**Light efficiency:**

98 Lumen/Watt

**Light quality:**

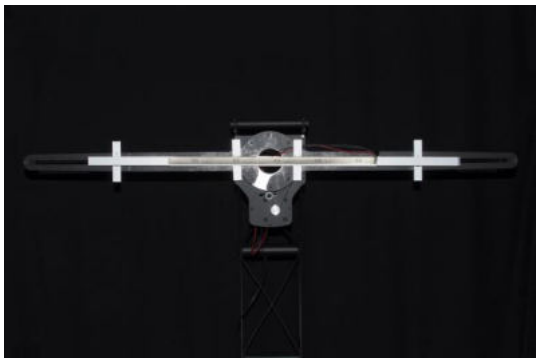
CRI: 92,3

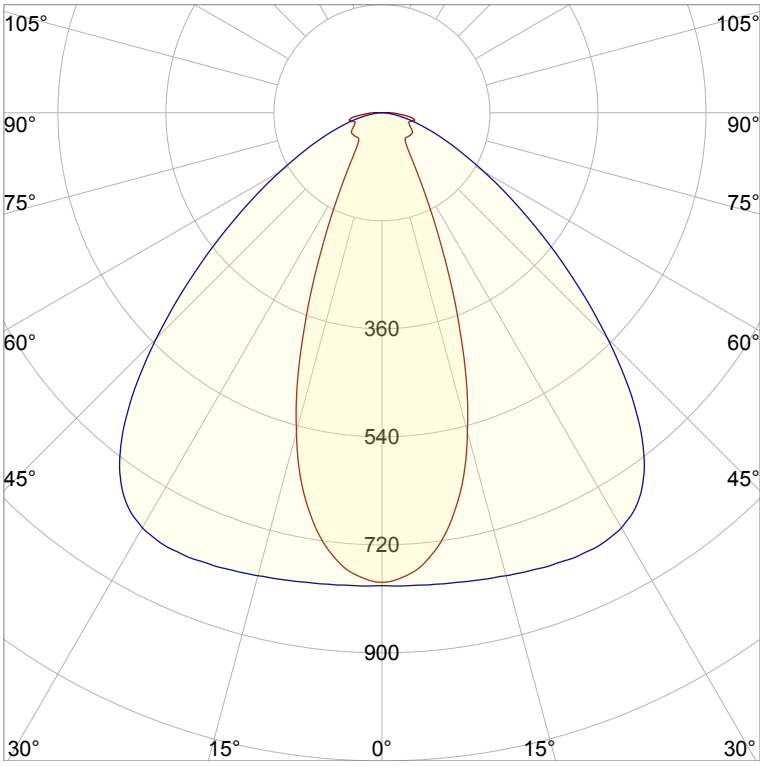
**Color temperature:**

5518 K

**Output:** 987 lm
**Peak:** 808 cd

**Power:** 10,1 W
**PF:** 1,0






**Product name:**
**Pegasus-4-0508-956-L3F**

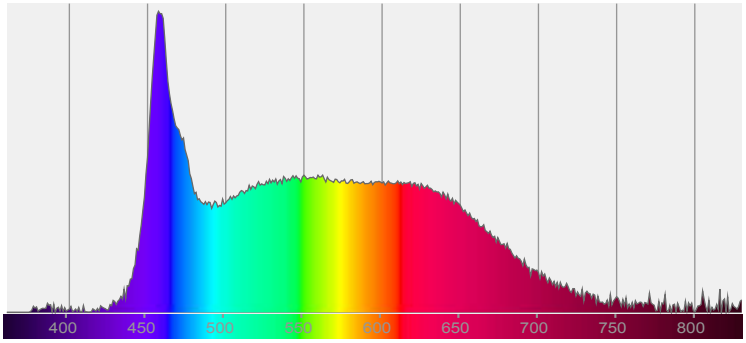
**Item number:**
**FLNP/L/09D0508/956/L3F**

**Date and time:**
**08.04.2021 15:54:55**

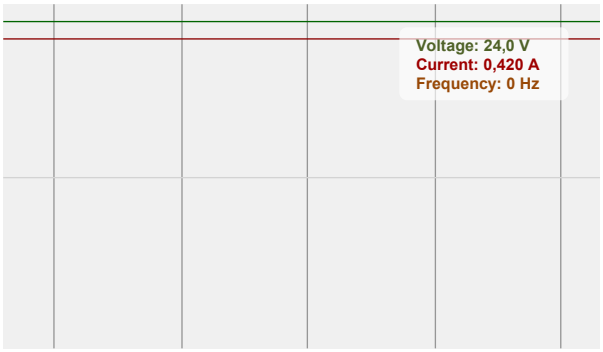
**Description:**
**Rank: G7-2G0**
**Toleranzen:**
**Lumen +/-4%**
**Candela +/-2,5%**
**Colour Temp +/-35 K**
**CRI +/-0,7**
**Angular Resolution 1 Grad step**
**Last Calibration 20-05-2020**
**Pruefer: Peter Ulrich**
**Pruefort: Lichtlabor**
**Gaustrasse 13**
**55411 Bingen am Rhein**

