

#### Light efficiency:

**109 Lumen/Watt**

#### Light quality:

**CRI: 92,2**

#### Color temperature:

**5483 K**

**Output: 1072 lm**

**Peak: 594 cd**

**Power: 9,8 W**

**PF: 1,0**



#### Product name:

**Pegasus-4-0508-956-L6T**

#### Item number:

**FLNP/L/09D0508/956/L6T**

#### Date and time:

**08.04.2021 12:33:36**

#### Description:

**Rank: G7-2G0**

**Toleranzen:**

**Lumen +/-4%**

**Candela +/-2,5%**

**Colour Temp +/-35 K**

**CRI +/-0,7**

**Angular Resolution 1 Grad step**

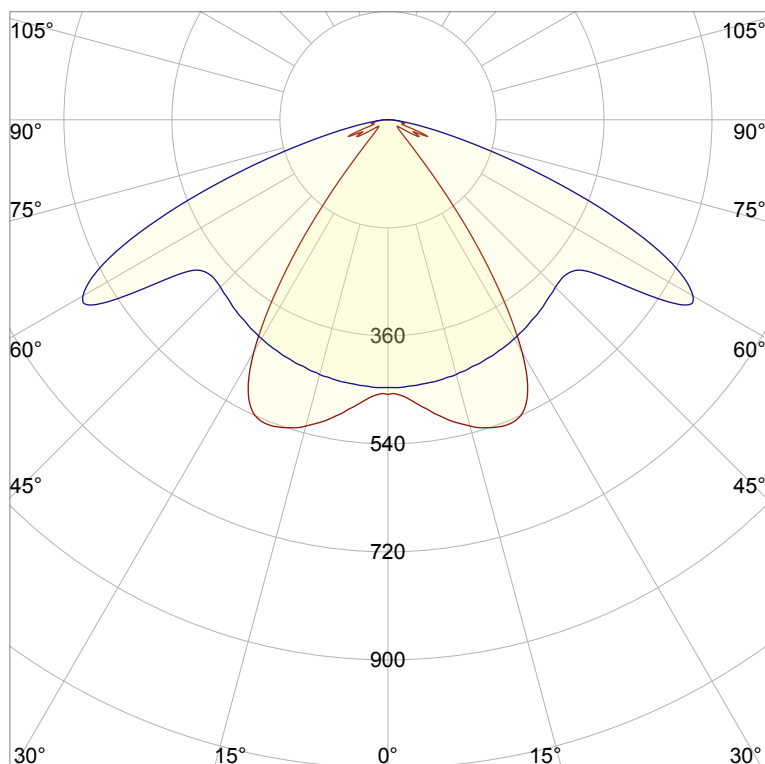
**Last Calibration 20-05-2020**

**Pruefer: Peter Ulrich**

**Pruefort: Lichtlabor**

**Gaustrasse 13**

**55411 Bingen am Rhein**

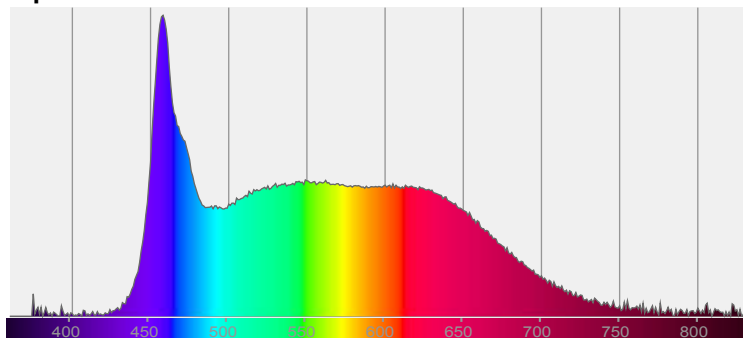


**CIE 1931**

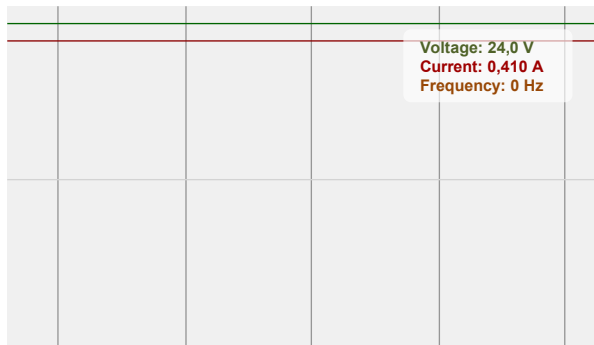
**x: 0,333**

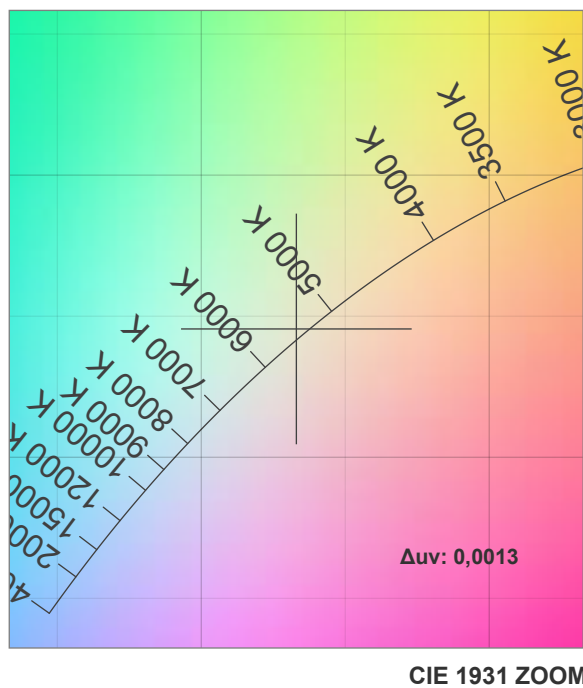
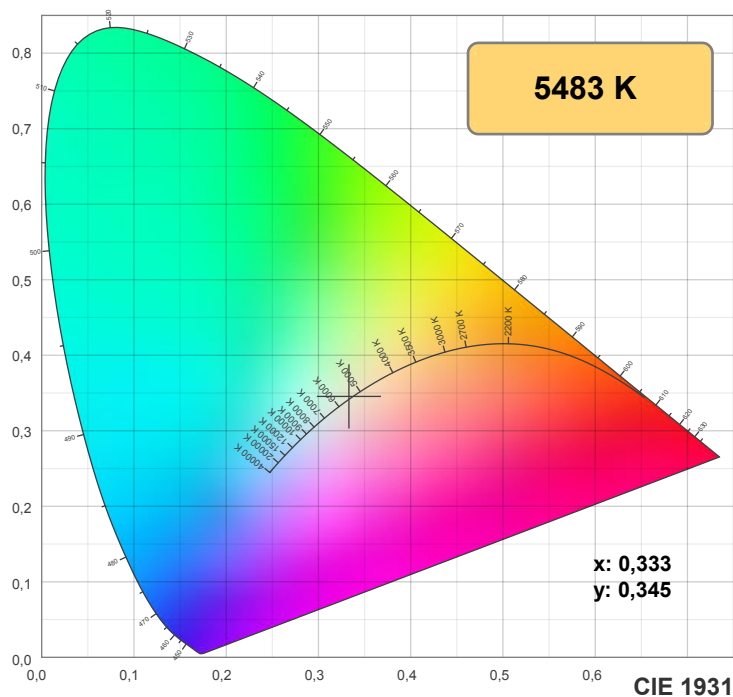
**y: 0,345**

#### Spectra

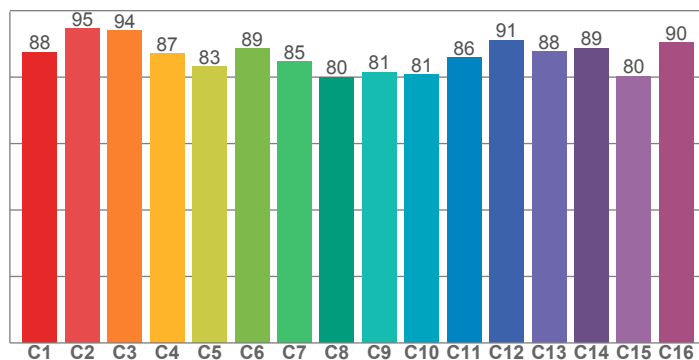


#### Power

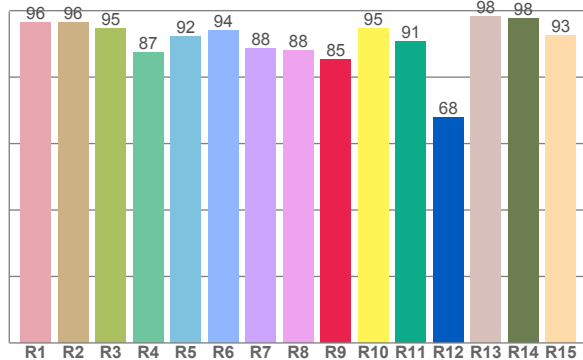




