3 | 93,0 |

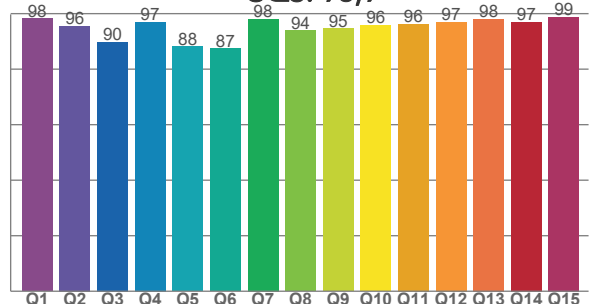
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93,6 | 94,4 | 94,1 | 94,9 | 91,0 | 86,6 | 84,4 | 88,9 | 93,1 | 95,0 | 88,8 | 92,6 | 93,2 | 87,8 | 87,5 | 91,1 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 98,2 | 95,6 | 89,8 | 97,0 | 88,2 | 87,5 | 98,0 | 93,9 | 94,6 | 95,8 | 96,3 | 97,0 | 98,1 | 97,0 | 98,7 |

CQS: 93,9



COLOR PARAMETERS

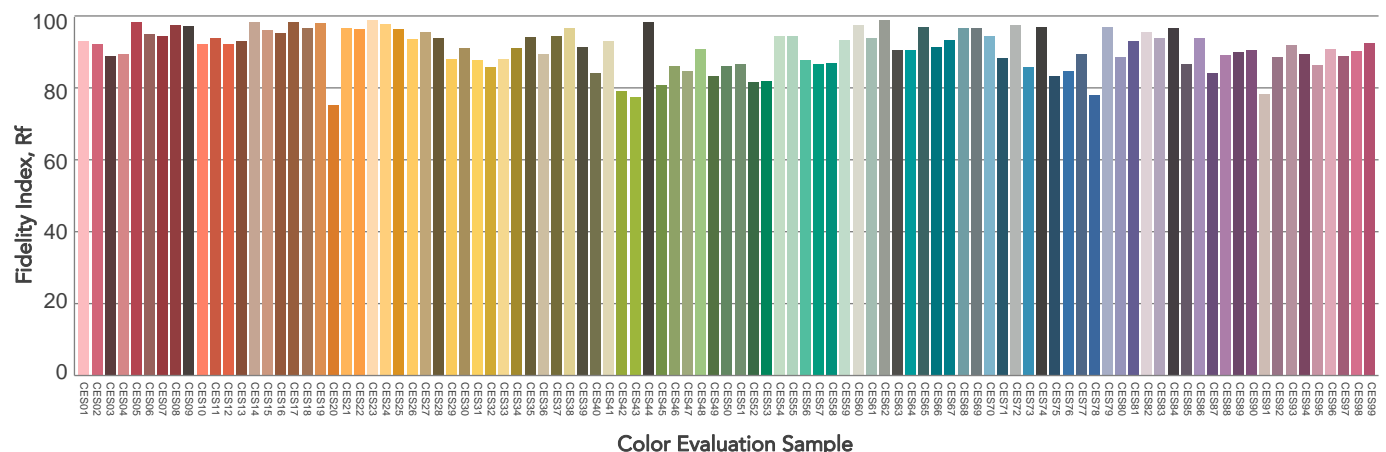
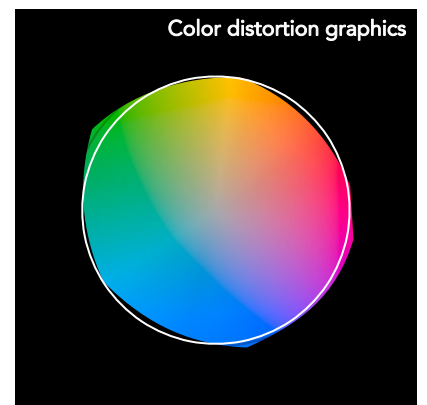