**CIE 1931**
**x: 0,332**
**y: 0,345**

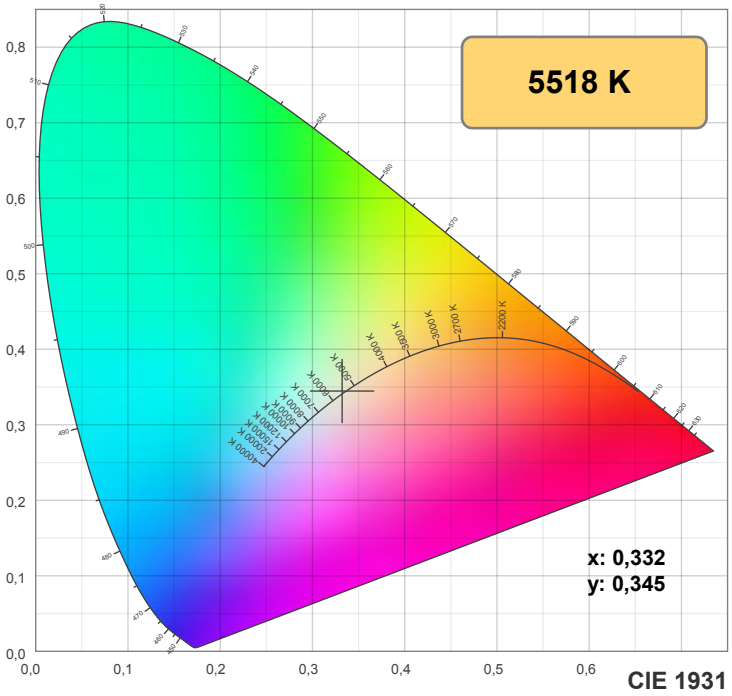
**Spectra**



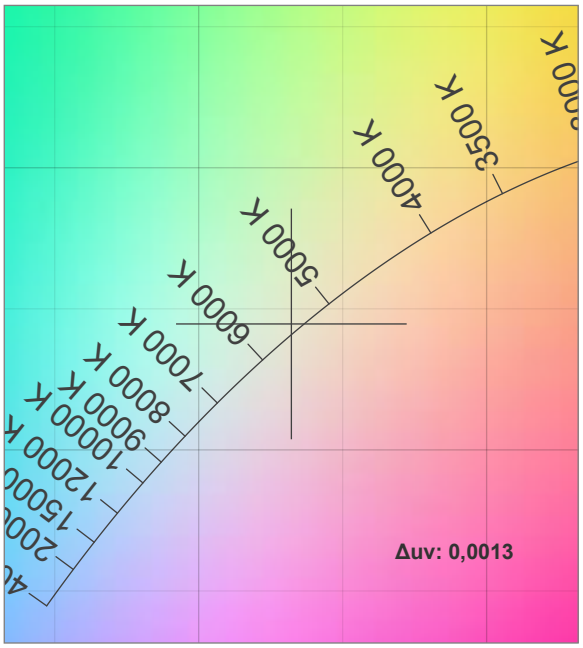

**Power**



# Color details

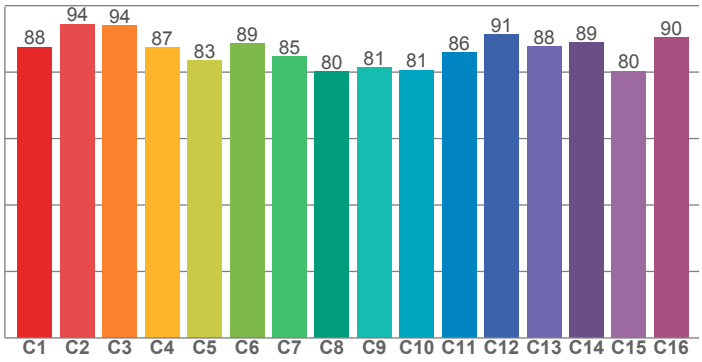



CIE 1931

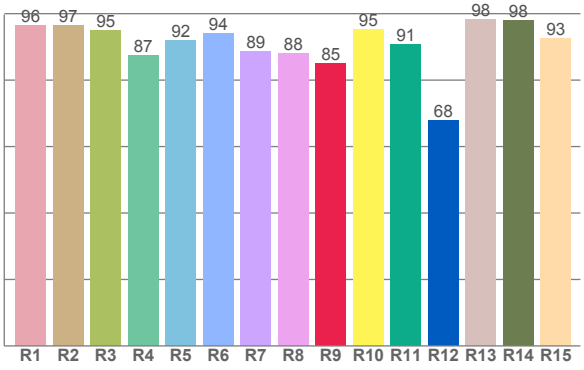



CIE 1931 ZOOM

## TM30: 86,6




## CRI: 92,3 (R1-R8)




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

| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 96,3 | 96,5 | 94,9 | 87,4 | 92,0 | 94,1 | 88,6 | 88,1 | 84,9 | 95,2 | 90,6 | 67,8 | 98,4 | 97,9 | 92,6 |

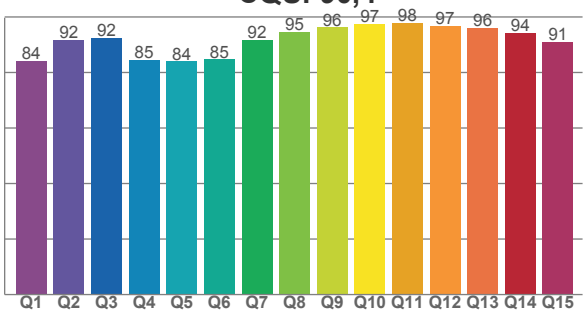
**TM30 C values, 16 binned values out of total of 99 C values**

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 87,5 | 94,5 | 94,0 | 87,3 | 83,4 | 88,7 | 84,7 | 80,1 | 81,5 | 80,6 | 85,9 | 91,4 | 87,8 | 88,8 | 80,3 | 90,5 |

