

Light efficiency:

159 Lumen/Watt

Light quality:

CRI: 96.9

Color temperature:

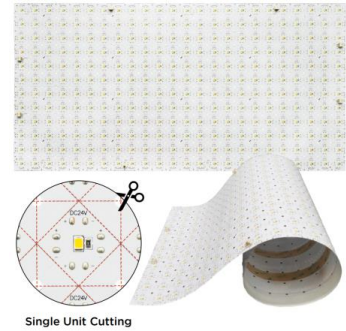
2997 K

Output: 2395 lm

Peak: 829 cd

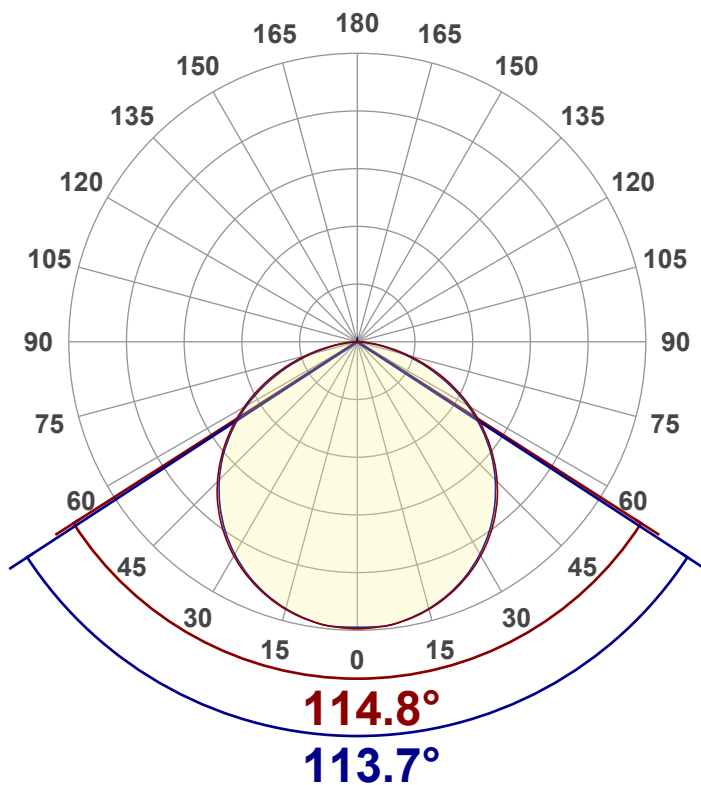
Power: 15.0 W

PF: 1.0



RoHS

IP20



Tracking number: [n/a](#)

Product name:

FBL242048RGBW-W

Item number:

Date and time:

11/14/2025 9:58:33 AM

Operator:

BOB

Description:

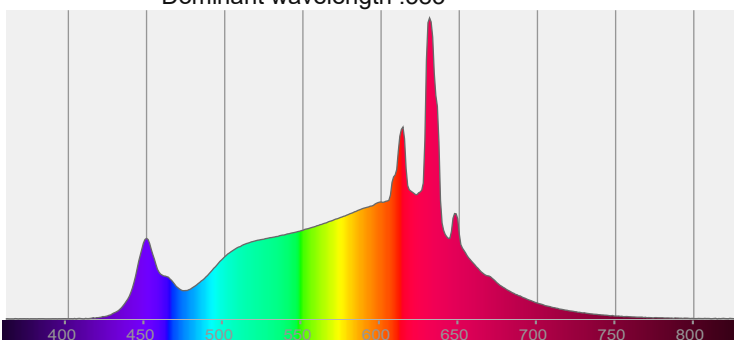
**SIZE:609.6*304.8MM
RGBW WHITE ONLY**



CIE 1931
x: 0.438
y: 0.406

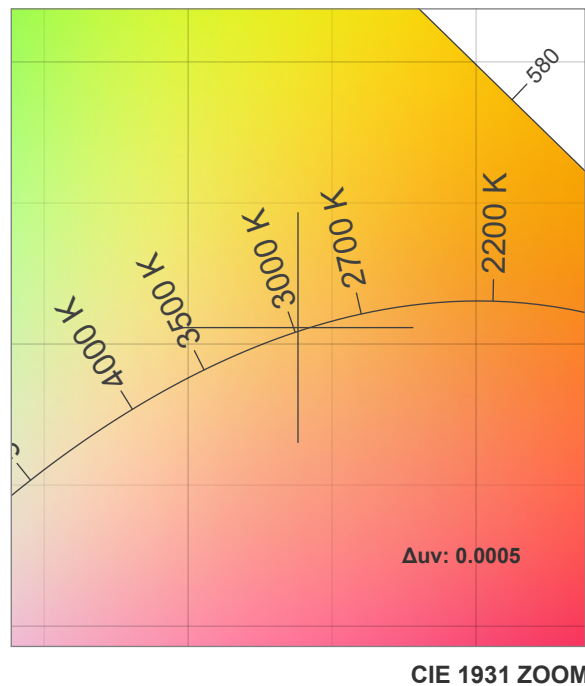
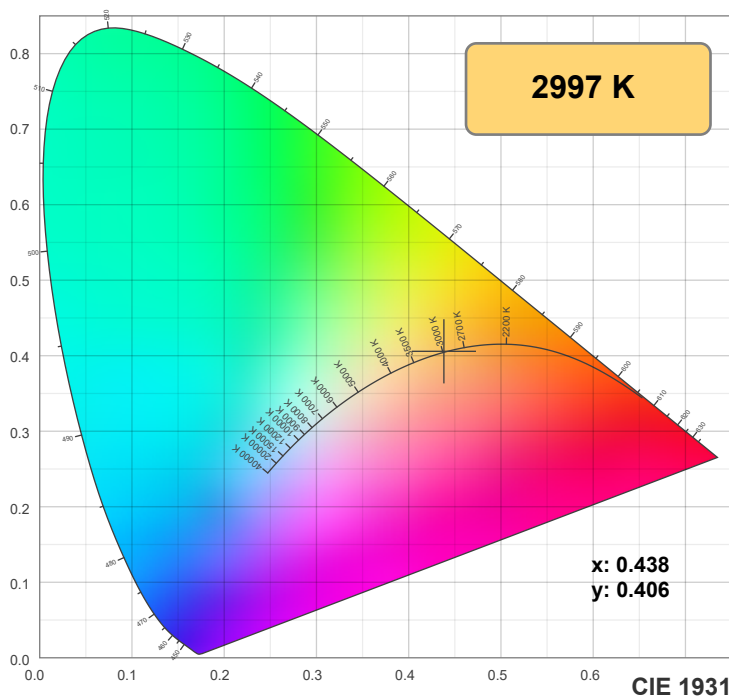
Spectra: Peak wavelength :631

Dominant wavelength :583

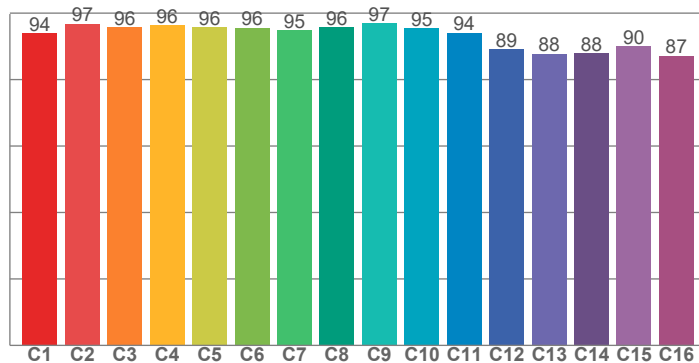


Power

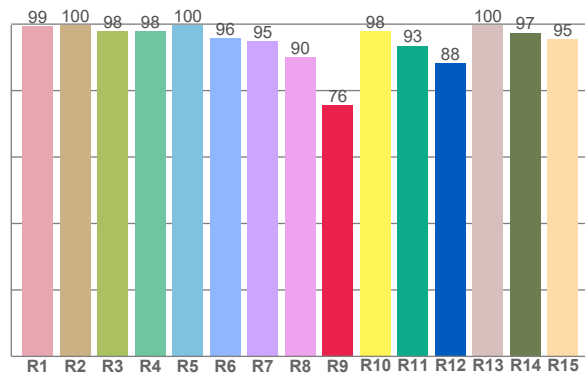
Voltage: 24.0 V
Current: 0.627 A
Frequency: 0 Hz



TM-30: 93.9



CRI: 96.9 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 99.3 | 99.7 | 97.9 | 97.8 | 99.7 | 95.7 | 94.9 | 90.1 | 75.5 | 97.9 | 93.5 | 88.2 | 99.6 | 97.4 | 95.4 |

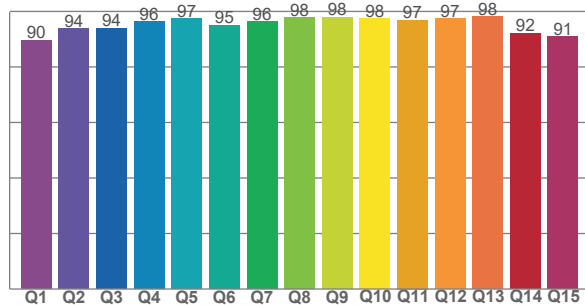
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94.0 | 96.8 | 95.7 | 96.4 | 95.8 | 95.5 | 94.9 | 95.8 | 97.0 | 95.5 | 94.0 | 89.1 | 87.8 | 87.8 | 90.0 | 87.1 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 89.6 | 93.8 | 94.0 | 96.3 | 97.3 | 95.1 | 96.2 | 97.7 | 98.0 | 97.5 | 96.9 | 97.3 | 98.2 | 92.2 | 90.9 |

CQS: 94.4



Color parameters

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 2997 K | 96.9 | 75.5 | 93.9 | 100.4 | 94.4 | 0.438 | 0.406 | 0.251 | 0.348 | 0.0005 |