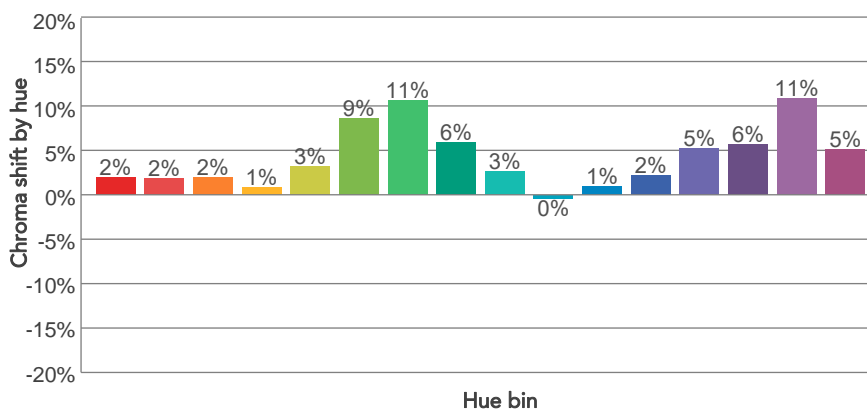
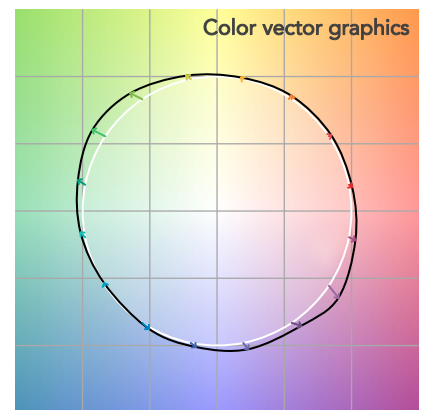
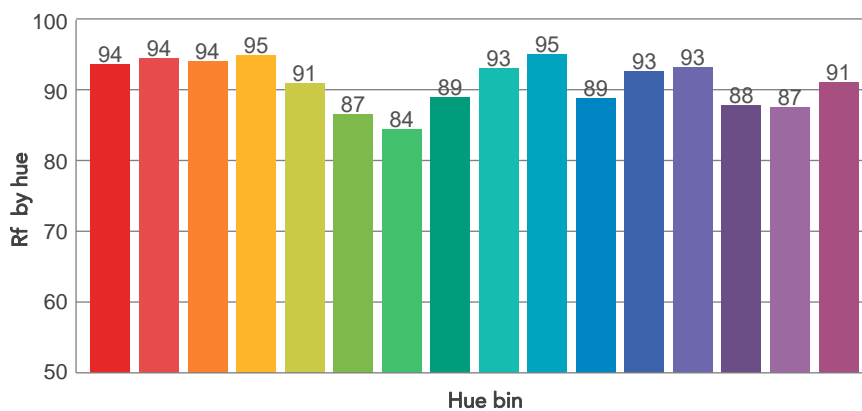
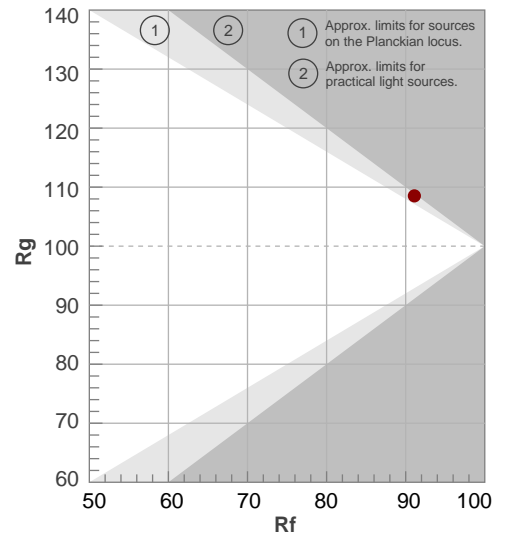
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Television lighting index | Color coordinate cie 1931 | Color coordinate cie 1931 | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | TLCI | x | y | Δuv |
| 6028 K | 90,7 | 88,3 | 91,1 | 108,5 | 93,9 | 81 | 0,322 | 0,331 | -0,0060 |

