

Light efficiency:



Output: 1117 lm

Light quality:

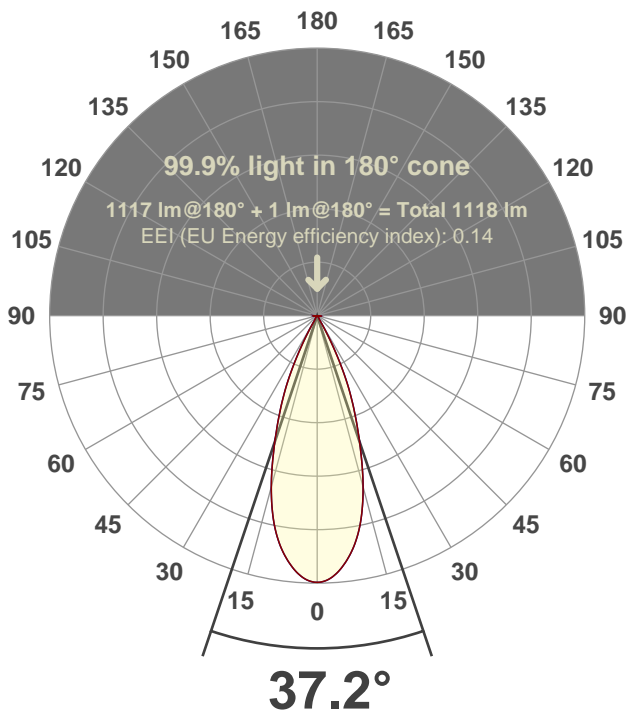


Peak: 2864 cd

Power: 14.5 W



Beam angle



Test number:

CR4D-R-DR-C14-30K-40 (GR-CZ20-FL-RD)

Luminaire Model:

Core 4" Round Deep Regress C14 30K 40 deg

Date and time:

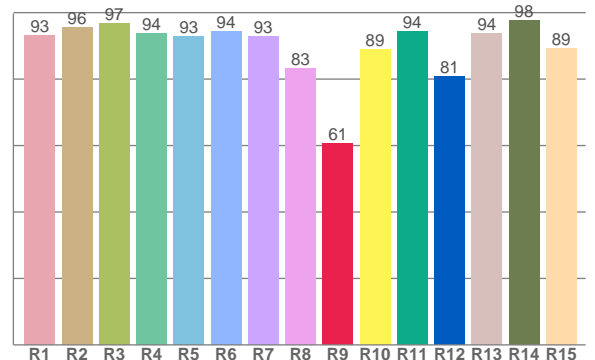
6/14/2017 11:54:40 AM

LUM: 1117

Spectra



CRI: 92.8 (R1-R8)



Color parameters

| | 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 |
|--|-----------------------|---------------|---------------------|---------------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| | CRI | CRI R9 | TM30 R _f | TM30 R _g | CQS | x | y | u | v | Δuv |
| | 92.8 | 60.5 | 91.9 | 100.2 | 91.0 | 0.428 | 0.400 | 0.247 | 0.346 | -0.0002 |