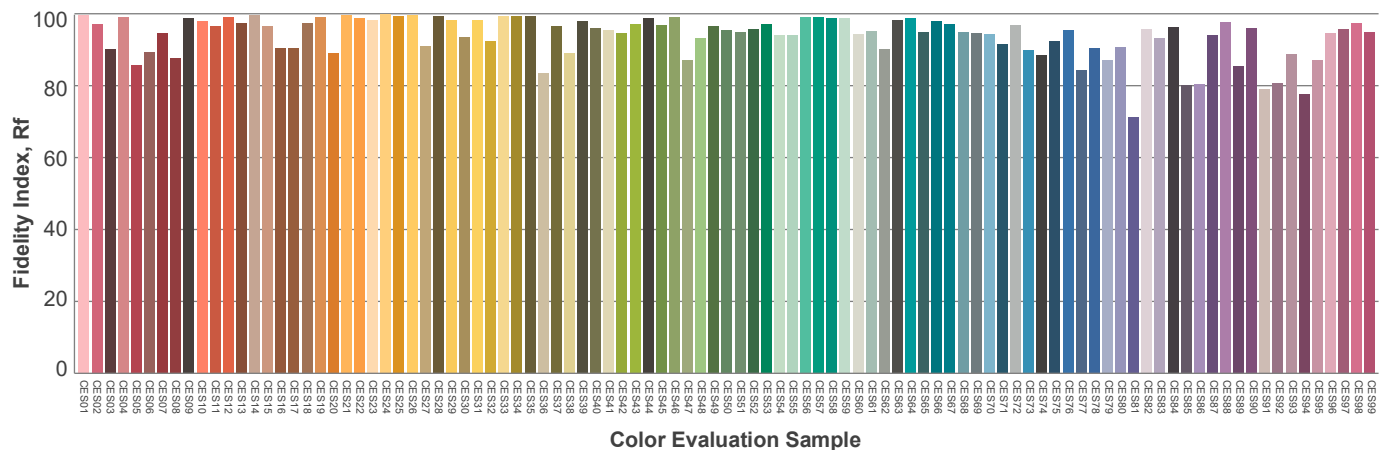
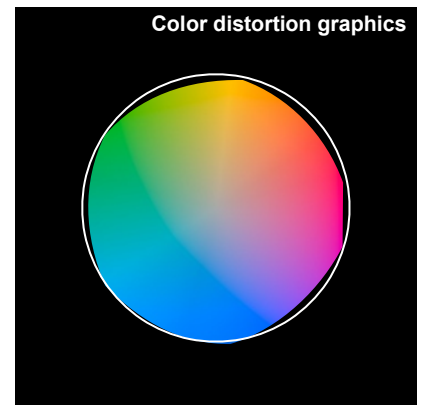
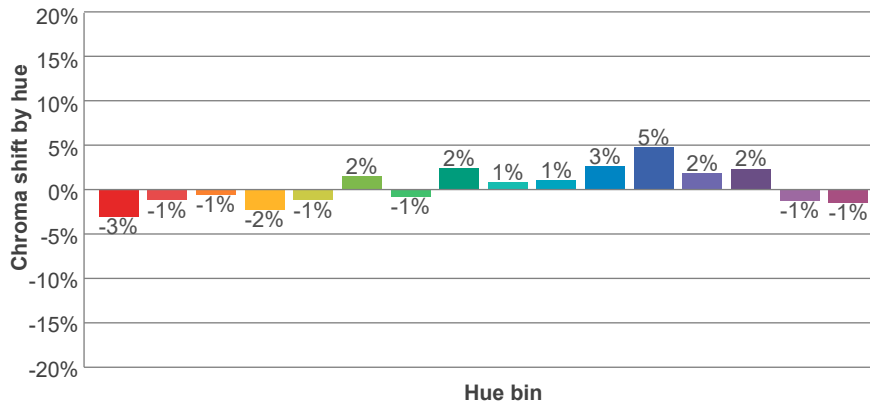
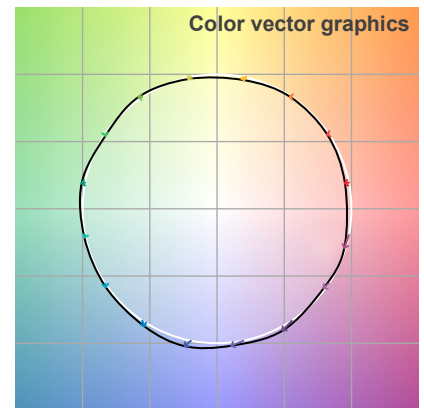
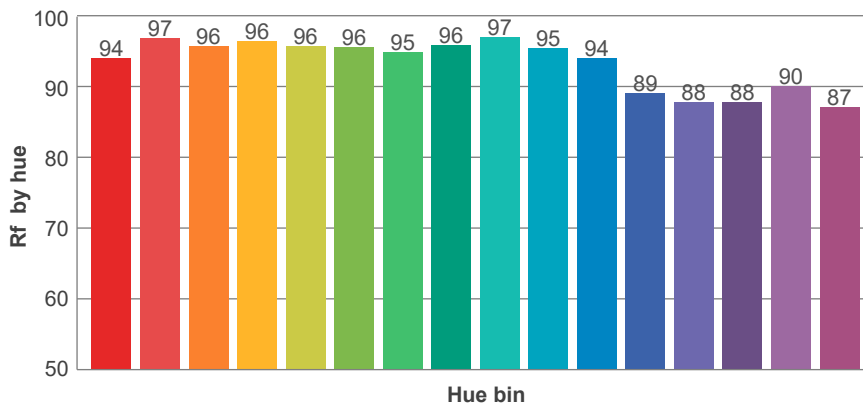
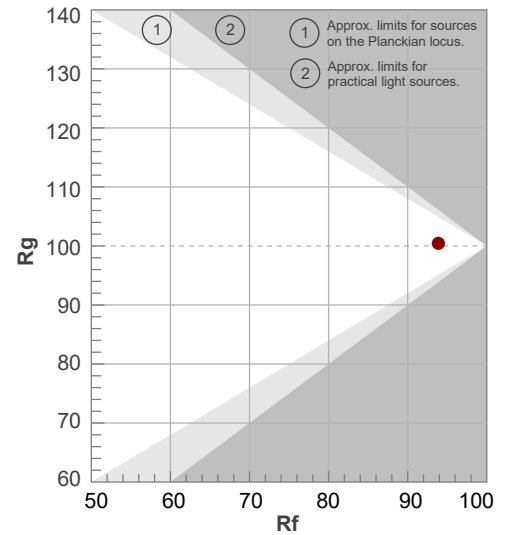
Rf 93.9