TM30 DETAILS

Rf 91,1
Fidelity index Rf

Rg 108,5
Gammut index

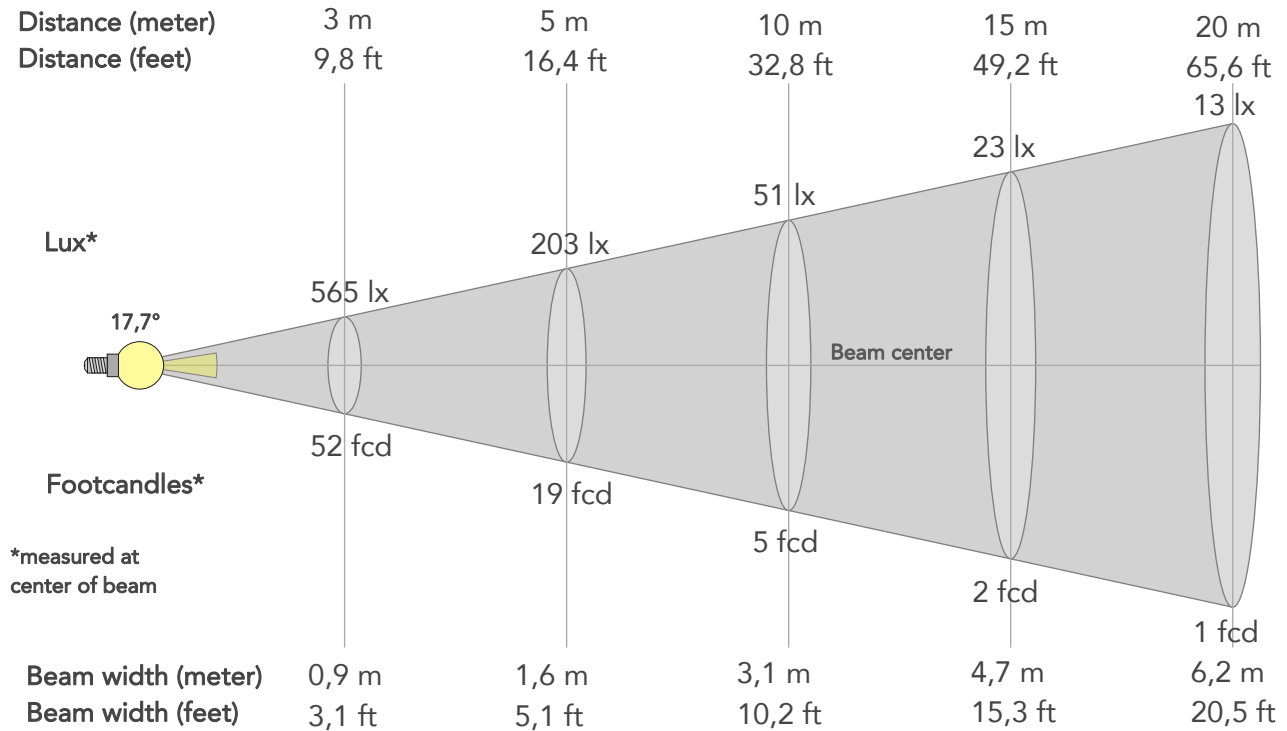
| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|-----|
| | | Chroma | Hue |
| 1 | 94 | 2% | -2% |
| 2 | 94 | 2% | 0% |
| 3 | 94 | 2% | 2% |
| 4 | 95 | 1% | 2% |
| 5 | 91 | 3% | 3% |
| 6 | 87 | 9% | 5% |
| 7 | 84 | 11% | 1% |
| 8 | 89 | 6% | -2% |
| 9 | 93 | 3% | -4% |
| 10 | 95 | 0% | -2% |
| 11 | 89 | 1% | 7% |
| 12 | 93 | 2% | 4% |
| 13 | 93 | 5% | 3% |
| 14 | 88 | 6% | 5% |
| 15 | 87 | 11% | -3% |
| 16 | 91 | 5% | -1% |



