**Light efficiency:**

115 Lumen/Watt

**Light quality:**

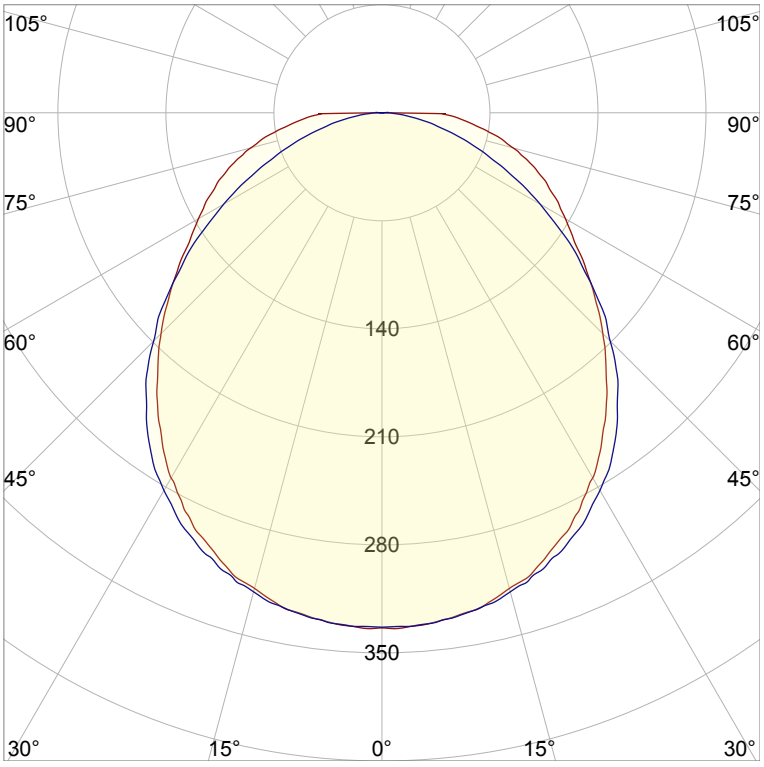
CRI: 83,4

**Color temperature:**

4046 K

**Output:** 967 lm
**Peak:** 334 cd

**Power:** 8,4 W
**PF:** 1,0




**Product name:**
**Pegasus-3-Gold-0508-840-CSF**

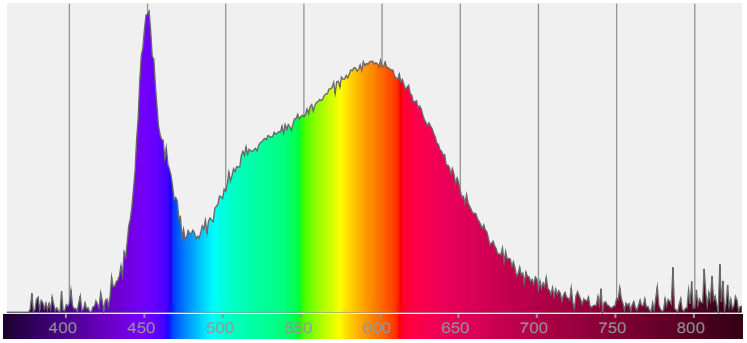
**Item number:**
**FLNP-L-16A-0508-840-CSF**

**Date and time:**
**18.02.2021 15:55:24**

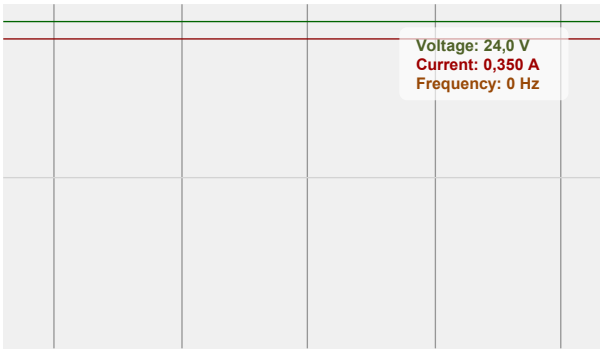
**Description:**
**Rank: S15ZT**
**Toleranzen:**
**Lumen +/-4%**
**Candela +/-2,5%**
**Colour Temp +/-35 Grad K**
**CRI +/-0,7**
**Angular Resolution 1 Grad step**
**Last Calibration 20-05-2020**
**Pruefer: Peter Ulrich**
**Pruefort: Lichtlabor**
**Gaustrasse13-15**
**55411 Bingen am Rhein**