**TM30: 86,5**



**CRI: 92,2 (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  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 96,4 | 96,4 | 94,8 | 87,4 | 92,1 | 94,0 | 88,5 | 88,1 | 85,2 | 94,7 | 90,8 | 67,9 | 98,3 | 97,7 | 92,6 |

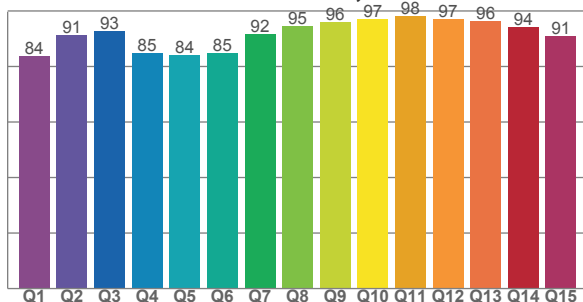
**TM30 C values, 16 binned values out of total of 99 C values**

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 87,6 | 94,5 | 93,9 | 87,2 | 83,2 | 88,6 | 84,6 | 80,0 | 81,5 | 80,8 | 86,0 | 91,1 | 87,7 | 88,7 | 80,3 | 90,4 |

**CQS Q values**

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 83,9 | 91,5 | 92,7 | 84,9 | 84,2 | 84,8 | 91,8 | 94,5 | 95,9 | 97,0 | 98,2 | 97,1 | 96,3 | 94,4 | 91,0 |

**CQS: 90,5**



## 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                             |
| 5483 K            | 92,2                  | 85,2          | 86,5           | 94,2        | 90,5                | 0,333                     | 0,345                     | 0,206            | 0,320            | 0,0013                          |