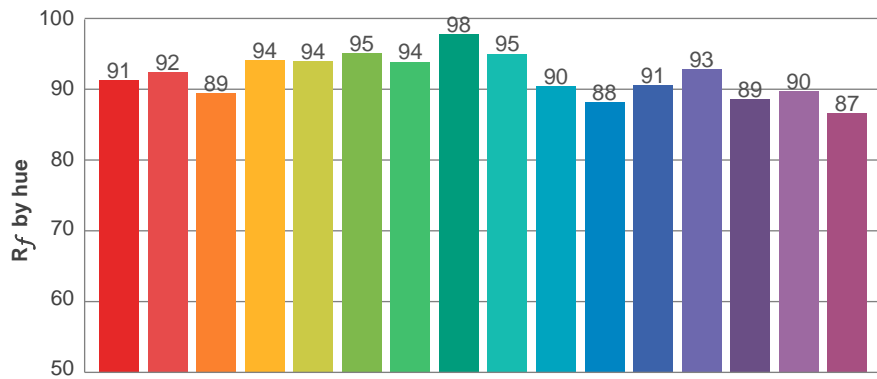
R_f 91.9

Fidelity index R_f

R_g 100.2

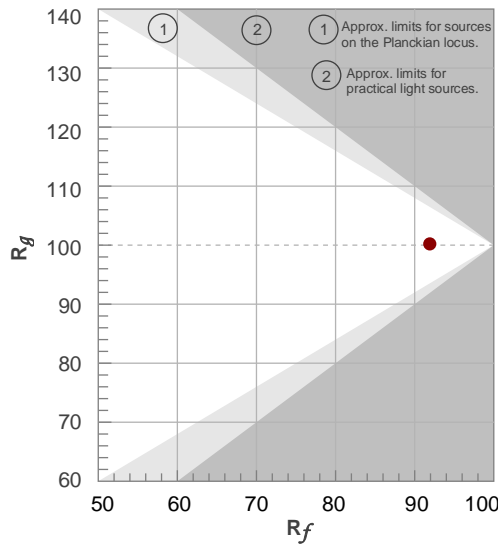
Gammut index R_g

TM30: 91.9

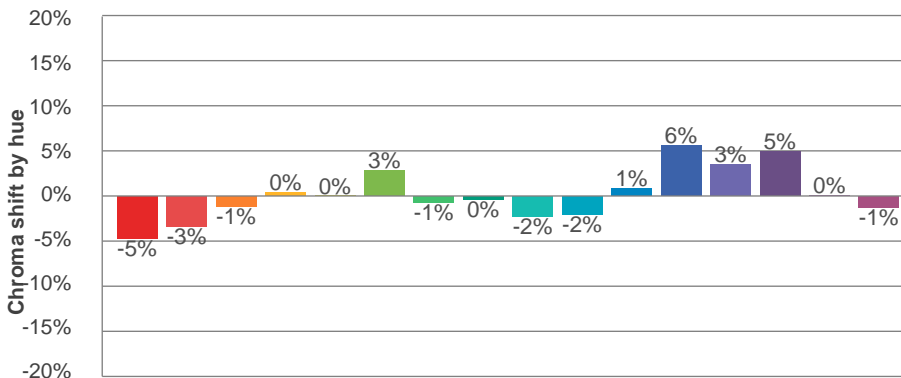
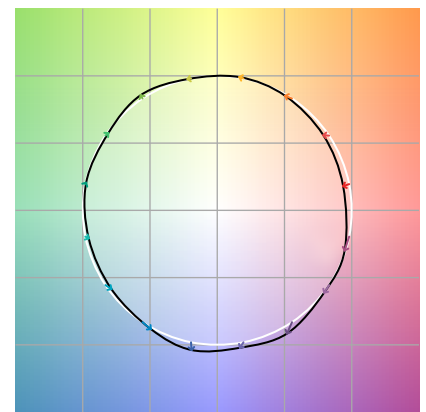


TM-30Color

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|------|
| | | Chroma | Hue |
| 1 | 91 | -5% | -1% |
| 2 | 92 | -3% | 3% |
| 3 | 89 | -1% | 5% |
| 4 | 94 | 0% | 3% |
| 5 | 94 | 0% | 3% |
| 6 | 95 | 3% | 0% |
| 7 | 94 | -1% | -3% |
| 8 | 98 | 0% | -1% |
| 9 | 95 | -2% | 2% |
| 10 | 90 | -2% | 5% |
| 11 | 88 | 1% | 8% |
| 12 | 91 | 6% | 2% |
| 13 | 93 | 3% | -3% |
| 14 | 89 | 5% | -8% |
| 15 | 90 | 0% | -7% |
| 16 | 87 | -1% | -11% |