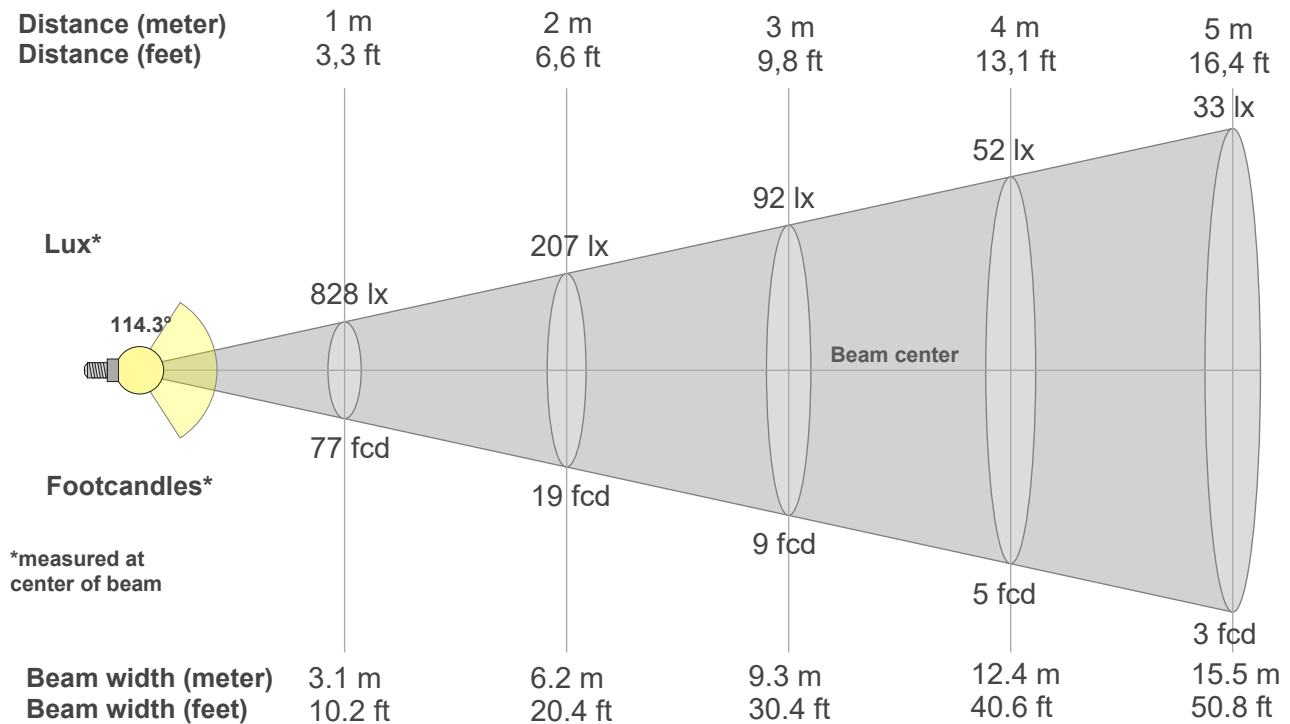
Fidelity index Rf

Rg 100.4

Gamut index Rg

| Hue Bin | R _f | Shifts (%) | |
|---------|----------------|------------|------|
| | | Chroma | Hue |
| 1 | 94 | -3% | 0% |
| 2 | 97 | -1% | 0% |
| 3 | 96 | -1% | 1% |
| 4 | 96 | -2% | -1% |
| 5 | 96 | -1% | 2% |
| 6 | 96 | 2% | 2% |
| 7 | 95 | -1% | 1% |
| 8 | 96 | 2% | 1% |
| 9 | 97 | 1% | 2% |
| 10 | 95 | 1% | 2% |
| 11 | 94 | 3% | 4% |
| 12 | 89 | 5% | -4% |
| 13 | 88 | 2% | -9% |
| 14 | 88 | 2% | -10% |
| 15 | 90 | -1% | -5% |
| 16 | 87 | -1% | -10% |