**CQS Q values**

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84,0 | 91,6 | 92,4 | 84,6 | 84,0 | 84,7 | 91,7 | 94,6 | 96,2 | 97,4 | 97,9 | 96,9 | 96,2 | 94,3 | 91,0 |

## CQS: 90,4




## 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 diviation from black body |
|---|---|---|---|---|---|---|---|---|---|---|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 5518 K | 92,3 | 84,9 | 86,6 | 94,3 | 90,4 | 0,332 | 0,345 | 0,205 | 0,320 | 0,0013 |

# TM30 details

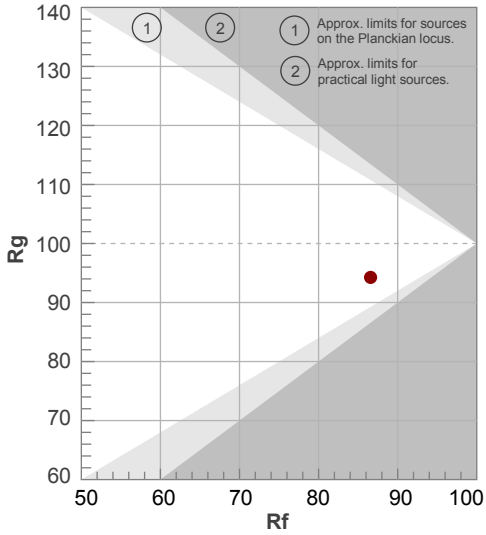
**Rf 86,6**

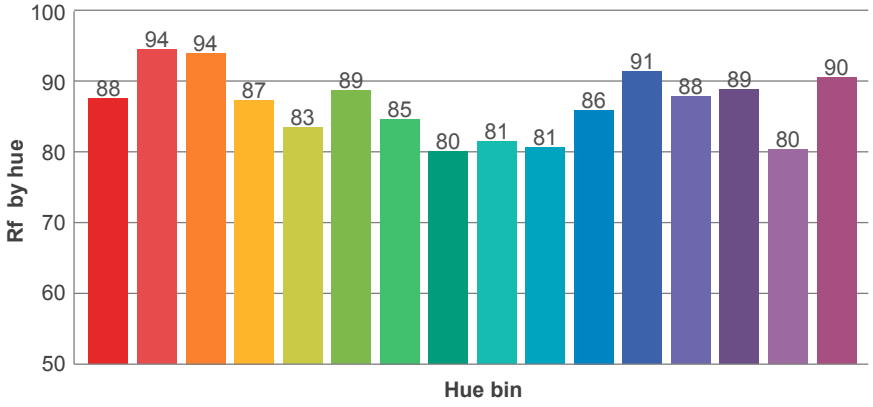
Fidelity index Rf

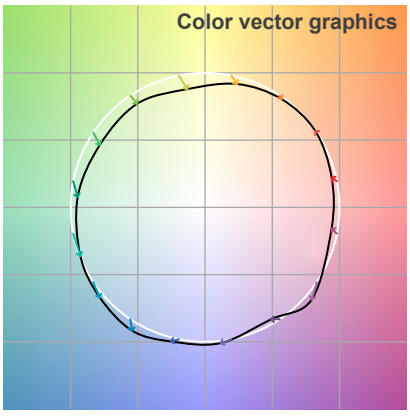
**Rg 94,3**

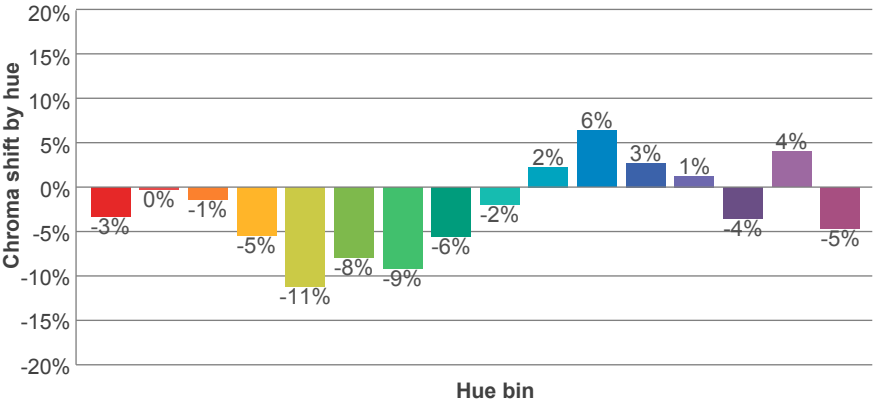
Gammut index Rg

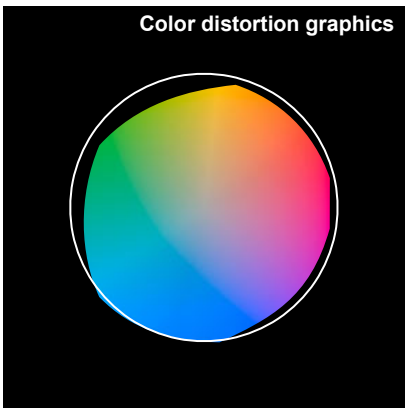
| | | Graphic shifts (%) | |
|---|---|---|---|
| Hue Bin | $R_f$ | Chroma | Hue |
| 1 | 88 | -3% | 3% |
| 2 | 94 | 0% | 2% |
| 3 | 94 | -1% | -2% |
| 4 | 87 | -5% | -5% |
| 5 | 83 | -11% | -4% |
| 6 | 89 | -8% | -1% |
| 7 | 85 | -9% | 5% |
| 8 | 80 | -6% | 11% |
| 9 | 81 | -2% | 17% |
| 10 | 81 | 2% | 12% |
| 11 | 86 | 6% | 6% |
| 12 | 91 | 3% | -5% |
| 13 | 88 | 1% | -8% |
| 14 | 89 | -4% | -5% |
| 15 | 80 | 4% | -13% |
| 16 | 90 | -5% | 3% |