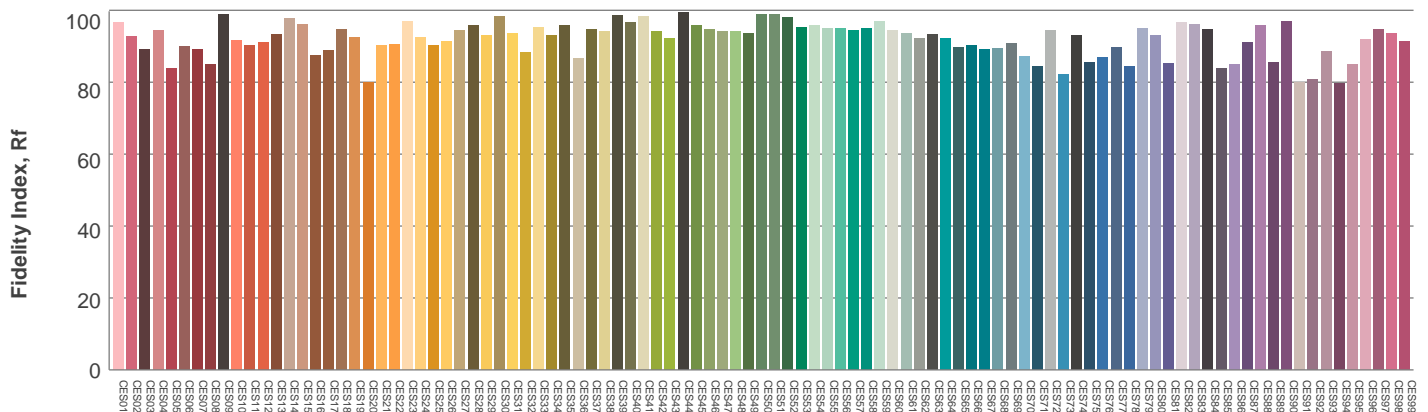
Color vector graphics



Color distortion

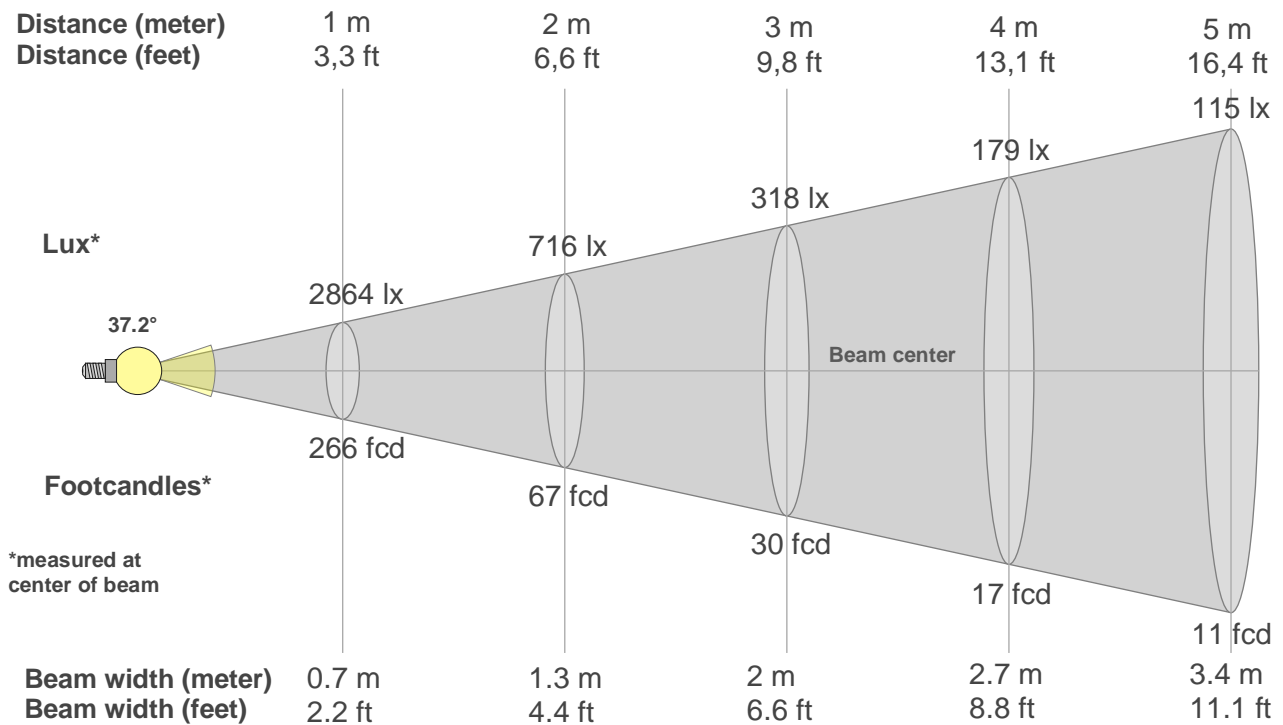


Hue bin



Color Evaluation Sample

Beam details



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 |
| 2864lx | 716lx | 318lx | 179lx | 115lx | 80lx | 58lx | 45lx | 35lx | 29lx | 24lx | 20lx | 17lx | 15lx | 13lx | 11lx | 10lx | 9lx | 8lx | 7lx |
| 266.1fcd | 66.5fcd | 29.6fcd | 16.6fcd | 10.6fcd | 7.4fcd | 5.4fcd | 4.2fcd | 3.3fcd | 2.7fcd | 2.2fcd | 1.8fcd | 1.6fcd | 1.4fcd | 1.2fcd | 1fcd | 0.9fcd | 0.8fcd | 0.7fcd | 0.7fcd |

Intensities in 0° c-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| 2864 | 2846 | 2788 | 2697 | 2581 | 2436 | 2255 | 2032 | 1780 | 1510 | 1259 | 1028 | 801 | 553 | 320 | 140 | 53 | 38 | 32 | 28 |
| 100% | 99% | 97% | 94% | 90% | 85% | 79% | 71% | 62% | 53% | 44% | 36% | 28% | 19% | 11% | 5% | 2% | 1% | 1% | 1% |

Intensities in 90° c-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| 2864 | 2846 | 2788 | 2697 | 2581 | 2436 | 2255 | 2032 | 1780 | 1510 | 1259 | 1028 | 801 | 553 | 320 | 140 | 53 | 38 | 32 | 28 |
| 100% | 99% | 97% | 94% | 90% | 85% | 79% | 71% | 62% | 53% | 44% | 36% | 28% | 19% | 11% | 5% | 2% | 1% | 1% | 1% |

Intensities in 180° c-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| 2864 | 2846 | 2788 | 2697 | 2581 | 2436 | 2255 | 2032 | 1780 | 1510 | 1259 | 1028 | 801 | 553 | 320 | 140 | 53 | 38 | 32 | 28 |
| 100% | 99% | 97% | 94% | 90% | 85% | 79% | 71% | 62% | 53% | 44% | 36% | 28% | 19% | 11% | 5% | 2% | 1% | 1% | 1% |