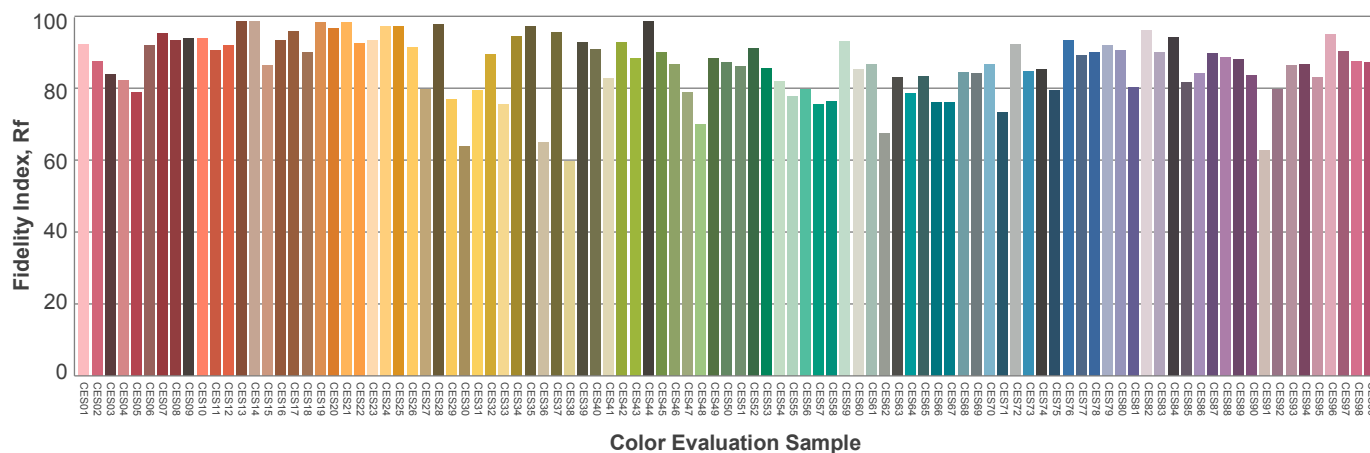
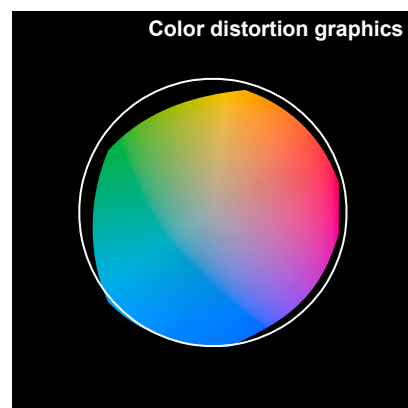
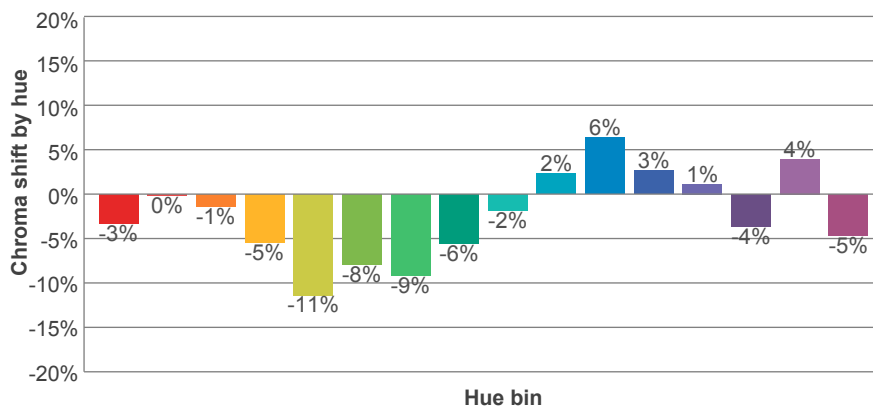
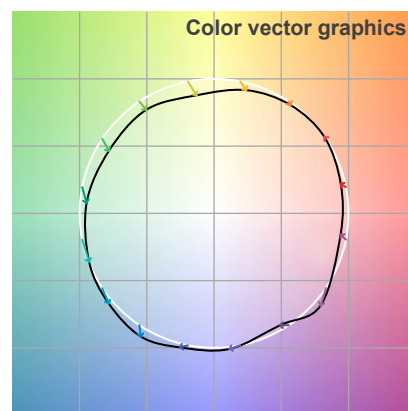
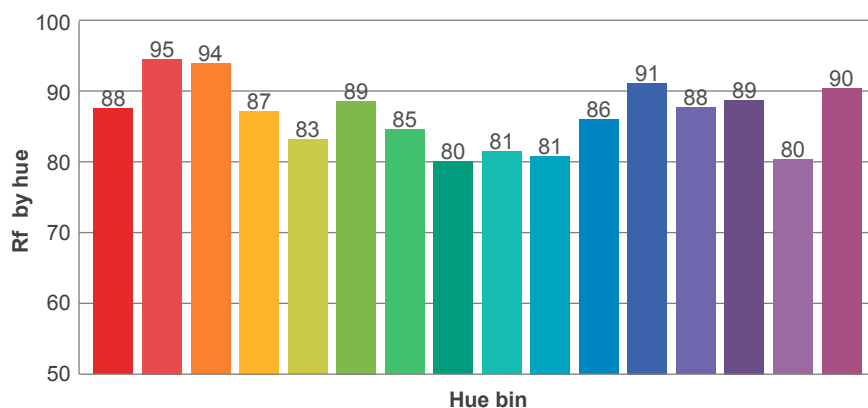
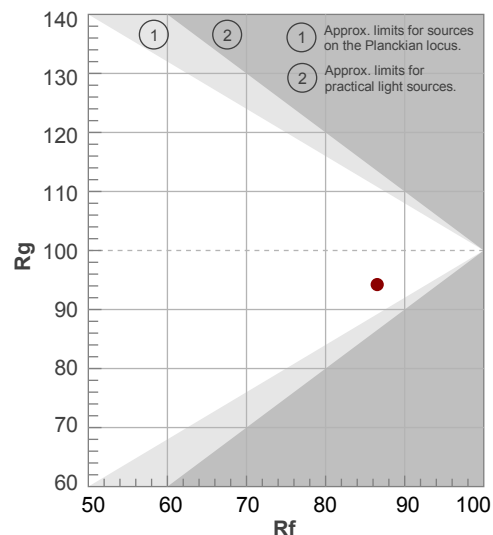
## Rf 86,5