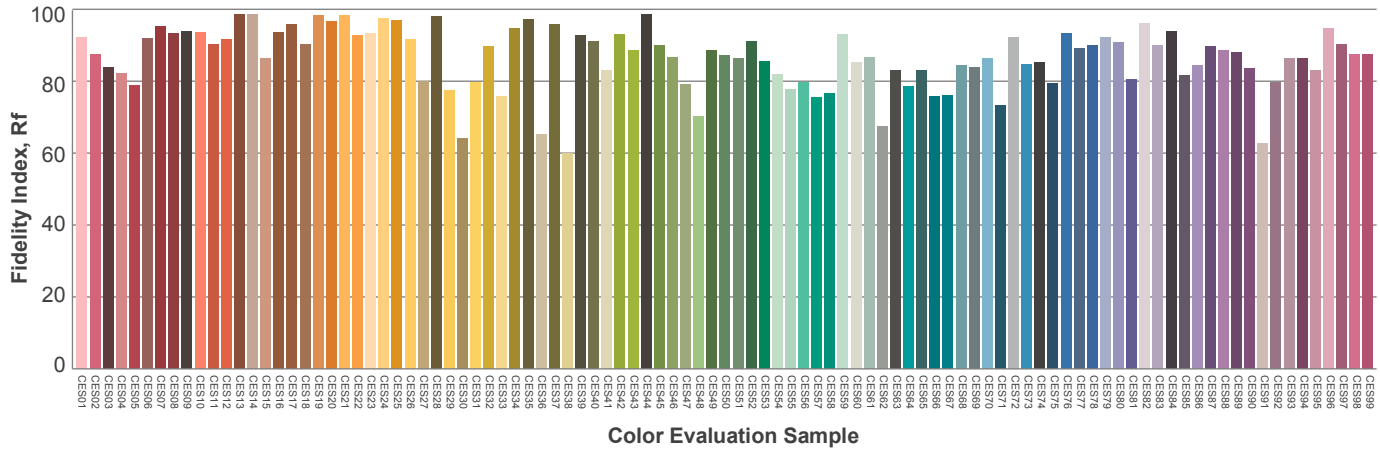


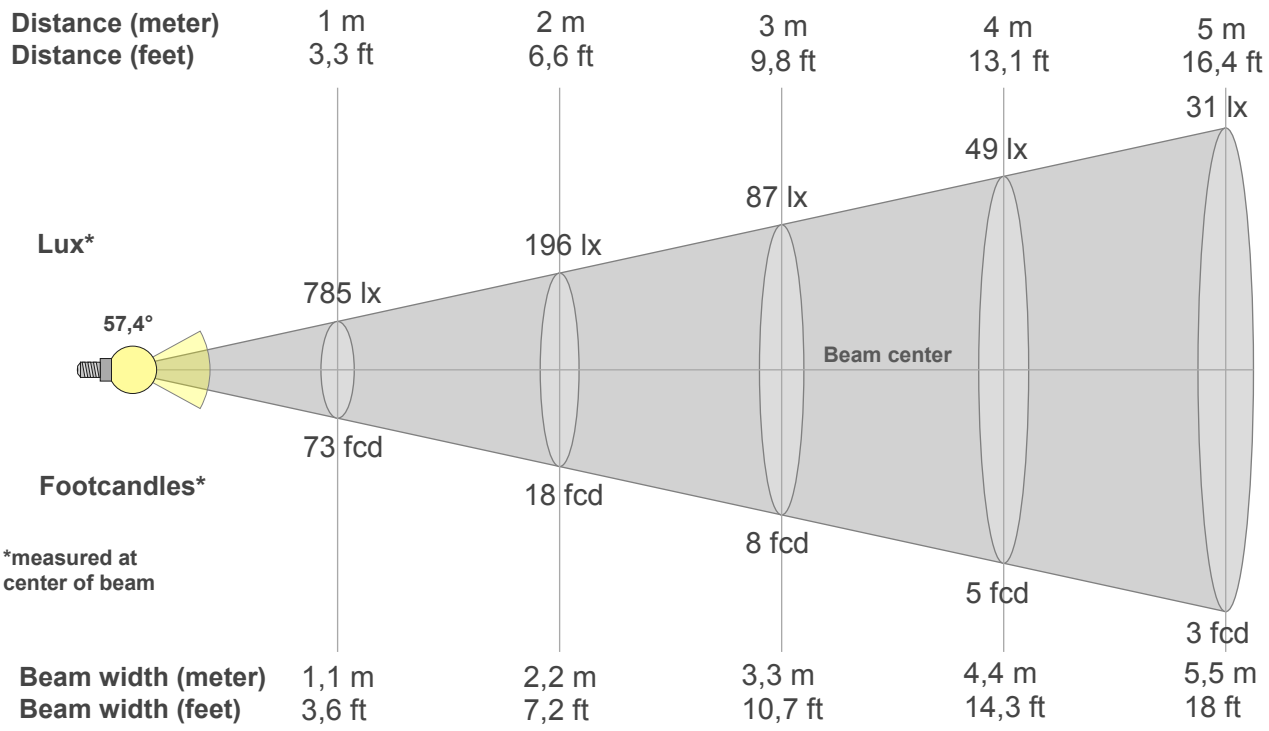



# Beam details




**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 |
| 785lx | 196lx | 87lx | 49lx | 31lx | 22lx | 16lx | 12lx | 10lx | 8lx | 6lx | 5lx | 5lx | 4lx | 3lx | 3lx | 3lx | 2lx | 2lx | 2lx |
| 73fcd | 18,2fcd | 8,1fcd | 4,6fcd | 2,9fcd | 2fcd | 1,5fcd | 1,1fcd | 0,9fcd | 0,7fcd | 0,6fcd | 0,5fcd | 0,4fcd | 0,4fcd | 0,3fcd | 0,3fcd | 0,3fcd | 0,2fcd | 0,2fcd | 0,2fcd |