**CIE 1931**
**x: 0,379**
**y: 0,378**

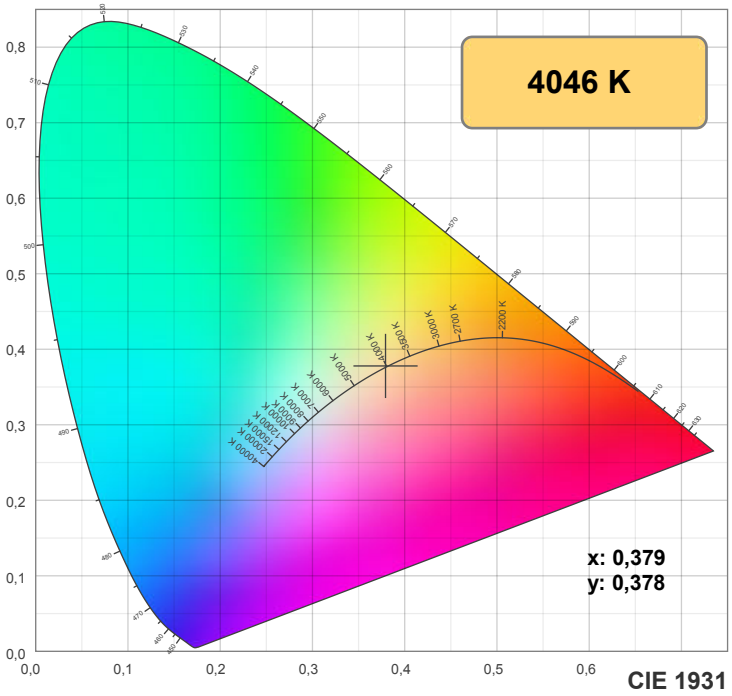
**Spectra**



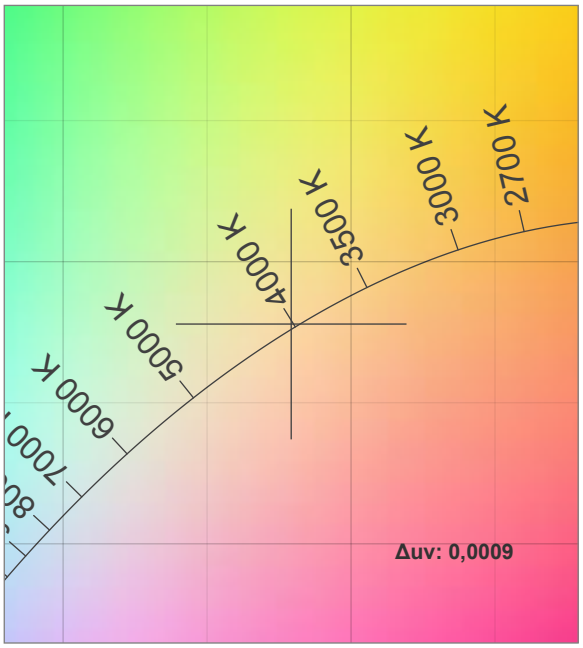

**Power**



# Color details

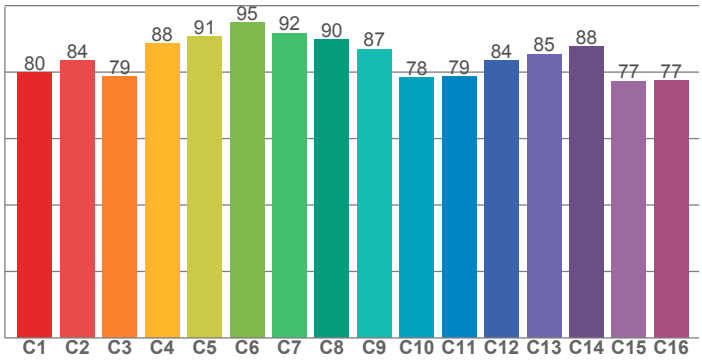



CIE 1931

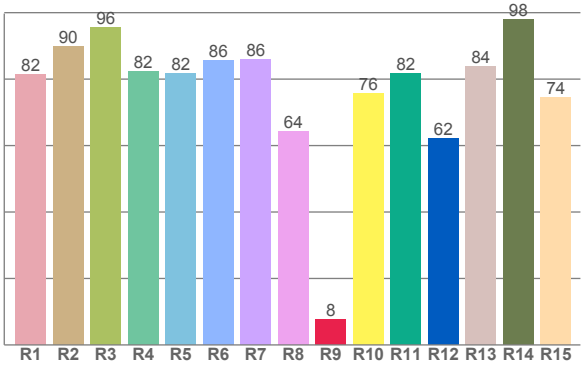



CIE 1931 ZOOM

## TM30: 84,4




## CRI: 83,4 (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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 81,6 | 89,7 | 95,5 | 82,4 | 81,7 | 85,7 | 85,9 | 64,3 | 7,6 | 75,8 | 81,8 | 62,2 | 83,7 | 97,8 | 74,4 |

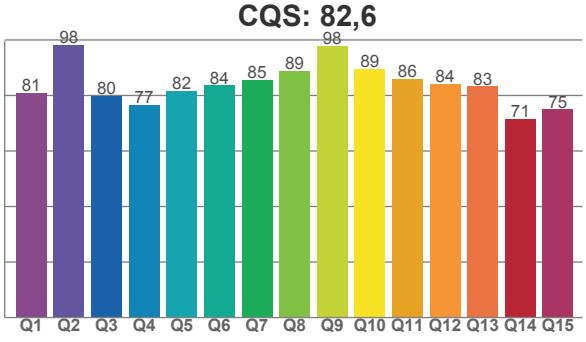
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 79,9 | 83,5 | 78,7 | 88,5 | 90,6 | 94,8 | 91,8 | 89,8 | 86,9 | 78,5 | 78,6 | 83,5 | 85,5 | 87,6 | 77,3 | 77,4 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 81,0 | 98,1 | 79,9 | 76,7 | 81,7 | 83,6 | 85,4 | 88,9 | 97,7 | 89,4 | 85,8 | 84,1 | 83,3 | 71,4 | 74,9 |

## CQS: 82,6




## 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 |
| 4046 K | 83,4 | 7,6 | 84,4 | 95,2 | 82,6 | 0,379 | 0,378 | 0,224 | 0,335 | 0,0009 |