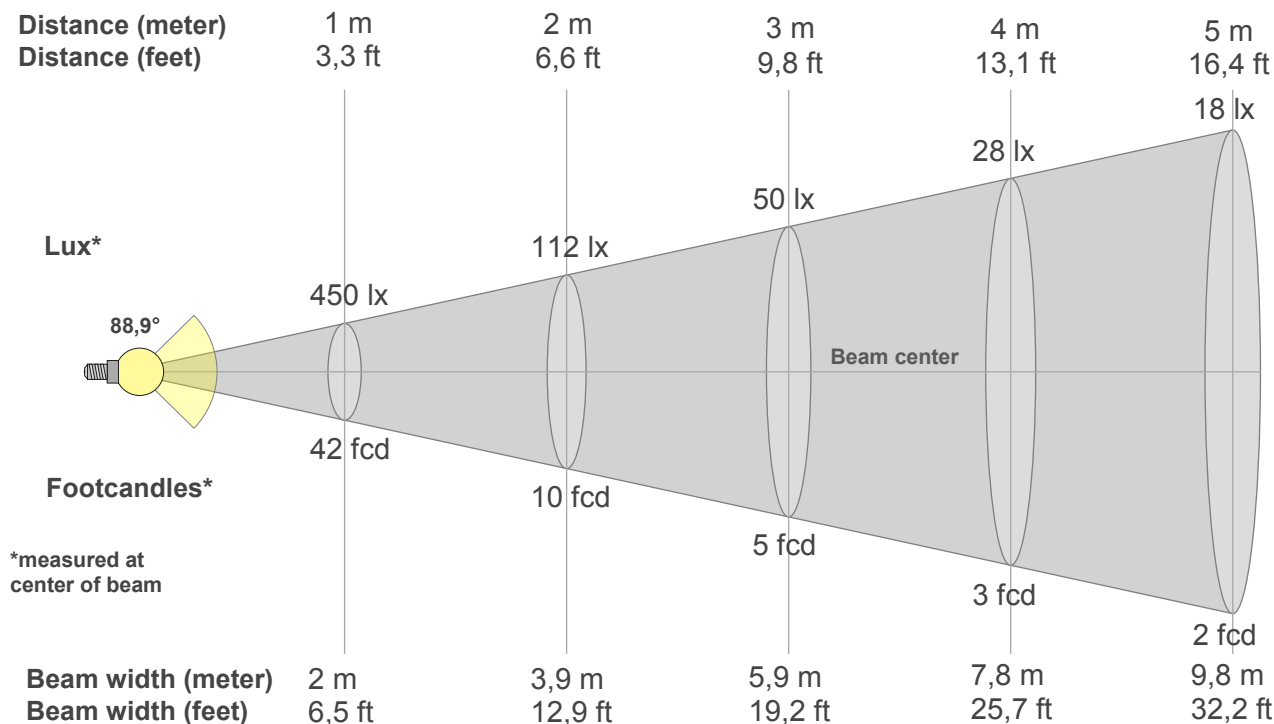
Fidelity index Rf

## Rg 94,2

Gamut index Rg

| Hue Bin | R <sub>f</sub> | Graphic shifts (%) |      |
|---------|----------------|--------------------|------|
|         |                | Chroma             | Hue  |
| 1       | 88             | -3%                | 3%   |
| 2       | 95             | 0%                 | 2%   |
| 3       | 94             | -1%                | -3%  |
| 4       | 87             | -5%                | -6%  |
| 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 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 |
| 450lx   | 112lx   | 50lx   | 28lx   | 18lx   | 12lx   | 9lx    | 7lx    | 6lx    | 4lx    | 4lx    | 3lx    | 3lx    | 2lx    | 2lx    | 2lx    | 2lx    | 1lx    | 1lx    | 1lx    |
| 41,8fcd | 10,5fcd | 4,6fcd | 2,6fcd | 1,7fcd | 1,2fcd | 0,9fcd | 0,7fcd | 0,5fcd | 0,4fcd | 0,3fcd | 0,3fcd | 0,2fcd | 0,2fcd | 0,2fcd | 0,2fcd | 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° |
|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 450  | 471  | 501  | 528  | 544  | 535  | 446 | 267 | 91  | 34  | 22  | 19  | 49  | 49  | 39  | 25  | 24  | 14  | 3   | 0   |
| 100% | 105% | 111% | 117% | 121% | 119% | 99% | 59% | 20% | 8%  | 5%  | 4%  | 11% | 11% | 9%  | 6%  | 5%  | 3%  | 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° |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|-----|-----|-----|-----|-----|-----|
| 450  | 445 | 443 | 439 | 434 | 428 | 421 | 412 | 404 | 395 | 396 | 481  | 586  | 474  | 284 | 128 | 47  | 13  | 1   | 1   |
| 100% | 99% | 99% | 98% | 96% | 95% | 94% | 92% | 90% | 88% | 88% | 107% | 130% | 105% | 63% | 29% | 11% | 3%  | 0%  | 0%  |