BEAM DETAILS



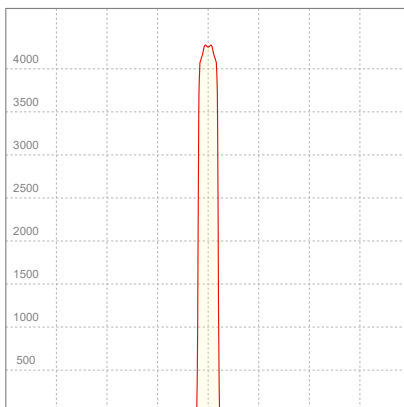
| Beam angle 50% | Field angle 10% | Cut off angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|--------------------|------------------------------|-----------------------------|
| 17,7° | 19,6° | 20,2° | 100,0% | 100,0% |



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 | 5081lx | 1270lx | 565lx | 318lx | 203lx | 90lx | 51lx | 23lx | 13lx | 8lx | 6lx | 3lx | 2lx |
| Footcand. | 472fcd | 118fcd | 52fcd | 30fcd | 19fcd | 8fcd | 5fcd | 2fcd | 1fcd | 1fcd | 1fcd | 0fcd | 0fcd |
| Beam wid. | 0,3m | 0,6m | 0,9m | 1,2m | 1,6m | 2,3m | 3,1m | 4,7m | 6,2m | 7,8m | 9,4m | 12,5m | 15,6m |
| Beam wid. | 1ft | 2,1ft | 3,1ft | 4,1ft | 5,1ft | 7,7ft | 10,2ft | 15,3ft | 20,5ft | 25,6ft | 30,7ft | 40,9ft | 51,2ft |