# TM30 details

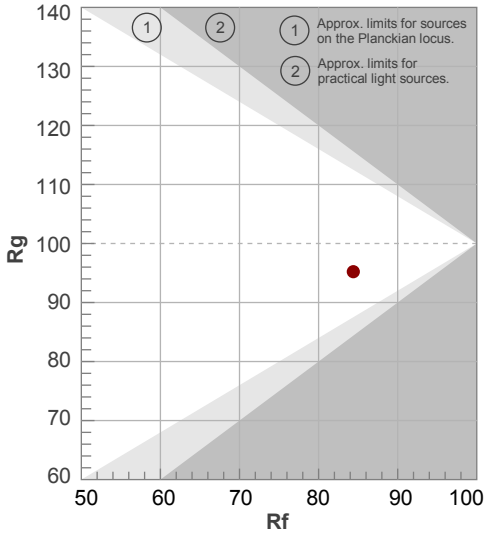
**Rf 84,4**

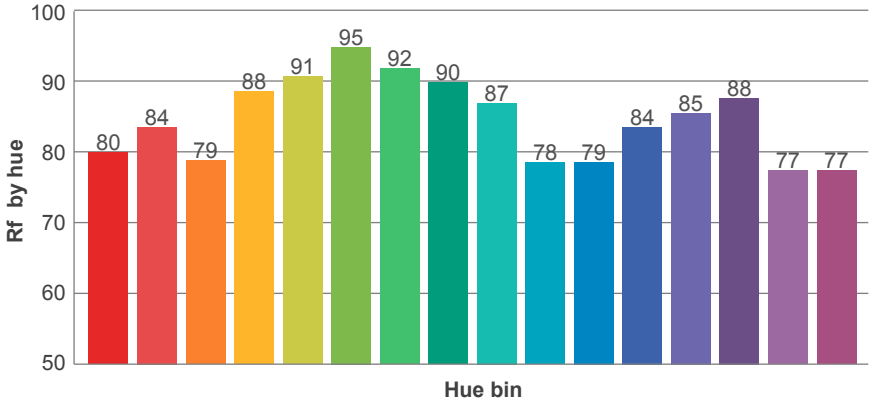
Fidelity index Rf

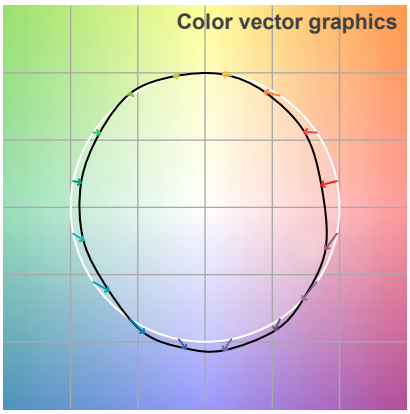
**Rg 95,2**

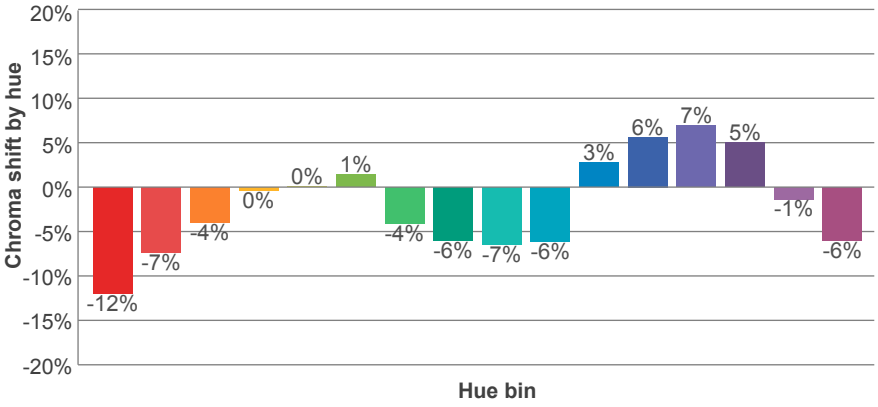
Gammut index Rg

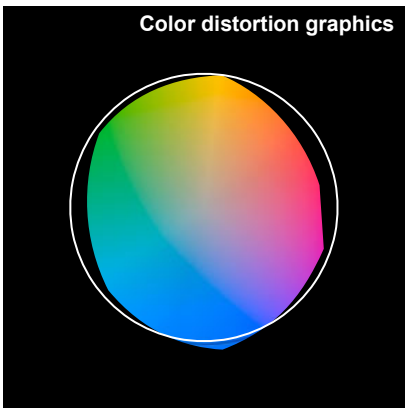
| | | Graphic shifts (%) | |
|---|---|---|---|
| Hue Bin | $R_f$ | Chroma | Hue |
| 1 | 80 | -12% | -1% |
| 2 | 84 | -7% | 6% |
| 3 | 79 | -4% | 11% |
| 4 | 88 | 0% | 6% |
| 5 | 91 | 0% | 3% |
| 6 | 95 | 1% | -2% |
| 7 | 92 | -4% | -3% |
| 8 | 90 | -6% | 0% |
| 9 | 87 | -7% | 6% |
| 10 | 78 | -6% | 12% |
| 11 | 79 | 3% | 14% |
| 12 | 84 | 6% | 6% |
| 13 | 85 | 7% | -7% |
| 14 | 88 | 5% | -8% |
| 15 | 77 | -1% | -17% |
| 16 | 77 | -6% | -13% |