## Intensities in 180° c-plane

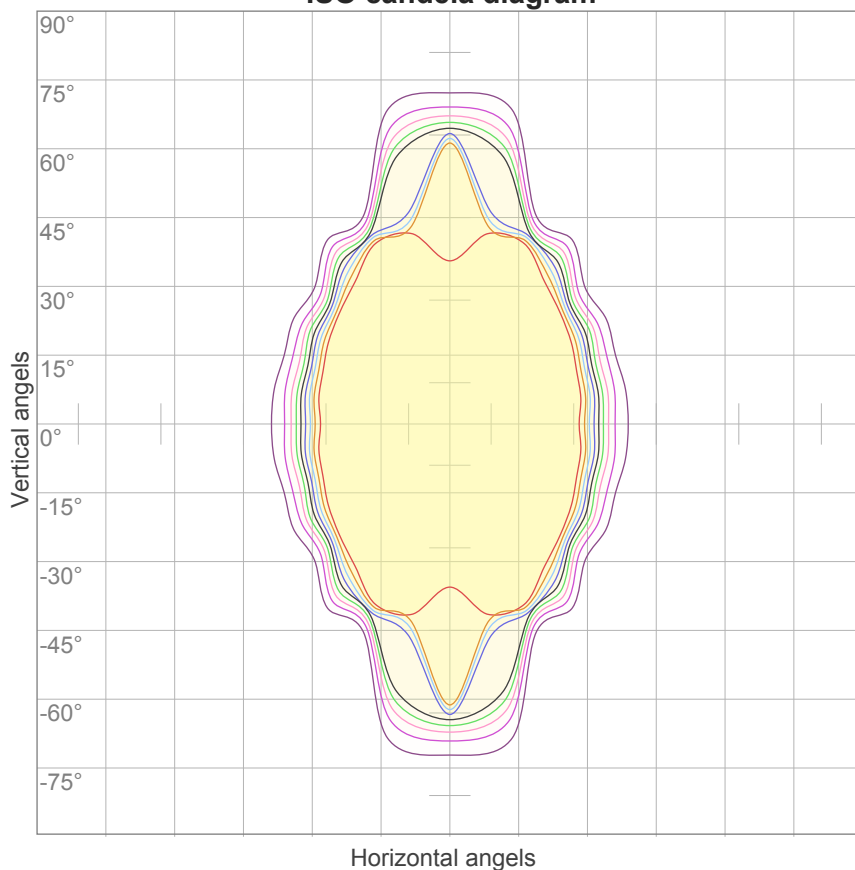
| 0°   | 5°   | 10°  | 15°  | 20°  | 25°  | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 450  | 471  | 501  | 528  | 544  | 535  | 446 | 267 | 91  | 34  | 22  | 19  | 49  | 49  | 39  | 25  | 24  | 14  | 3   | 0   |
| 100% | 105% | 111% | 117% | 121% | 119% | 99% | 59% | 20% | 8%  | 5%  | 4%  | 11% | 11% | 9%  | 6%  | 5%  | 3%  | 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° |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|-----|-----|-----|-----|-----|-----|
| 450  | 445 | 443 | 439 | 434 | 428 | 421 | 412 | 404 | 395 | 396 | 481  | 586  | 474  | 284 | 128 | 47  | 13  | 1   | 1   |
| 100% | 99% | 99% | 98% | 96% | 95% | 94% | 92% | 90% | 88% | 88% | 107% | 130% | 105% | 63% | 29% | 11% | 3%  | 0%  | 0%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 88,9°          | 121,3°          | 157,5°            | 86,5%                        | 72,7%                       |

### ISO candela diagram



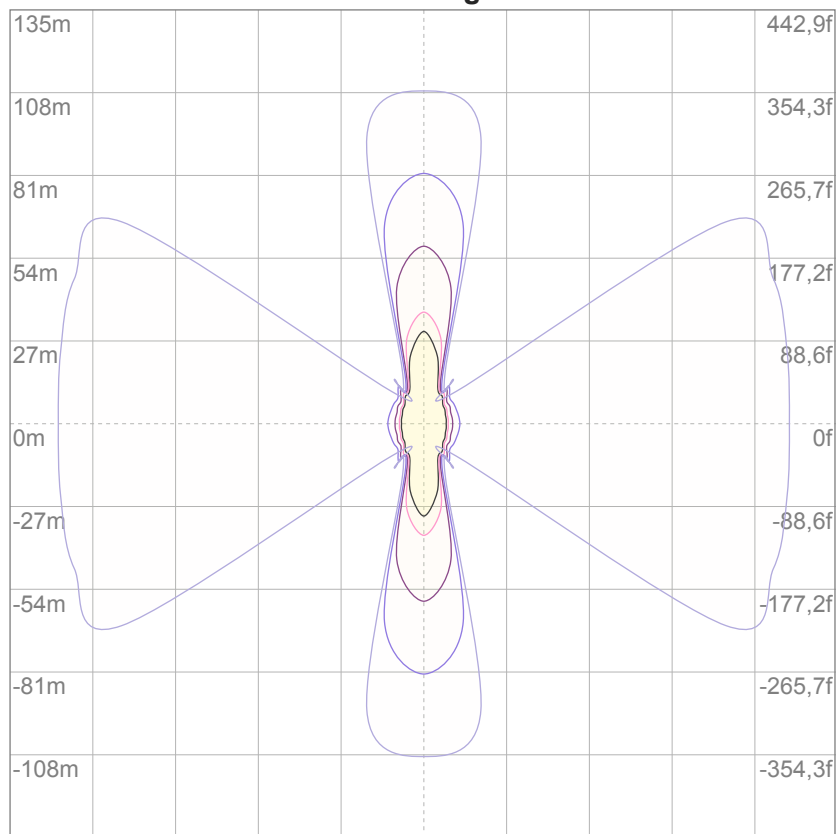
|     |        |
|-----|--------|
| 10% | 45 cd  |
| 20% | 90 cd  |
| 30% | 135 cd |
| 40% | 180 cd |
| 50% | 225 cd |
| 60% | 270 cd |
| 70% | 315 cd |
| 80% | 360 cd |
| 90% | 405 cd |