Beam intensities from 1-20m

| 1m | 2m | 3m | 4m | 5m | 6m | 7m | 8m | 9m | 10m | 11m | 12m | 13m | 14m | 15m | 16m | 17m | 18m | 19m | 20m |
|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 3.3ft | 6.6ft | 9.8ft | 13.1ft | 16.4ft | 19.7ft | 23ft | 26.2ft | 29.5ft | 32.8ft | 36.1ft | 39.4ft | 42.7ft | 45.9ft | 49.2ft | 52.5ft | 55.8ft | 59.1ft | 62.3ft | 65.6ft |
| 828lx | 207lx | 92lx | 52lx | 33lx | 23lx | 17lx | 13lx | 10lx | 8lx | 7lx | 6lx | 5lx | 4lx | 4lx | 3lx | 3lx | 3lx | 2lx | 2lx |
| 76.9fcd | 19.2fcd | 8.5fcd | 4.8fcd | 3.1fcd | 2.1fcd | 1.6fcd | 1.2fcd | 0.9fcd | 0.8fcd | 0.6fcd | 0.5fcd | 0.5fcd | 0.4fcd | 0.3fcd | 0.3fcd | 0.3fcd | 0.2fcd | 0.2fcd | 0.2fcd |

Intensities in 0° c-plane

| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 828 | 826 | 816 | 800 | 777 | 749 | 714 | 672 | 625 | 571 | 511 | 447 | 378 | 305 | 230 | 155 | 86 | 33 | 7 | 1 |
| 100% | 100% | 99% | 97% | 94% | 90% | 86% | 81% | 75% | 69% | 62% | 54% | 46% | 37% | 28% | 19% | 10% | 4% | 1% | 0% |

Intensities in 90° c-plane

| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 828 | 826 | 816 | 799 | 775 | 745 | 709 | 666 | 618 | 564 | 505 | 439 | 369 | 293 | 216 | 141 | 73 | 23 | 3 | 1 |
| 100% | 100% | 98% | 96% | 94% | 90% | 86% | 80% | 75% | 68% | 61% | 53% | 45% | 35% | 26% | 17% | 9% | 3% | 0% | 0% |

Intensities in 180° c-plane

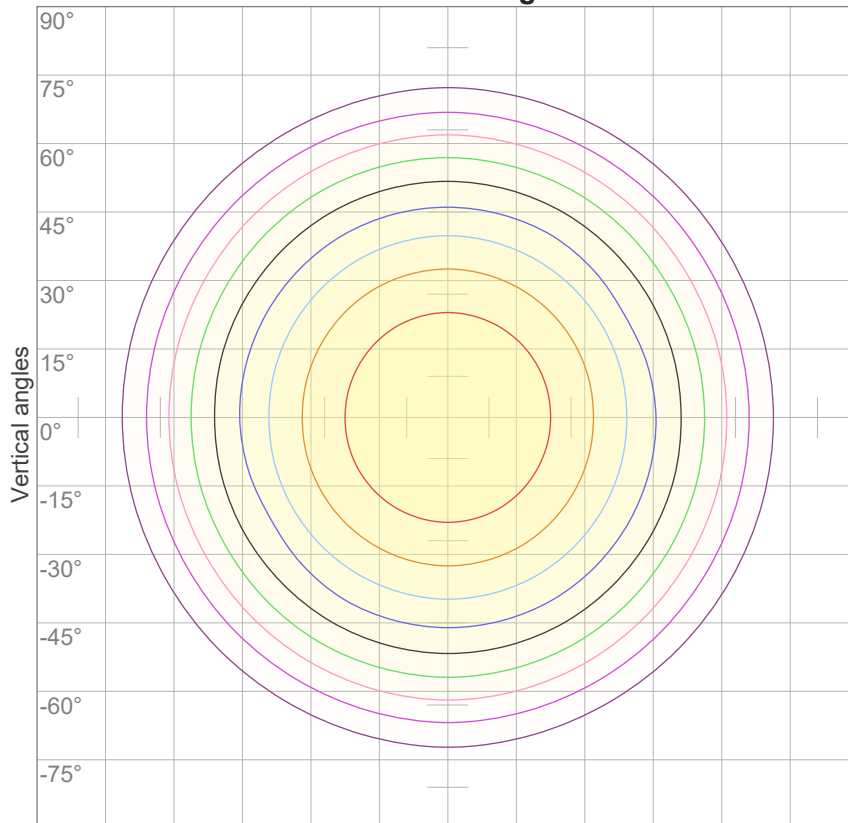
| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 828 | 826 | 816 | 800 | 777 | 749 | 714 | 672 | 625 | 571 | 511 | 447 | 378 | 305 | 230 | 155 | 86 | 33 | 7 | 1 |
| 100% | 100% | 99% | 97% | 94% | 90% | 86% | 81% | 75% | 69% | 62% | 54% | 46% | 37% | 28% | 19% | 10% | 4% | 1% | 0% |