**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° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 785 | 777 | 766 | 746 | 718 | 682 | 637 | 582 | 519 | 449 | 375 | 307 | 244 | 194 | 153 | 122 | 100 | 84 | 72 | 65 |
| 100% | 99% | 98% | 95% | 91% | 87% | 81% | 74% | 66% | 57% | 48% | 39% | 31% | 25% | 19% | 16% | 13% | 11% | 9% | 8% |

**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° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 785 | 789 | 789 | 791 | 792 | 793 | 795 | 797 | 800 | 802 | 805 | 806 | 808 | 807 | 804 | 798 | 787 | 769 | 743 | 707 |
| 100% | 100% | 101% | 101% | 101% | 101% | 101% | 102% | 102% | 102% | 102% | 103% | 103% | 103% | 102% | 102% | 100% | 98% | 95% | 90% |

**Intensities in 180° c-plane**

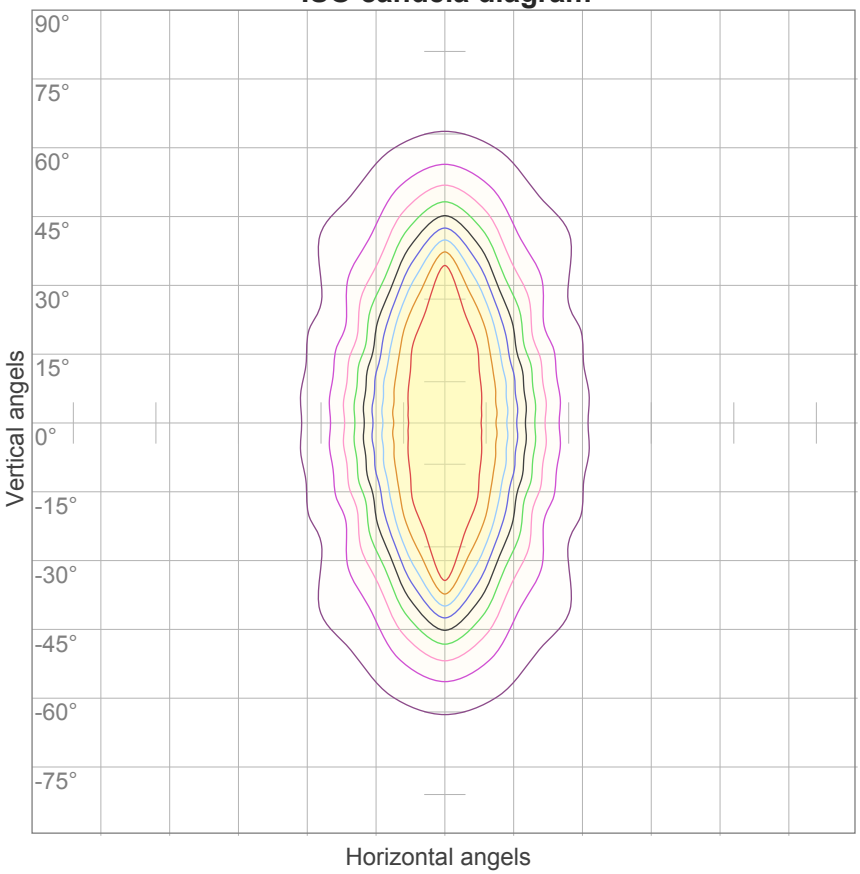
| 0° | 2° | 4° | 6° | 8° | 10° | 12° | 14° | 16° | 18° | 20° | 22° | 24° | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 785 | 777 | 766 | 746 | 718 | 682 | 637 | 582 | 519 | 449 | 375 | 307 | 244 | 194 | 153 | 122 | 100 | 84 | 72 | 65 |
| 100% | 99% | 98% | 95% | 91% | 87% | 81% | 74% | 66% | 57% | 48% | 39% | 31% | 25% | 19% | 16% | 13% | 11% | 9% | 8% |

**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° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 785 | 789 | 789 | 791 | 792 | 793 | 795 | 797 | 800 | 802 | 805 | 806 | 808 | 807 | 804 | 798 | 787 | 769 | 743 | 707 |
| 100% | 100% | 101% | 101% | 101% | 101% | 101% | 102% | 102% | 102% | 102% | 103% | 103% | 103% | 102% | 102% | 100% | 98% | 95% | 90% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|---|---|---|---|---|
| **57,4°** | **95,5°** | **172,2°** | **84,0%** | **69,8%** |