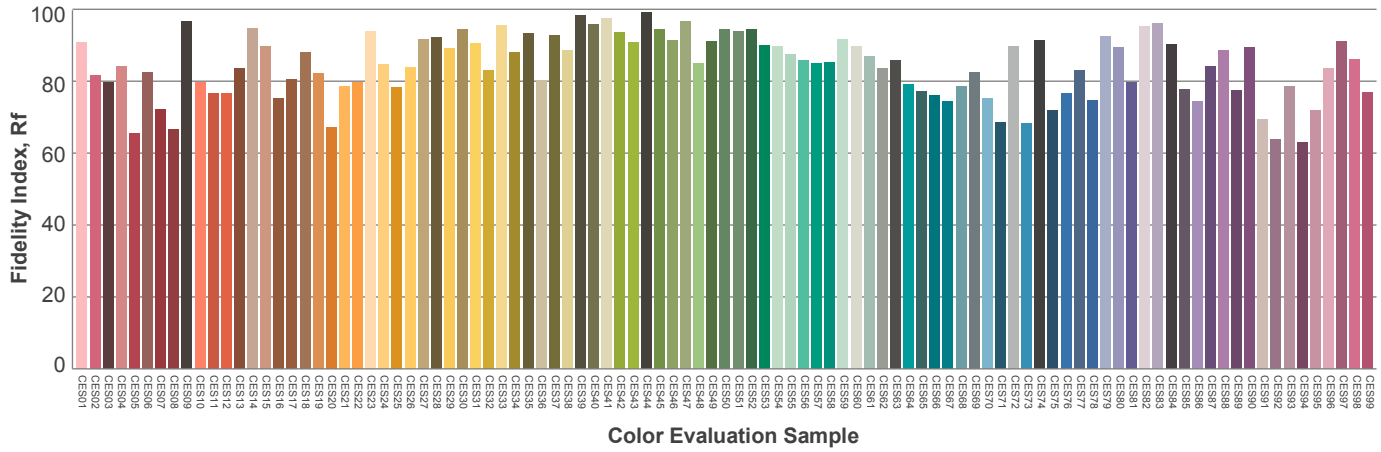


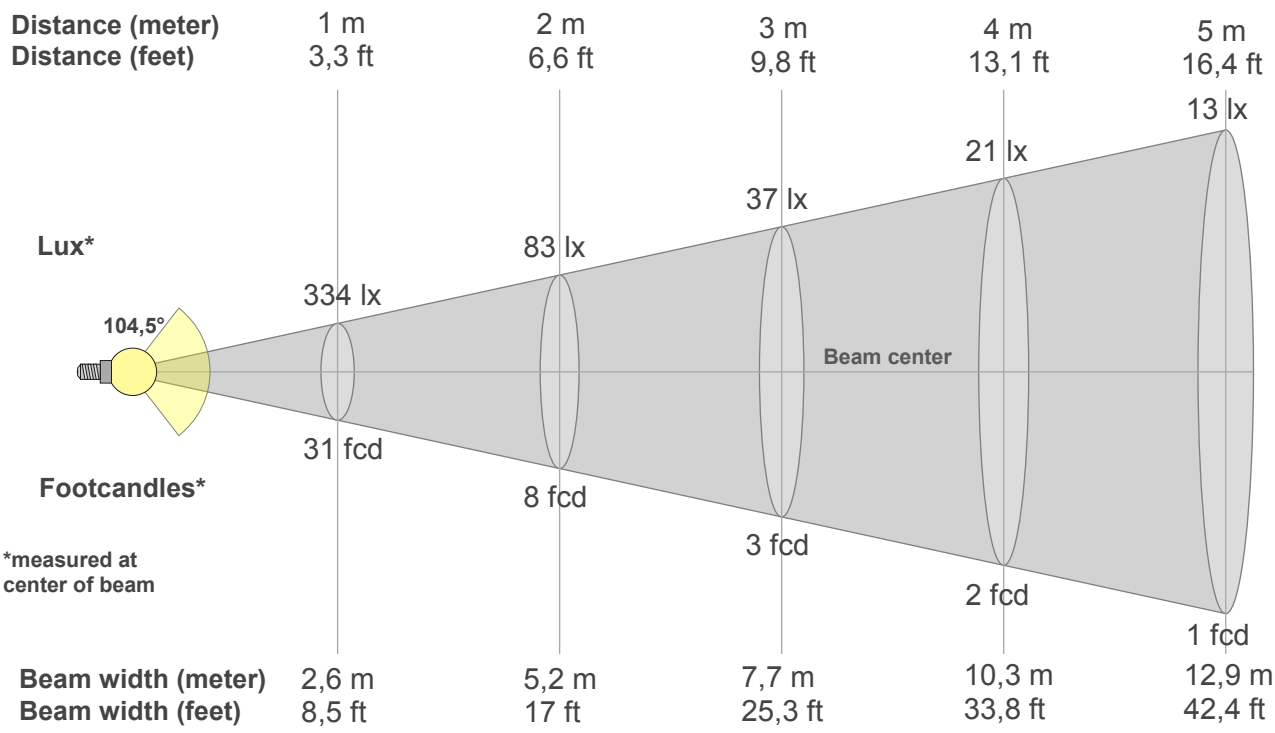



# Beam details




**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 |
| 334lx | 83lx | 37lx | 21lx | 13lx | 9lx | 7lx | 5lx | 4lx | 3lx | 3lx | 2lx | 2lx | 2lx | 1lx | 1lx | 1lx | 1lx | 1lx | 1lx |
| 31fcd | 7,7fcd | 3,4fcd | 1,9fcd | 1,2fcd | 0,9fcd | 0,6fcd | 0,5fcd | 0,4fcd | 0,3fcd | 0,3fcd | 0,2fcd | 0,2fcd | 0,2fcd | 0,1fcd | 0,1fcd | 0,1fcd | 0,1fcd | 0,1fcd | 0,1fcd |