#### Conditions:

Number of c-planes: 16

Candela at center: 450 cd

### ISO lux diagram



|     |          |
|-----|----------|
| 3%  | 0,135 lx |
| 5%  | 0,225 lx |
| 10% | 0,450 lx |
| 30% | 1,35 lx  |
| 50% | 2,25 lx  |

#### Conditions:

Number of c-planes: 16

Lux at center: 4,50 lx

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

### Glare Evaluation According to UGR

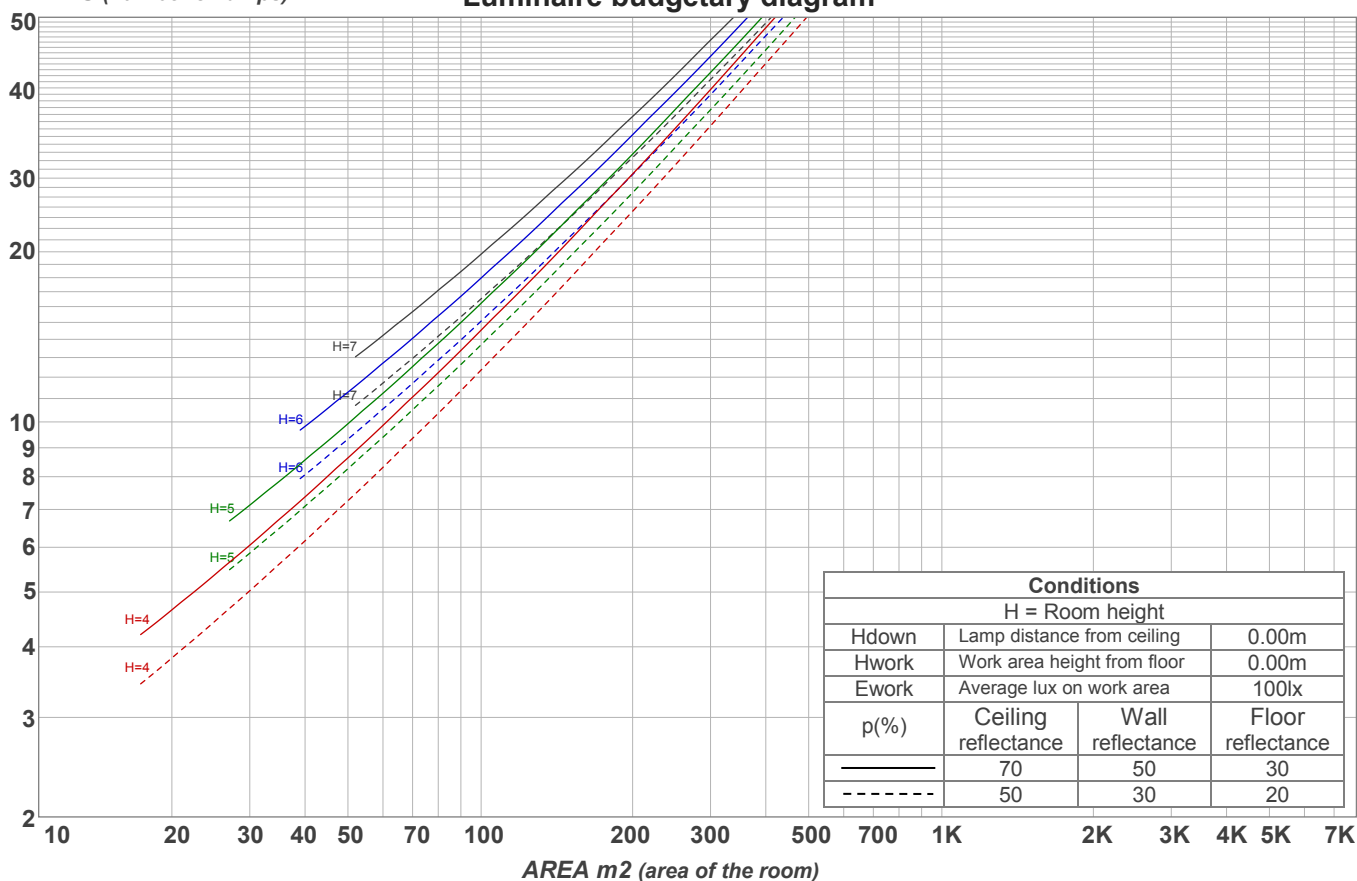
|  |     |   |      |      |      |      |   |      |      |      |      |
|--|-----|---|------|------|------|------|---|------|------|------|------|
| p Ceiling  |     | 70  | 70   | 50   | 50   | 30   | 70                                      | 70   | 50   | 50   | 30   |
| p Walls  |     | 50  | 30   | 50   | 30   | 30   | 50                                      | 30   | 50   | 30   | 30   |
| p Floor  |     | 20  | 20   | 20   | 20   | 20   | 20                                      | 20   | 20   | 20   | 20   |
| Room size<br>X      Y  |     | Viewing direction at right angles to<br>lamp axis |      |      |      |      | Viewing direction parallel to lamp axis |      |      |      |      |
| 2H   | 2H  | 15,7  | 16,7 | 15,9 | 17,0 | 17,2 | 26,9                                    | 28,0 | 27,1 | 28,2 | 28,4 |
|  | 3H  | 17,4  | 18,5 | 17,8 | 18,8 | 19,0 | 29,0                                    | 30,1 | 29,4 | 30,3 | 30,5 |
|  | 4H  | 17,7  | 18,7 | 18,1 | 19,0 | 19,2 | 29,4                                    | 30,4 | 29,8 | 30,7 | 30,9 |
|  | 6H  | 18,2  | 19,1 | 18,5 | 19,4 | 19,7 | 29,6                                    | 30,5 | 29,9 | 30,8 | 31,2 |
|  | 8H  | 18,4  | 19,2 | 18,7 | 19,6 | 20,0 | 29,6                                    | 30,5 | 29,9 | 30,8 | 31,2 |
|  | 12H | 18,5  | 19,3 | 18,9 | 19,7 | 20,1 | 29,6                                    | 30,4 | 29,9 | 30,8 | 31,2 |
| 4H   | 2H  | 15,7  | 16,8 | 16,1 | 17,0 | 17,3 | 26,6                                    | 27,6 | 27,0 | 27,9 | 28,1 |
|  | 3H  | 17,9  | 18,7 | 18,3 | 19,1 | 19,5 | 28,8                                    | 29,6 | 29,2 | 30,0 | 30,4 |
|  | 4H  | 18,2  | 19,0 | 18,6 | 19,4 | 19,9 | 29,2                                    | 29,9 | 29,6 | 30,4 | 30,9 |
|  | 6H  | 18,8  | 19,6 | 19,3 | 19,9 | 20,3 | 29,3                                    | 30,1 | 29,8 | 30,4 | 30,8 |
|  | 8H  | 19,1  | 19,8 | 19,6 | 20,2 | 20,5 | 29,4                                    | 30,0 | 29,9 | 30,4 | 30,8 |
|  | 12H | 19,3  | 19,9 | 19,8 | 20,3 | 20,7 | 29,3                                    | 29,9 | 29,8 | 30,3 | 30,8 |
| 8H   | 4H  | 18,3  | 19,0 | 18,8 | 19,4 | 19,8 | 29,1                                    | 29,7 | 29,6 | 30,1 | 30,5 |
|  | 6H  | 19,2  | 19,7 | 19,7 | 20,1 | 20,7 | 29,2                                    | 29,8 | 29,8 | 30,2 | 30,8 |
|  | 8H  | 19,6  | 20,0 | 20,1 | 20,6 | 21,2 | 29,3                                    | 29,7 | 29,8 | 30,3 | 30,9 |