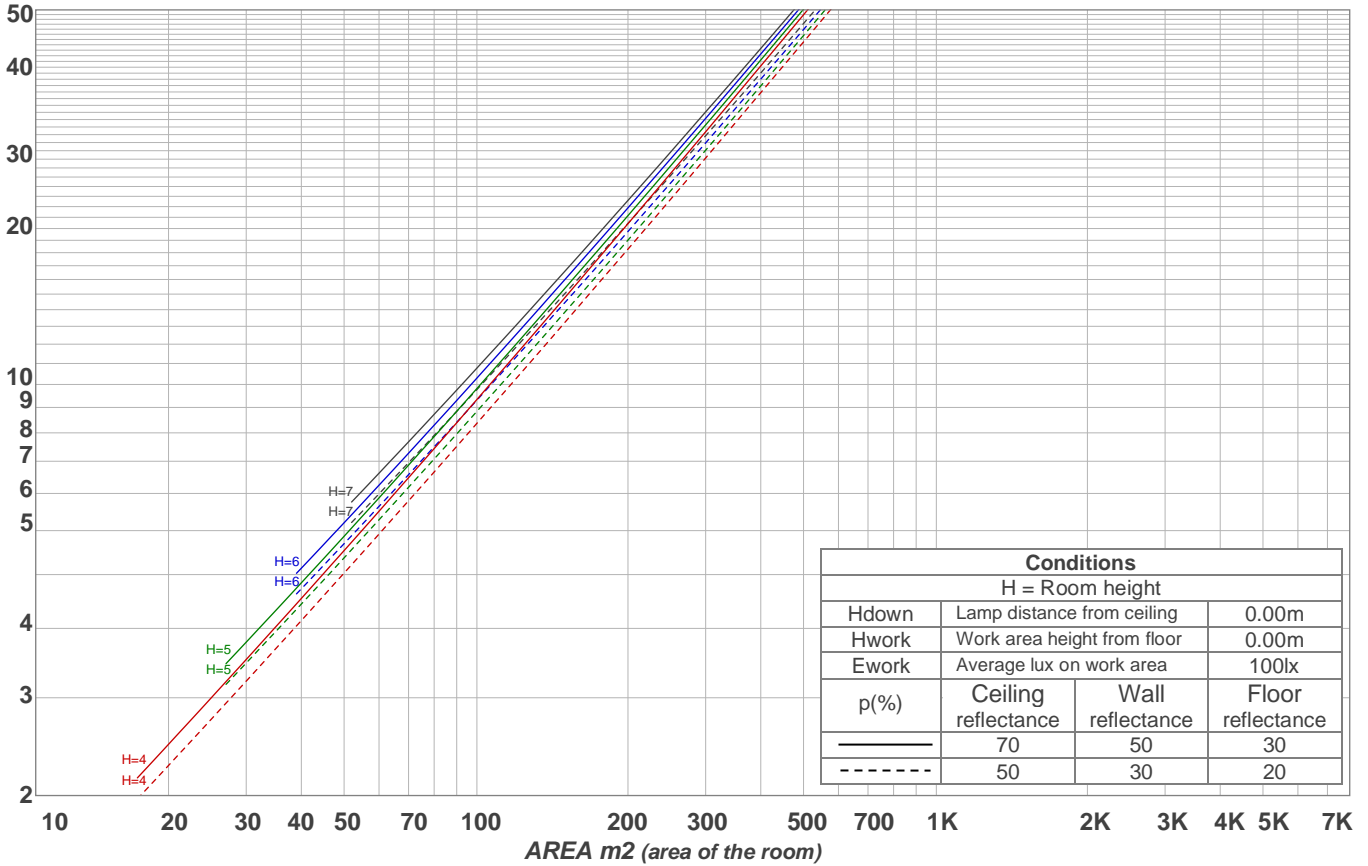
Intensities in 270° c-plane

| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| 2864 | 2846 | 2788 | 2697 | 2581 | 2436 | 2255 | 2032 | 1780 | 1510 | 1259 | 1028 | 801 | 553 | 320 | 140 | 53 | 38 | 32 | 28 |
| 100% | 99% | 97% | 94% | 90% | 85% | 79% | 71% | 62% | 53% | 44% | 36% | 28% | 19% | 11% | 5% | 2% | 1% | 1% | 1% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 37.2° | 56.6° | 62.5° | 99.5% | 98.4% |

Light planning Luminaire budgetary diagram

LAMPS (number of lamps)



Luminaire budgetary diagram AREA m2 (area of the room) 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 | 100 |
| 1 | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 |
| 2 | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99 | 102 | 99 | 97 | 99 | 97 | 95 | 96 | 94 | 93 | 92 |
| 3 | 106 | 101 | 97 | 94 | 104 | 100 | 96 | 93 | 97 | 94 | 92 | 95 | 92 | 90 | 93 | 91 | 89 | 88 |
| 4 | 102 | 96 | 92 | 89 | 101 | 95 | 91 | 88 | 93 | 90 | 87 | 91 | 89 | 86 | 90 | 87 | 85 | 84 |
| 5 | 99 | 92 | 88 | 84 | 97 | 91 | 87 | 84 | 90 | 86 | 83 | 88 | 85 | 83 | 87 | 84 | 82 | 81 |
| 6 | 95 | 88 | 84 | 80 | 94 | 88 | 83 | 80 | 86 | 83 | 80 | 85 | 82 | 79 | 84 | 81 | 79 | 77 |
| 7 | 92 | 85 | 80 | 77 | 91 | 84 | 80 | 77 | 83 | 79 | 76 | 82 | 79 | 76 | 81 | 78 | 76 | 75 |
| 8 | 89 | 82 | 77 | 74 | 88 | 81 | 77 | 74 | 80 | 76 | 73 | 79 | 76 | 73 | 78 | 75 | 73 | 72 |
| 9 | 86 | 79 | 74 | 71 | 85 | 78 | 74 | 71 | 77 | 73 | 71 | 77 | 73 | 70 | 76 | 73 | 70 | 69 |
| 10 | 83 | 76 | 71 | 68 | 83 | 76 | 71 | 68 | 75 | 71 | 68 | 74 | 71 | 68 | 73 | 70 | 68 | 67 |