## ISO candela diagram



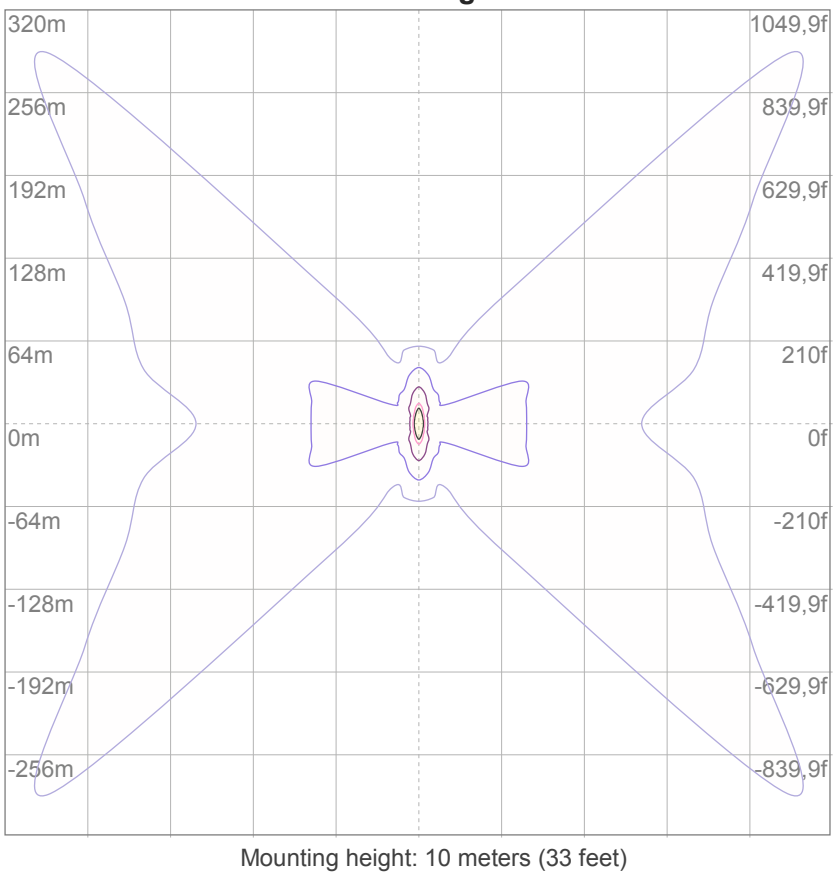

| | |
|---|---|
| 10% | 79 cd |
| 20% | 157 cd |
| 30% | 236 cd |
| 40% | 314 cd |
| 50% | 393 cd |
| 60% | 471 cd |
| 70% | 550 cd |
| 80% | 628 cd |
| 90% | 707 cd |

Conditions:

Number of c-planes: 16

Candela at center: 785 cd

## ISO lux diagram




| | |
|---|---|
| 3% | 0,236 lx |
| 5% | 0,393 lx |
| 10% | 0,785 lx |
| 30% | 2,36 lx |
| 50% | 3,93 lx |

Conditions:

Number of c-planes: 16

Lux at center: 7,85 lx

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

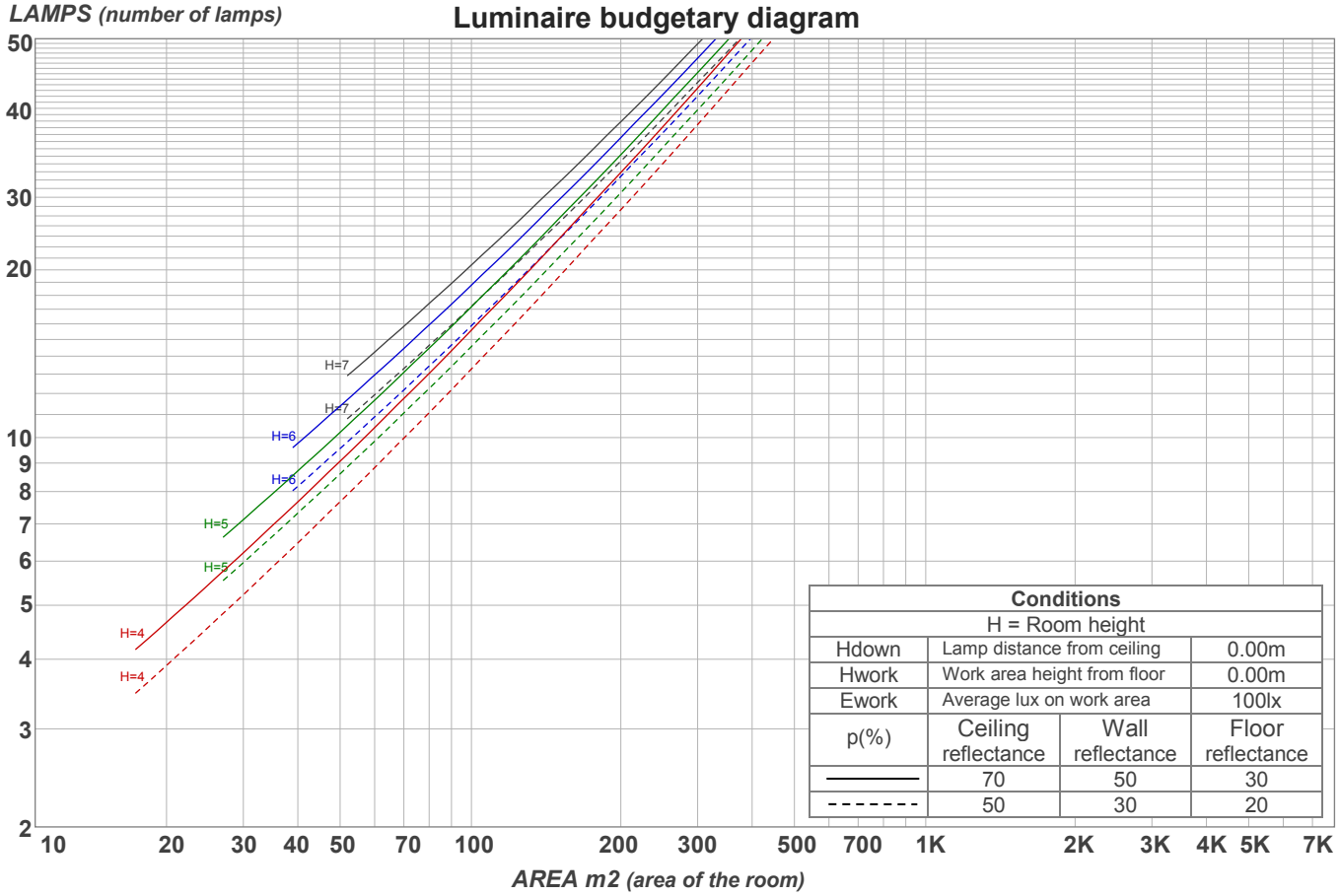
## Glare Evaluation According to UGR

| 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 | | | | |
| 2H | 2H | 14,8 | 15,8 | 15,0 | 16,1 | 16,3 | 23,8 | 24,7 | 23,9 | 25,0 | 25,2 |
| | 3H | 16,8 | 17,8 | 17,2 | 18,1 | 18,3 | 24,5 | 25,5 | 24,9 | 25,8 | 26,0 |
| | 4H | 18,1 | 19,1 | 18,5 | 19,4 | 19,6 | 24,8 | 25,8 | 25,2 | 26,0 | 26,3 |
| | 6H | 19,8 | 20,7 | 20,1 | 21,0 | 21,3 | 25,0 | 25,9 | 25,3 | 26,2 | 26,6 |
| | 8H | 20,4 | 21,3 | 20,7 | 21,6 | 22,0 | 25,1 | 25,9 | 25,4 | 26,2 | 26,6 |
| | 12H | 20,8 | 21,6 | 21,1 | 21,9 | 22,4 | 25,1 | 25,9 | 25,5 | 26,3 | 26,7 |
| 4H | 2H | 15,6 | 16,6 | 16,0 | 16,9 | 17,1 | 23,5 | 24,5 | 23,9 | 24,8 | 25,0 |
| | 3H | 17,8 | 18,7 | 18,2 | 19,0 | 19,4 | 24,4 | 25,3 | 24,8 | 25,6 | 26,0 |
| | 4H | 19,3 | 20,0 | 19,7 | 20,5 | 21,0 | 24,7 | 25,5 | 25,2 | 25,9 | 26,5 |
| | 6H | 21,1 | 21,9 | 21,6 | 22,2 | 22,6 | 25,0 | 25,8 | 25,5 | 26,1 | 26,5 |
| | 8H | 21,8 | 22,5 | 22,3 | 22,8 | 23,2 | 25,1 | 25,8 | 25,6 | 26,2 | 26,6 |
| | 12H | 22,2 | 22,8 | 22,7 | 23,2 | 23,7 | 25,2 | 25,8 | 25,7 | 26,2 | 26,6 |
| 8H | 4H | 19,7 | 20,4 | 20,2 | 20,7 | 21,1 | 24,7 | 25,4 | 25,2 | 25,8 | 26,2 |
| | 6H | 21,8 | 22,3 | 22,3 | 22,8 | 23,3 | 25,1 | 25,6 | 25,6 | 26,1 | 26,6 |
| | 8H | 22,7 | 23,1 | 23,2 | 23,6 | 24,3 | 25,3 | 25,7 | 25,8 | 26,3 | 26,9 |
| | 12H | 23,3 | 23,6 | 23,9 | 24,2 | 24,8 | 25,4 | 25,8 | 26,0 | 26,3 | 26,9 |
| 12H | 4H | 19,7 | 20,3 | 20,2 | 20,7 | 21,2 | 24,7 | 25,3 | 25,2 | 25,7 | 26,2 |
| | 6H | 21,9 | 22,4 | 22,4 | 22,9 | 23,5 | 25,2 | 25,6 | 25,7 | 26,1 | 26,8 |
| | 8H | 22,9 | 23,2 | 23,4 | 23,7 | 24,4 | 25,3 | 25,7 | 25,9 | 26,2 | 26,8 |
| Variation of the observer position for the luminaire distance S | | | | | | | | | | | |
| S = 1.0H | | 0,1 / -0,1 | | | | | 1,1 / -1,1 | | | | |
| S = 1.5H | | 0,1 / -0,1 | | | | | 2,5 / -2,1 | | | | |
| S = 2.0H | | 0,2 / -0,2 | | | | | 3,8 / -3,0 | | | | |
| Standard table | | n/a | | | | | n/a | | | | |
| Correction summand | | n/a | | | | | n/a | | | | |
| Corrected glare indices referring to 987 lm total luminous flux | | | | | | | | | | | |

## 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 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 104 | 104 | 104 | 99 | 99 | 99 | 97 |
| 1 | 110 | 105 | 102 | 98 | 107 | 103 | 100 | 96 | 98 | 95 | 93 | 94 | 92 | 90 | 90 | 88 | 86 | 84 |
| 2 | 102 | 95 | 89 | 84 | 99 | 93 | 87 | 83 | 89 | 84 | 81 | 85 | 82 | 78 | 82 | 79 | 76 | 74 |
| 3 | 95 | 86 | 79 | 73 | 92 | 84 | 78 | 73 | 81 | 75 | 71 | 78 | 73 | 69 | 75 | 71 | 68 | 66 |
| 4 | 88 | 78 | 71 | 65 | 86 | 77 | 70 | 64 | 74 | 68 | 63 | 71 | 66 | 62 | 69 | 65 | 61 | 59 |
| 5 | 82 | 72 | 64 | 58 | 80 | 70 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 56 | 64 | 59 | 55 | 54 |
| 6 | 77 | 66 | 58 | 53 | 75 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 59 | 55 | 51 | 49 |
| 7 | 73 | 61 | 54 | 48 | 71 | 60 | 53 | 48 | 59 | 52 | 48 | 57 | 51 | 47 | 56 | 50 | 47 | 45 |
| 8 | 69 | 57 | 50 | 45 | 67 | 56 | 49 | 44 | 55 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 43 | 41 |
| 9 | 65 | 53 | 46 | 41 | 63 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 44 | 40 | 49 | 44 | 40 | 38 |
| 10 | 61 | 50 | 43 | 38 | 60 | 49 | 43 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 46 | 41 | 37 | 36 |