Intensities in 270° c-plane

| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 828 | 826 | 816 | 799 | 775 | 745 | 709 | 666 | 618 | 564 | 505 | 439 | 369 | 293 | 216 | 141 | 73 | 23 | 3 | 1 |
| 100% | 100% | 98% | 96% | 94% | 90% | 86% | 80% | 75% | 68% | 61% | 53% | 45% | 35% | 26% | 17% | 9% | 3% | 0% | 0% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 114.3° | 159.1° | 171.8° | 79.3% | 53.8% |

iso-candela diagram



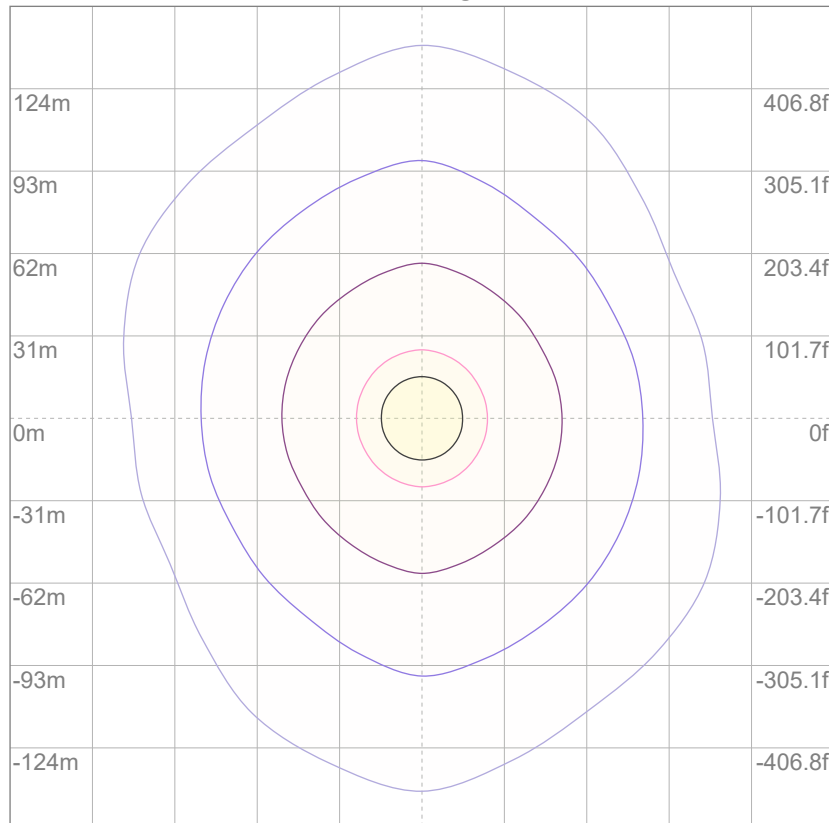
| | |
|-----|--------|
| 10% | 83 cd |
| 20% | 166 cd |
| 30% | 248 cd |
| 40% | 331 cd |
| 50% | 414 cd |
| 60% | 497 cd |
| 70% | 580 cd |
| 80% | 662 cd |
| 90% | 745 cd |

Conditions:

Number of c-planes: 12

Candela at center: 828 cd

iso-lux diagram



| | |
|-----|----------|
| 3% | 0.248 lx |
| 5% | 0.414 lx |
| 10% | 0.828 lx |
| 30% | 2.48 lx |
| 50% | 4.14 lx |

Conditions:

Number of c-planes: 12

Lux at center: 8.28 lx

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

Glare evaluation according to UGR

| | | | | | | | | | | |
|--|---|-----|-----|-----|-----|---|-----|-----|-----|-----|
| p Ceiling | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| p Walls | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| p Floor | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Room size X Y | Viewing direction at right angles to lamp axis | | | | | Viewing direction parallel to lamp axis | | | | |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Variation of the observer position for the luminaire distance S | | | | | | | | | | |
| n/a | n/a | | | | | n/a | | | | |
| n/a | n/a | | | | | n/a | | | | |
| n/a | n/a | | | | | n/a | | | | |
| CIE 117-1995. Corrected glare indices referring to 2395 lm total luminous flux | | | | | | | | | | |