**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° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 334 | 333 | 328 | 319 | 308 | 292 | 273 | 250 | 226 | 202 | 178 | 155 | 137 | 121 | 106 | 88 | 70 | 52 | 22 | 21 |
| 100% | 100% | 98% | 96% | 92% | 88% | 82% | 75% | 68% | 61% | 53% | 47% | 41% | 36% | 32% | 26% | 21% | 16% | 7% | 6% |

**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° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 334 | 332 | 328 | 321 | 312 | 299 | 283 | 263 | 238 | 209 | 180 | 150 | 118 | 89 | 64 | 42 | 25 | 12 | 1 | 0 |
| 100% | 100% | 98% | 96% | 93% | 90% | 85% | 79% | 71% | 63% | 54% | 45% | 35% | 27% | 19% | 13% | 7% | 3% | 0% | 0% |

**Intensities in 180° c-plane**

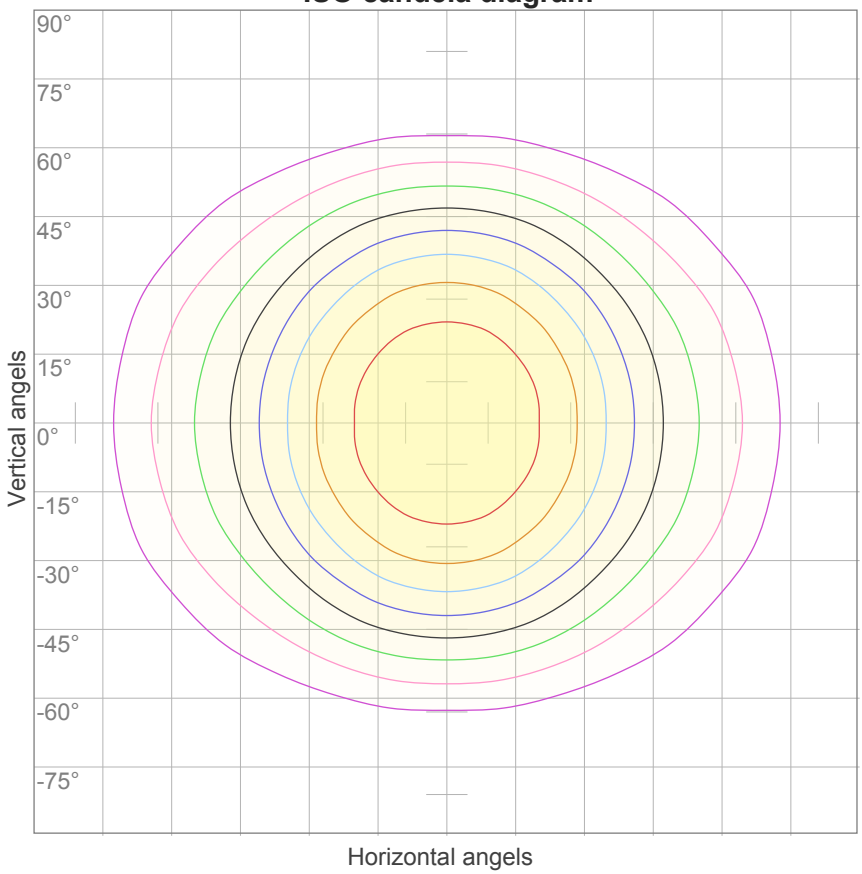
| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 334 | 333 | 328 | 319 | 308 | 292 | 273 | 250 | 226 | 202 | 178 | 155 | 137 | 121 | 106 | 88 | 70 | 52 | 22 | 21 |
| 100% | 100% | 98% | 96% | 92% | 88% | 82% | 75% | 68% | 61% | 53% | 47% | 41% | 36% | 32% | 26% | 21% | 16% | 7% | 6% |

**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° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 334 | 332 | 328 | 321 | 312 | 299 | 283 | 263 | 238 | 209 | 180 | 150 | 118 | 89 | 64 | 42 | 25 | 12 | 1 | 0 |
| 100% | 100% | 98% | 96% | 93% | 90% | 85% | 79% | 71% | 63% | 54% | 45% | 35% | 27% | 19% | 13% | 7% | 3% | 0% | 0% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|---|---|---|---|---|
| **104,5°** | **164,3°** | **208,6°** | **73,5%** | **51,4%** |