## Luminaire budgetary diagram

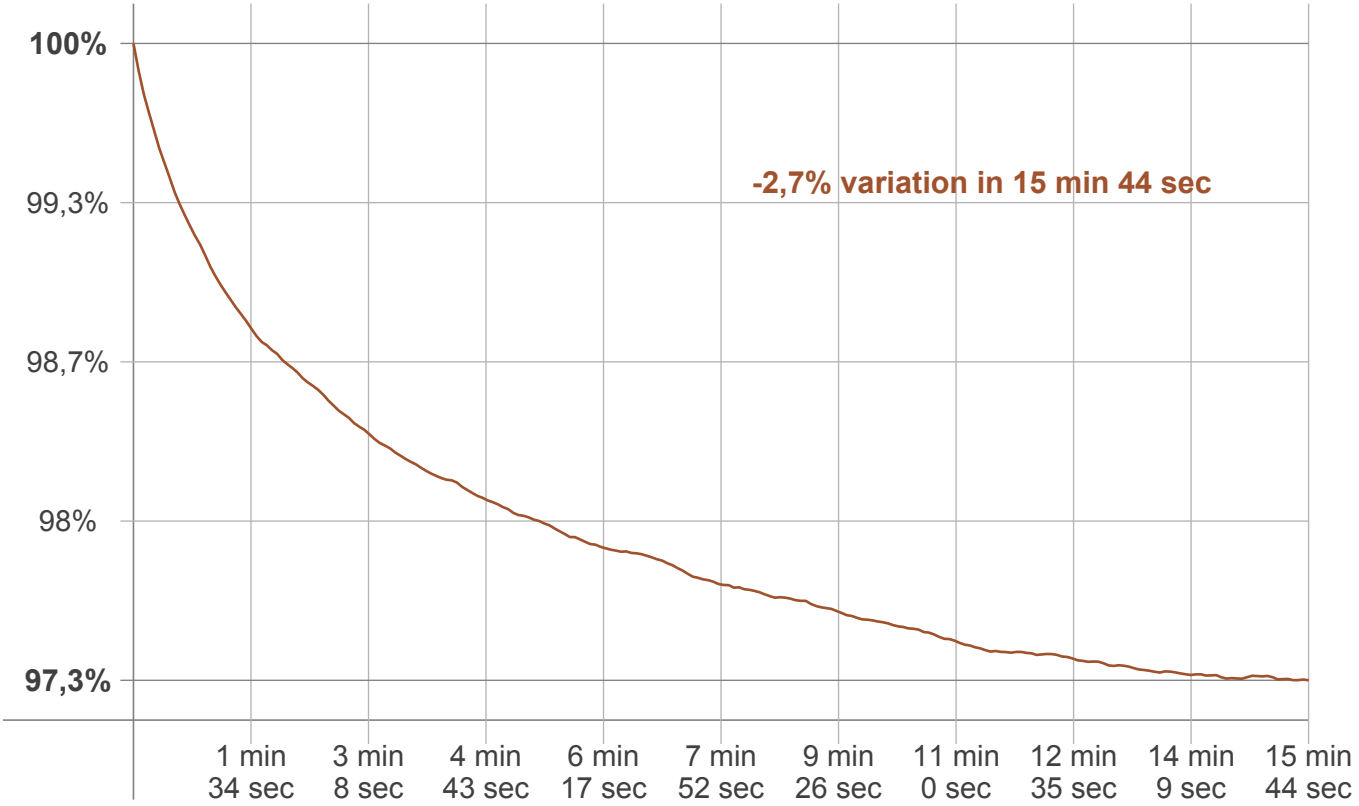



## Zonal Lumen Summary

| 0°-10° | 10°-20° | 20°-30° | 30°-40° | 40°-50° | 50°-60° | 60°-70° | 70°-80° | 80°-90° |
|---|---|---|---|---|---|---|---|---|
| 72,7 lm | 185 lm | 204 lm | 163 lm | 119 lm | 86,2 lm | 59,3 lm | 42,5 lm | 26,7 lm |

| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
|---|---|---|---|---|---|---|---|---|
| 6,86 lm | 5,71 lm | 4,20 lm | 3,57 lm | 3,03 lm | 2,42 lm | 1,78 lm | 1,09 lm | 0,367 lm |

## Warmup curve




## Warmup result

| | |
|---|---|
| **Warmup time:** | **15 min 44 sec** |
| **Warmup variation** | **-2,7%** |

## Warmup conditions

| | |
|---|---|
| **Stable period:** | **15 min** |
| **Stable change max:** | **2,0%** |
| **Minimum time:** | **15 min** |

## Color temperature change

| CCT start | CCT change | CCT end |
|---|---|---|
| 5490 K | +28 K | 5518 K |

## Output change

| Output start | Output change | Output end |
|---|---|---|
| 1011 lm | -24 lm | 987 lm |