LINEAR DISTRIBUTION DIAGRAM

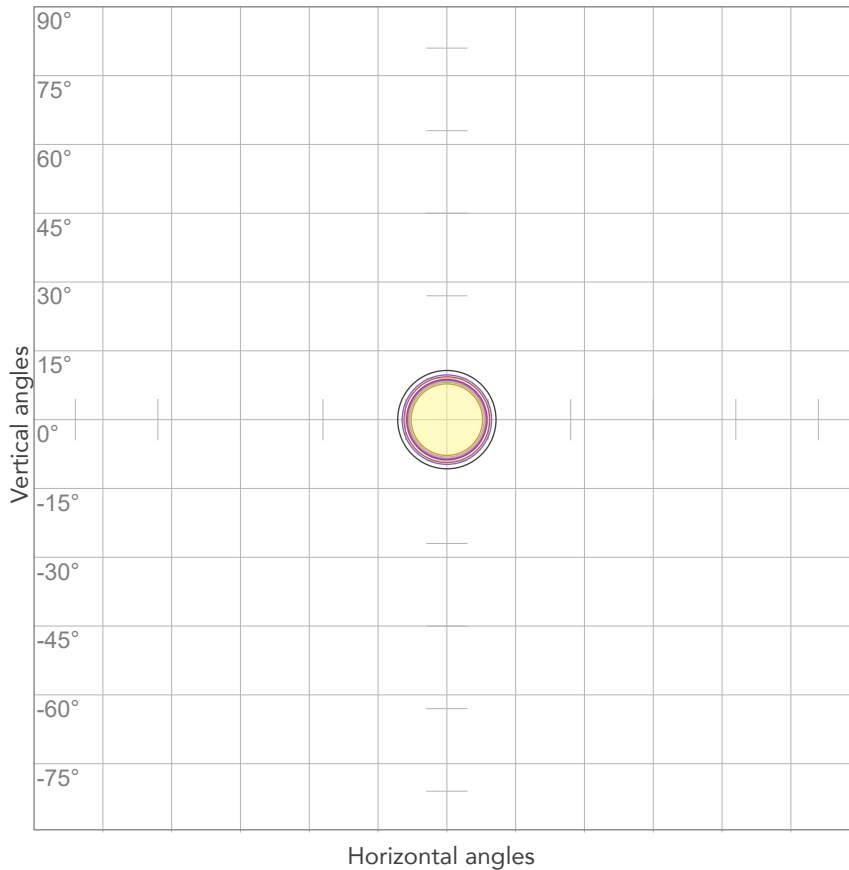


ELECTRICAL SPECIFICATIONS

| Input voltage | Input current | Input power | Power FC | Effeciency |
|---------------|---------------|-------------|----------|------------|
| 224V | 0,130A | 26,8W | 0,92 | 14lm/W |

ISO DIAGRAMS

ISO CANDELA DIAGRAM



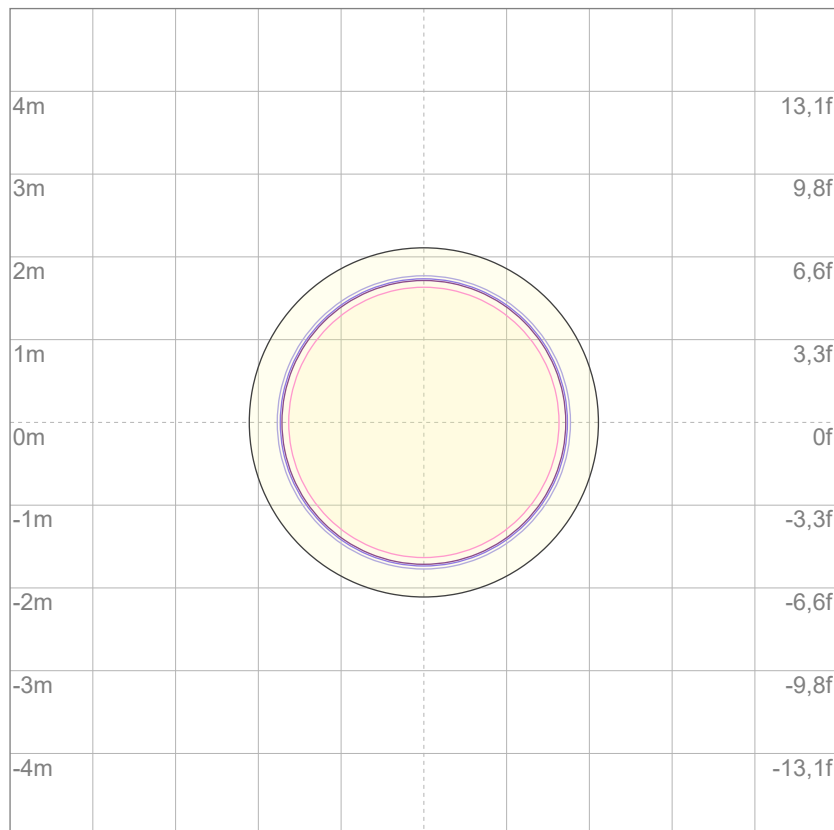
| | |
|-----|---------|
| 10% | 508 cd |
| 20% | 1016 cd |
| 30% | 1524 cd |
| 40% | 2032 cd |
| 50% | 2541 cd |
| 60% | 3049 cd |
| 70% | 3557 cd |
| 80% | 4065 cd |

Conditions:

Number of c-planes: 2

Candela at center: 5081 cd

ISO LUX DIAGRAM



| | |
|-----|---------|
| 3% | 1,52 lx |
| 5% | 2,54 lx |
| 10% | 5,08 lx |
| 30% | 15,2 lx |
| 50% | 25,4 lx |

Conditions:

Number of c-planes: 2

Lux at center: 50,8 lx

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