## ISO candela diagram



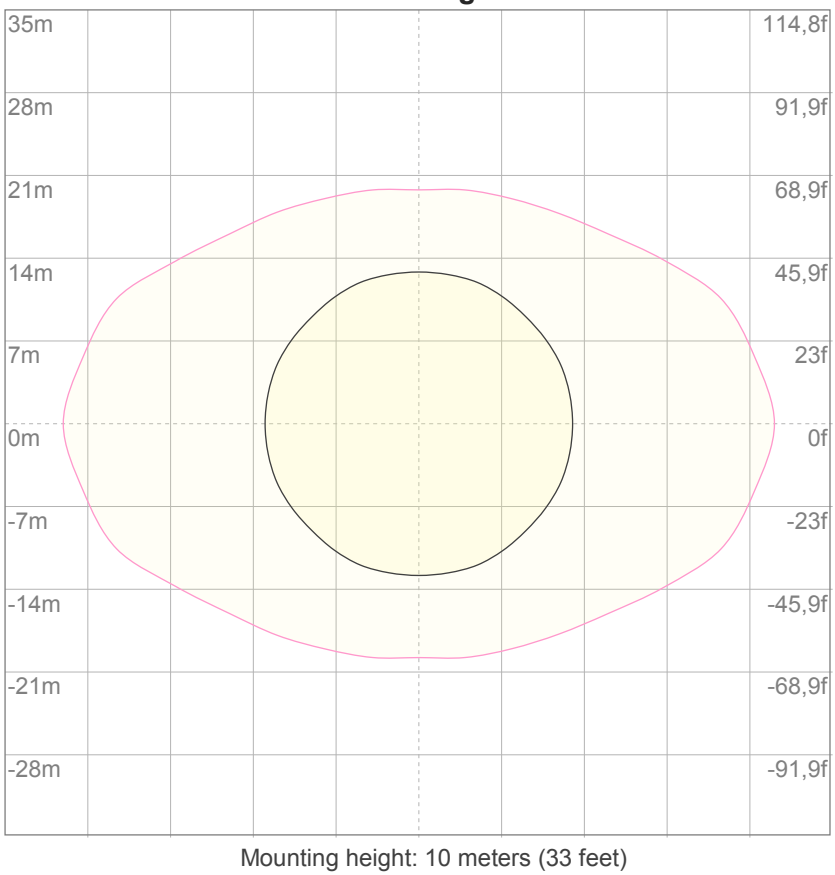

| | | |
|---|---|---|
| 10% | 33 cd |
| 20% | 67 cd |
| 30% | 100 cd |
| 40% | 133 cd |
| 50% | 167 cd |
| 60% | 200 cd |
| 70% | 234 cd |
| 80% | 267 cd |
| 90% | 300 cd |

Conditions:

Number of c-planes: 16

Candela at center: 334 cd

## ISO lux diagram




| | |
|---|---|
| 3% | 0,100 lx |
| 5% | 0,167 lx |
| 10% | 0,334 lx |
| 30% | 1,00 lx |
| 50% | 1,67 lx |

Conditions:

Number of c-planes: 16

Lux at center: 3,34 lx

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

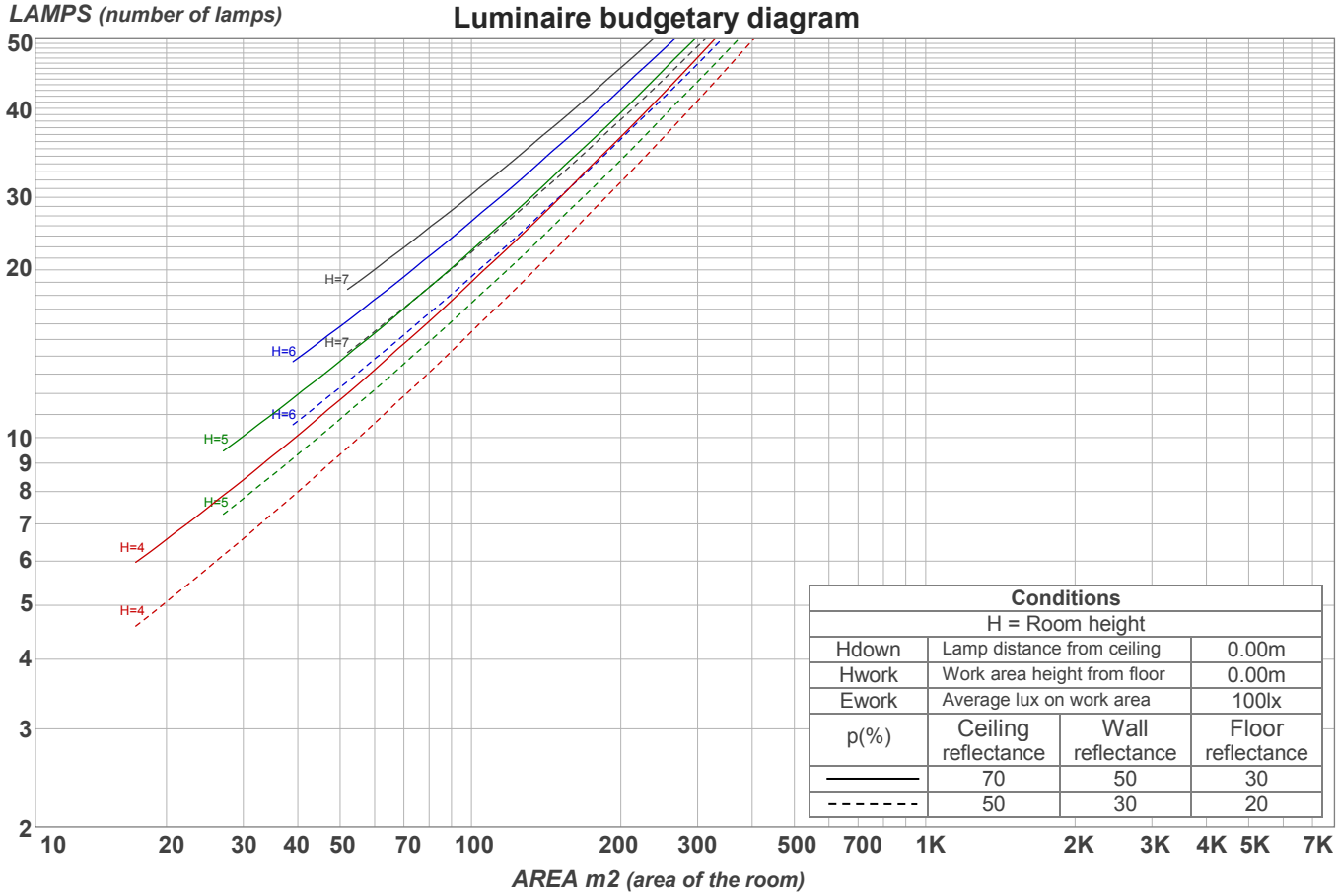
## Glare Evaluation According to UGR

| 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 | 21,7 | 22,9 | 21,9 | 23,2 | 23,5 | 22,3 | 23,6 | 22,6 | 23,9 | 24,1 |
| | 3H | 23,2 | 24,5 | 23,6 | 24,8 | 25,0 | 23,4 | 24,7 | 23,8 | 25,0 | 25,2 |
| | 4H | 24,0 | 25,2 | 24,4 | 25,5 | 25,8 | 23,9 | 25,1 | 24,3 | 25,4 | 25,6 |
| | 6H | 24,7 | 25,8 | 25,1 | 26,1 | 26,5 | 24,3 | 25,4 | 24,6 | 25,6 | 26,0 |
| | 8H | 25,0 | 26,1 | 25,4 | 26,4 | 26,8 | 24,4 | 25,4 | 24,7 | 25,7 | 26,1 |
| | 12H | 25,2 | 26,3 | 25,6 | 26,6 | 27,1 | 24,4 | 25,4 | 24,8 | 25,8 | 26,2 |
| 4H | 2H | 22,2 | 23,5 | 22,6 | 23,7 | 24,0 | 22,7 | 23,9 | 23,1 | 24,2 | 24,5 |
| | 3H | 24,1 | 25,1 | 24,5 | 25,5 | 25,9 | 24,1 | 25,2 | 24,5 | 25,5 | 26,0 |
| | 4H | 24,9 | 25,9 | 25,4 | 26,3 | 26,9 | 24,6 | 25,6 | 25,1 | 26,0 | 26,6 |
| | 6H | 25,8 | 26,7 | 26,3 | 27,1 | 27,4 | 25,1 | 26,0 | 25,6 | 26,4 | 26,7 |
| | 8H | 26,1 | 27,0 | 26,6 | 27,3 | 27,7 | 25,2 | 26,1 | 25,7 | 26,4 | 26,8 |
| | 12H | 26,5 | 27,2 | 27,0 | 27,6 | 28,1 | 25,3 | 26,0 | 25,8 | 26,5 | 27,0 |
| 8H | 4H | 25,2 | 26,1 | 25,7 | 26,4 | 26,8 | 25,0 | 25,8 | 25,5 | 26,2 | 26,5 |
| | 6H | 26,3 | 26,9 | 26,8 | 27,4 | 27,9 | 25,6 | 26,2 | 26,1 | 26,7 | 27,2 |
| | 8H | 26,8 | 27,3 | 27,3 | 27,9 | 28,5 | 25,8 | 26,4 | 26,3 | 26,9 | 27,6 |
| | 12H | 27,2 | 27,7 | 27,8 | 28,2 | 28,8 | 26,0 | 26,5 | 26,6 | 27,0 | 27,6 |
| 12H | 4H | 25,2 | 25,9 | 25,7 | 26,4 | 26,8 | 25,0 | 25,7 | 25,5 | 26,1 | 26,6 |
| | 6H | 26,4 | 26,9 | 26,9 | 27,4 | 28,1 | 25,7 | 26,3 | 26,2 | 26,8 | 27,4 |
| | 8H | 26,9 | 27,4 | 27,5 | 27,9 | 28,5 | 26,0 | 26,5 | 26,6 | 27,0 | 27,6 |
| Variation of the observer position for the luminaire distance S | | | | | | | | | | | |
| S = 1.0H | | 0,1 / -0,1 | | | | | 0,1 / -0,1 | | | | |
| S = 1.5H | | 0,1 / -0,2 | | | | | 0,3 / -0,3 | | | | |
| S = 2.0H | | 0,3 / -0,4 | | | | | 0,7 / -0,8 | | | | |
| Standard table | | n/a | | | | | n/a | | | | |
| Correction summand | | n/a | | | | | n/a | | | | |
| Corrected glare indices referring to 967 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 | 103 | 103 | 103 | 98 | 98 | 98 | 96 |
| 1 | 107 | 102 | 97 | 93 | 104 | 99 | 95 | 91 | 94 | 91 | 88 | 90 | 87 | 84 | 85 | 83 | 81 | 79 |
| 2 | 97 | 89 | 81 | 75 | 94 | 86 | 80 | 74 | 82 | 77 | 72 | 78 | 74 | 70 | 75 | 71 | 68 | 65 |
| 3 | 89 | 78 | 69 | 63 | 86 | 76 | 68 | 62 | 72 | 66 | 60 | 69 | 63 | 59 | 66 | 61 | 57 | 55 |
| 4 | 81 | 69 | 60 | 53 | 78 | 67 | 59 | 53 | 64 | 57 | 51 | 62 | 55 | 50 | 59 | 54 | 49 | 47 |
| 5 | 75 | 62 | 53 | 46 | 72 | 60 | 52 | 45 | 58 | 50 | 45 | 55 | 49 | 44 | 53 | 47 | 43 | 41 |
| 6 | 69 | 56 | 47 | 40 | 67 | 54 | 46 | 40 | 52 | 45 | 39 | 50 | 44 | 38 | 48 | 42 | 38 | 36 |
| 7 | 64 | 50 | 42 | 35 | 62 | 49 | 41 | 35 | 48 | 40 | 35 | 46 | 39 | 34 | 44 | 38 | 34 | 32 |
| 8 | 60 | 46 | 38 | 32 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 30 | 28 |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 37 | 32 | 27 | 25 |
| 10 | 52 | 39 | 31 | 26 | 51 | 38 | 31 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | 23 |