Zonal Lumen Summary

| | | | | | | | | |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0°-10° | 10°-20° | 20°-30° | 30°-40° | 40°-50° | 50°-60° | 60°-70° | 70°-80° | 80°-90° |
| 252 lm | 516 lm | 297 lm | 26.9 lm | 13.2 lm | 6.71 lm | 3.14 lm | 1.06 lm | 0.588 lm |
| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm | 0.000 lm |

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 | | | | |
| 2H | 2H | 19.6 | 20.1 | 19.7 | 20.3 | 20.5 | 19.6 | 20.1 | 19.7 | 20.3 | 20.5 |
| | 3H | 19.7 | 20.3 | 20.1 | 20.5 | 20.7 | 19.7 | 20.3 | 20.1 | 20.5 | 20.7 |
| | 4H | 19.7 | 20.3 | 20.1 | 20.5 | 20.8 | 19.7 | 20.3 | 20.1 | 20.5 | 20.8 |
| | 6H | 19.8 | 20.3 | 20.1 | 20.6 | 20.9 | 19.8 | 20.3 | 20.1 | 20.6 | 20.9 |
| | 8H | 19.8 | 20.3 | 20.1 | 20.6 | 21.0 | 19.8 | 20.3 | 20.1 | 20.6 | 21.0 |
| | 12H | 19.8 | 20.3 | 20.2 | 20.6 | 21.1 | 19.8 | 20.3 | 20.2 | 20.6 | 21.1 |
| 4H | 2H | 19.5 | 20.2 | 19.9 | 20.4 | 20.6 | 19.5 | 20.2 | 19.9 | 20.4 | 20.6 |
| | 3H | 19.9 | 20.3 | 20.2 | 20.7 | 21.1 | 19.9 | 20.3 | 20.2 | 20.7 | 21.1 |
| | 4H | 19.9 | 20.3 | 20.3 | 20.7 | 21.2 | 19.9 | 20.3 | 20.3 | 20.7 | 21.2 |
| | 6H | 19.9 | 20.4 | 20.4 | 20.7 | 21.1 | 19.9 | 20.4 | 20.4 | 20.7 | 21.1 |
| | 8H | 20.0 | 20.4 | 20.5 | 20.7 | 21.1 | 20.0 | 20.4 | 20.5 | 20.7 | 21.1 |
| | 12H | 20.0 | 20.4 | 20.5 | 20.8 | 21.2 | 20.0 | 20.4 | 20.5 | 20.8 | 21.2 |
| 8H | 4H | 19.8 | 20.3 | 20.3 | 20.6 | 20.9 | 19.8 | 20.3 | 20.3 | 20.6 | 20.9 |
| | 6H | 20.0 | 20.2 | 20.5 | 20.7 | 21.2 | 20.0 | 20.2 | 20.5 | 20.7 | 21.2 |
| | 8H | 20.1 | 20.3 | 20.6 | 20.8 | 21.4 | 20.1 | 20.3 | 20.6 | 20.8 | 21.4 |
| | 12H | 20.2 | 20.4 | 20.8 | 20.9 | 21.5 | 20.2 | 20.4 | 20.8 | 20.9 | 21.5 |
| 12H | 4H | 19.8 | 20.1 | 20.3 | 20.5 | 21.0 | 19.8 | 20.1 | 20.3 | 20.5 | 21.0 |
| | 6H | 20.0 | 20.2 | 20.5 | 20.7 | 21.3 | 20.0 | 20.2 | 20.5 | 20.7 | 21.3 |
| | 8H | 20.1 | 20.3 | 20.7 | 20.8 | 21.4 | 20.1 | 20.3 | 20.7 | 20.8 | 21.4 |
| Corrected glare indices referring to 1117 lm total luminous flux | | | | | | | | | | | |