|  | 12H | 19,9  | 20,3 | 20,5 | 20,8 | 21,4 | 29,3                                    | 29,7 | 29,9 | 30,2 | 30,8 |
| 12H  | 4H  | 18,3  | 18,9 | 18,8 | 19,3 | 19,8 | 29,0                                    | 29,6 | 29,5 | 30,0 | 30,5 |
|  | 6H  | 19,2  | 19,7 | 19,7 | 20,2 | 20,8 | 29,2                                    | 29,7 | 29,8 | 30,2 | 30,8 |
|  | 8H  | 19,7  | 20,1 | 20,3 | 20,6 | 21,2 | 29,3                                    | 29,6 | 29,9 | 30,1 | 30,7 |
| Variation of the observer position for the luminaire distance S  |     |   |      |      |      |      |   |      |      |      |      |
| S = 1.0H   |     | 1,3 / -0,6  |      |      |      |      | 1,3 / -2,1                              |      |      |      |      |
| S = 1.5H   |     | 2,7 / -1,5  |      |      |      |      | 2,7 / -5,2                              |      |      |      |      |
| S = 2.0H   |     | 4,1 / -2,0  |      |      |      |      | 4,3 / -8,0                              |      |      |      |      |
| Standard table   |     | n/a   |      |      |      |      | n/a                                     |      |      |      |      |
| Correction<br>summand  |     | n/a   |      |      |      |      | n/a                                     |      |      |      |      |
| Corrected glare indices referring to 1072 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                   | 119  | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 101 | 101 | 101 | 99 |
| 1                   | 110  | 106 | 103 | 99  | 108 | 104 | 101 | 98  | 100 | 97  | 95  | 96  | 94  | 92  | 92  | 90  | 89  | 87 |
| 2                   | 102  | 95  | 89  | 84  | 99  | 93  | 88  | 83  | 90  | 85  | 81  | 86  | 83  | 79  | 83  | 80  | 78  | 76 |
| 3                   | 94   | 85  | 78  | 73  | 92  | 84  | 77  | 72  | 81  | 75  | 71  | 78  | 73  | 70  | 76  | 72  | 68  | 66 |
| 4                   | 88   | 77  | 70  | 64  | 85  | 76  | 69  | 63  | 73  | 67  | 62  | 71  | 66  | 61  | 69  | 64  | 61  | 59 |
| 5                   | 81   | 70  | 62  | 56  | 79  | 69  | 62  | 56  | 67  | 60  | 55  | 65  | 59  | 55  | 63  | 58  | 54  | 52 |
| 6                   | 76   | 64  | 56  | 50  | 74  | 63  | 56  | 50  | 61  | 55  | 50  | 60  | 54  | 49  | 58  | 53  | 49  | 47 |
| 7                   | 71   | 59  | 51  | 45  | 69  | 58  | 50  | 45  | 56  | 50  | 45  | 55  | 49  | 44  | 54  | 48  | 44  | 42 |
| 8                   | 66   | 54  | 46  | 41  | 65  | 53  | 46  | 41  | 52  | 45  | 41  | 51  | 45  | 40  | 50  | 44  | 40  | 38 |
| 9                   | 62   | 50  | 42  | 37  | 61  | 49  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 37  | 46  | 41  | 37  | 35 |
| 10                  | 59   | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 34  | 43  | 38  | 34  | 32 |