## Luminaire budgetary diagram

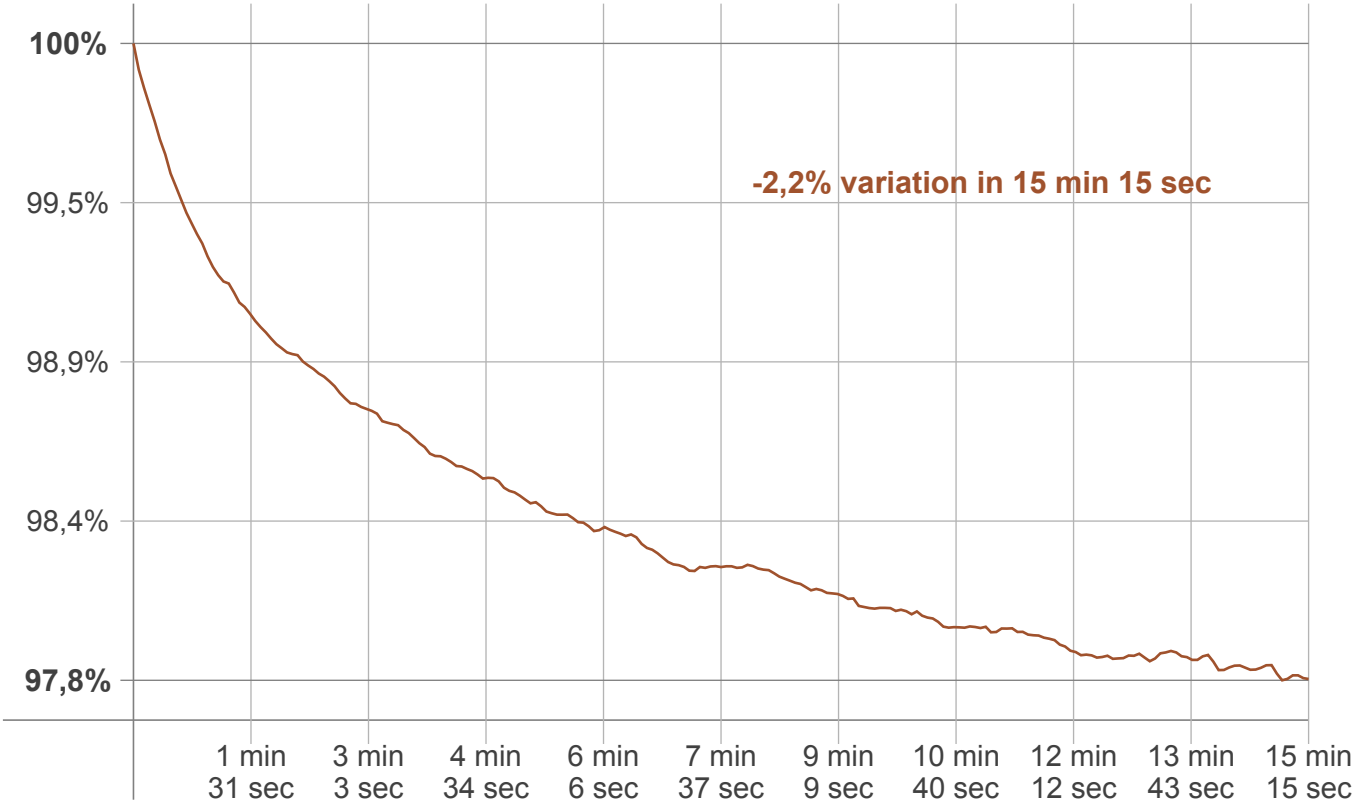



## Zonal Lumen Summary

| 0°-10° | 10°-20° | 20°-30° | 30°-40° | 40°-50° | 50°-60° | 60°-70° | 70°-80° | 80°-90° |
|---|---|---|---|---|---|---|---|---|
| 31,2 lm | 87,5 lm | 137 lm | 159 lm | 160 lm | 136 lm | 107 lm | 71,3 lm | 40,2 lm |

| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
|---|---|---|---|---|---|---|---|---|
| 5,49 lm | 9,56 lm | 3,36 lm | 3,04 lm | 1,42 lm | 0,407 lm | 0,300 lm | 0,184 lm | 14,1 lm |

## Warmup curve




## Warmup result

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

## Warmup conditions

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

## Color temperature change

| CCT start | CCT change | CCT end |
|---|---|---|
| 4032 K | +14 K | 4046 K |

## Output change

| Output start | Output change | Output end |
|---|---|---|
| 984 lm | -18 lm | 967 lm |