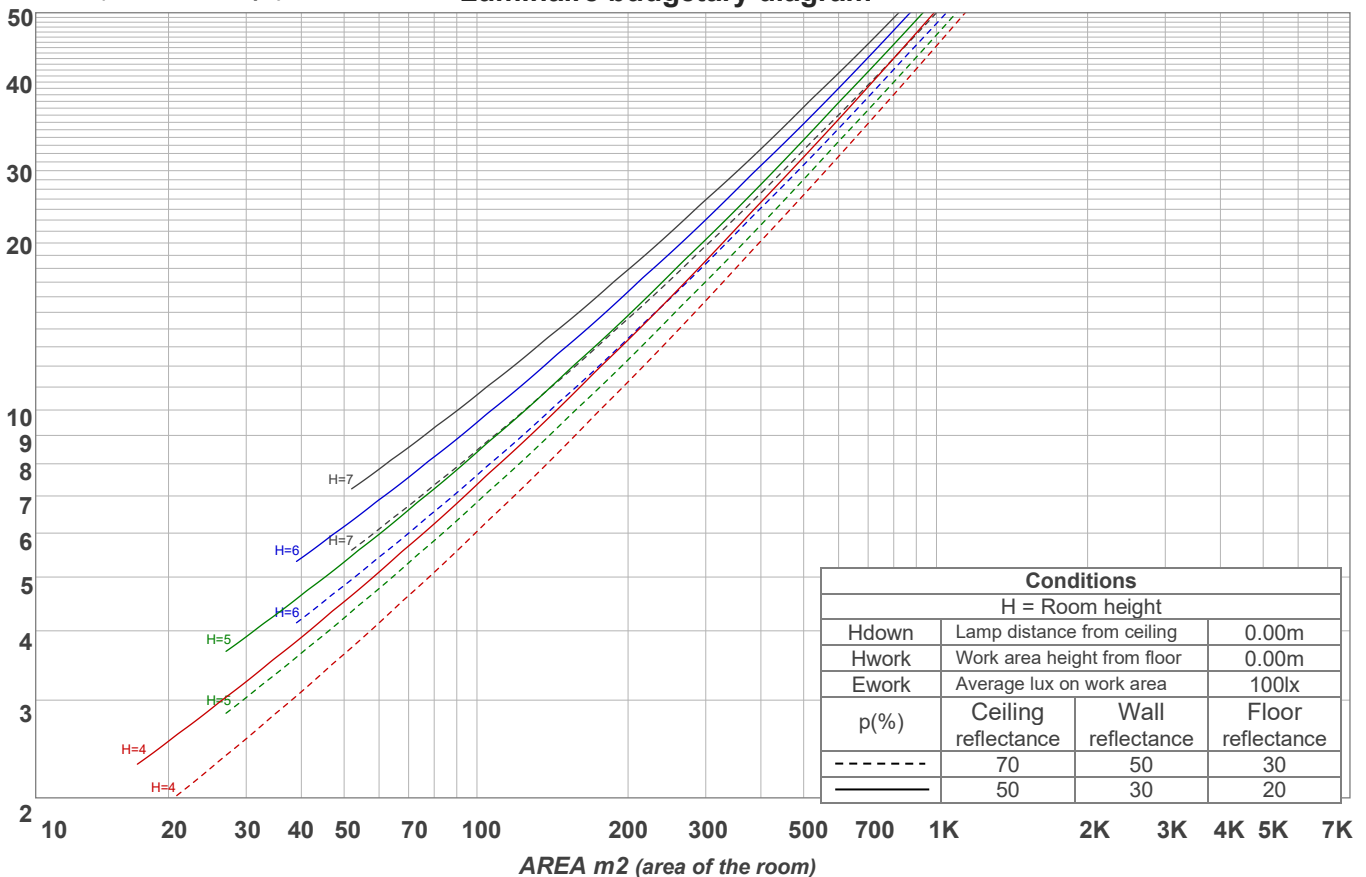
UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

Coefficients of Utilization

| Ceiling reflectance | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Wall reflectance | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| Floor reflectance | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 0 |
| RCR | (RCR: Room Cavity Ratio) Room Values are expressed as percentage of Lumens delivered to the task surface | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 99 |
| 1 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 84 | 78 | 96 | 89 | 83 | 77 | 85 | 80 | 75 | 82 | 77 | 74 | 79 | 75 | 72 | 70 |
| 3 | 90 | 80 | 71 | 65 | 88 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 67 | 62 | 70 | 65 | 61 | 59 |
| 4 | 82 | 70 | 62 | 55 | 80 | 69 | 61 | 55 | 67 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 43 |
| 6 | 70 | 57 | 48 | 41 | 68 | 56 | 47 | 41 | 54 | 46 | 41 | 52 | 45 | 40 | 50 | 44 | 40 | 38 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 28 | 27 |
| 10 | 53 | 40 | 32 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |

LAMPS (number of lamps)