LAMPS (number of lamps)

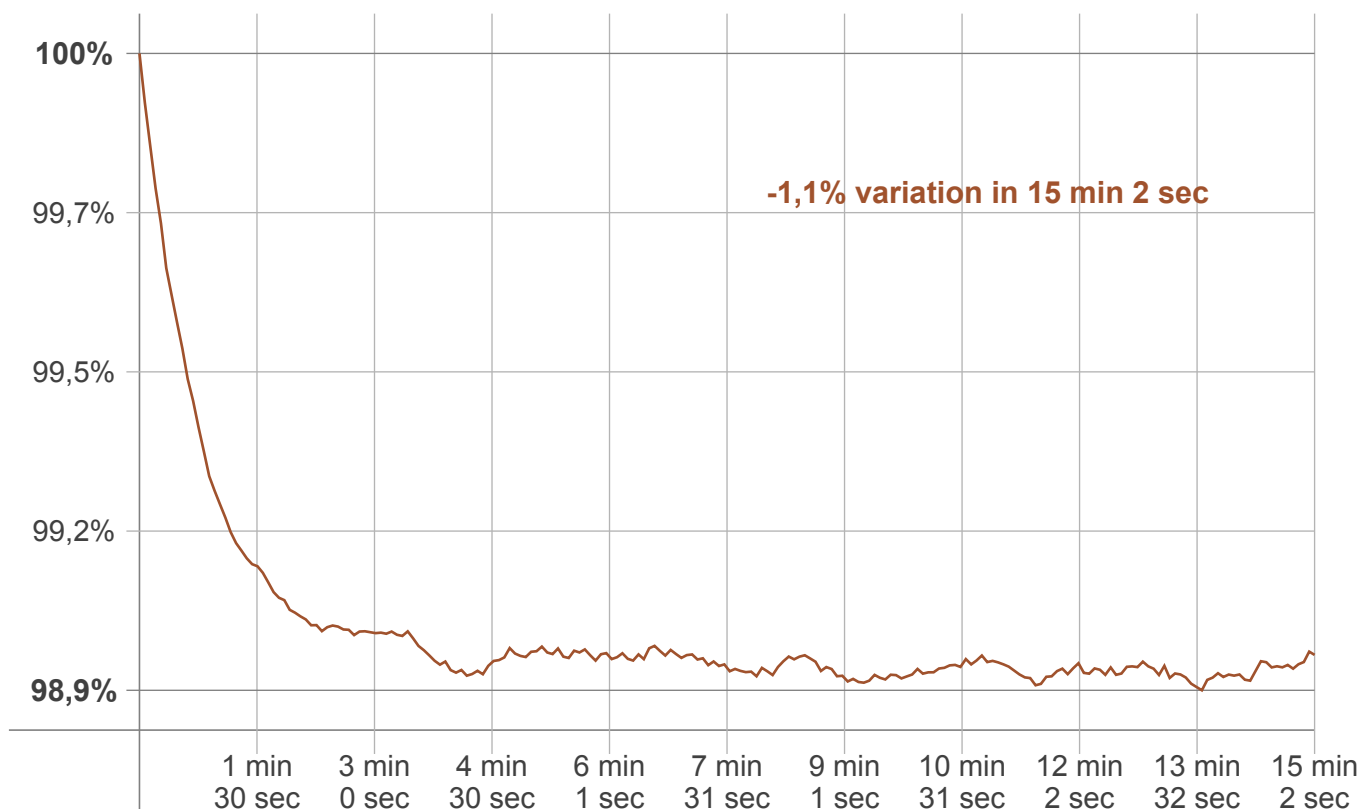
## Luminaire budgetary diagram



## Zonal Lumen Summary

| 0°-10°   | 10°-20°   | 20°-30°   | 30°-40°   | 40°-50°   | 50°-60°   | 60°-70°   | 70°-80°   | 80°-90°   |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 44,3 lm  | 140 lm    | 237 lm    | 262 lm    | 162 lm    | 81,5 lm   | 83,3 lm   | 38,2 lm   | 13,6 lm   |
| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 3,08 lm  | 1,41 lm   | 1,22 lm   | 1,10 lm   | 0,861 lm  | 0,650 lm  | 0,479 lm  | 0,293 lm  | 0,099 lm  |

### Warmup curve



### Warmup result

|                  |              |
|------------------|--------------|
| Warmup time:     | 15 min 2 sec |
| Warmup variation | -1,1%        |

### Warmup conditions

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

### Color temperature change

| CCT start | CCT change | CCT end |
|-----------|------------|---------|
| 5468 K    | +15 K      | 5483 K  |

### Output change

| Output start | Output change | Output end |
|--------------|---------------|------------|
| 1082 lm      | -9 lm         | 1072 lm    |