Luminaire budgetary diagram



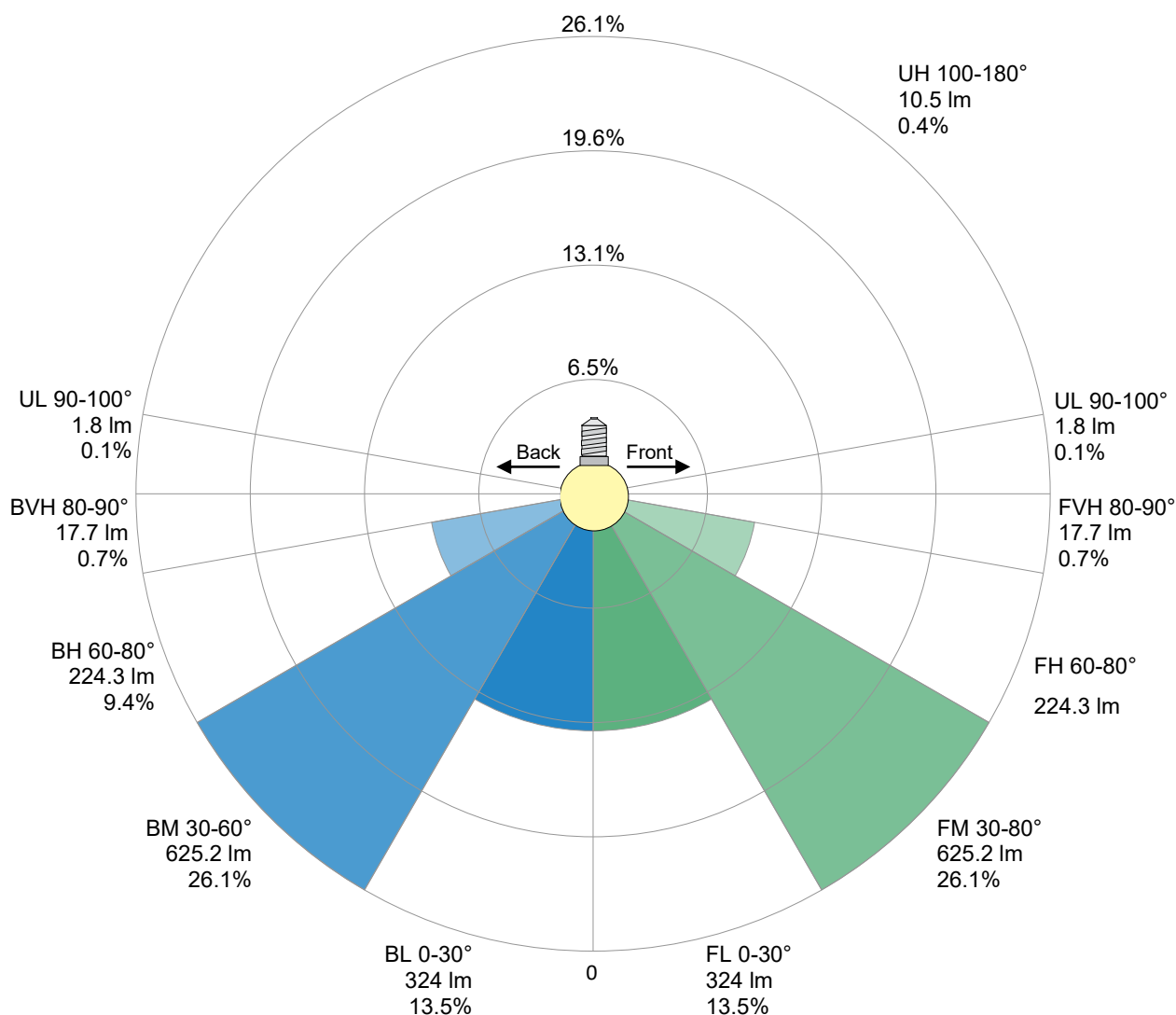
Zonal Lumen Summary

| 0°-10° | 10°-20° | 20°-30° | 30°-40° | 40°-50° | 50°-60° | 60°-70° | 70°-80° | 80°-90° |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 78.5 lm | 226 lm | 344 lm | 419 lm | 437 lm | 395 lm | 295 lm | 154 lm | 34.5 lm |
| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 1.53 lm | 1.23 lm | 1.54 lm | 1.74 lm | 1.79 lm | 1.68 lm | 1.34 lm | 0.879 lm | 0.309 lm |

LCS table

| BUG rating: | B1 U1 G1 | |
|-------------------|----------|----------|
| Forward light | Lumens | Lumens % |
| Low(0-30): | 324 | 13.5% |
| Medium(30-60): | 625.2 | 26.1% |
| High(60-80): | 224.3 | 9.4% |
| Very high(80-90): | 17.7 | 0.7% |
| Back light | | |
| Low(0-30): | 324 | 13.5% |
| Medium(30-60): | 625.2 | 26.1% |
| High(60-80): | 224.3 | 9.4% |
| Very high(80-90): | 17.7 | 0.7% |
| Uplight | | |
| Low(90-100): | 1.8 | 0.1% |
| High(100-180): | 10.5 | 0.4% |

LCS graph



Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

| Flicker frequency: | | n/a Hz | |
|-----------------------|-------|---------------|-------|
| Flicker index: | n/a | JA8/10 40Hz | n/a % |
| Flicker percentage: | n/a % | JA8/10 90Hz | n/a % |
| SVM: (Visual flicker) | n/a | JA8/10 200Hz | n/a % |
| PstLM | n/a | JA8/10 400Hz | n/a % |
| Mp | n/a | JA8/10 1000Hz | n/a % |

Flicker conditions:

| | |
|--------------|--------------------|
| Sample rate: | n/a samples/second |
|--------------|--------------------|