

Light efficiency:



Light quality:



Color temperature:

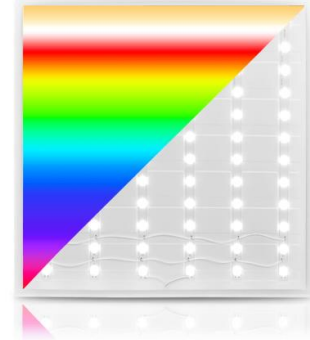


**Output: 85,6 lm**

**Peak: 29,3 cd**

**Power: 6,0 W**

**PF: 0,7**



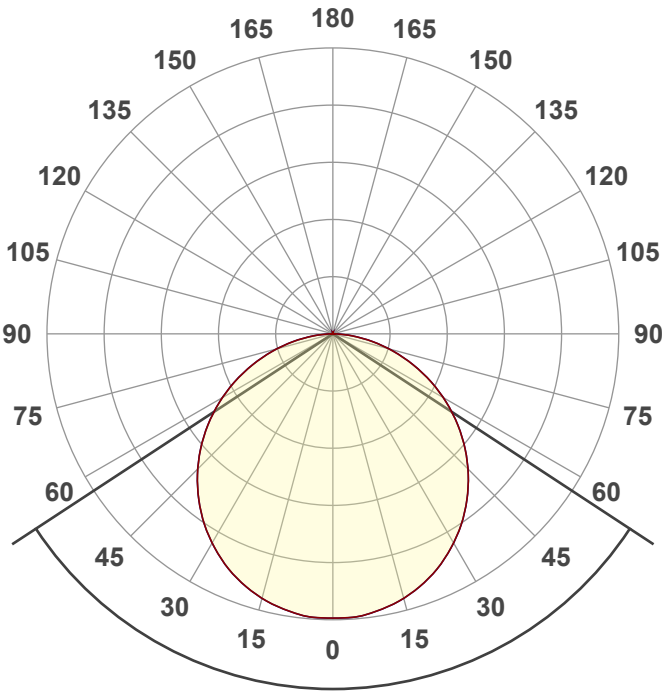
Tracking number: [VT240923-009889](#)

Product name:  
**274495-GROEN**

Item number:  
**274495-GROEN**

Date and time:  
**23-9-2024 13:30:14**

Description:  
**BACK-LIT LED PANEEL | DOVER |  
RGB+CCT | 30X30CM | 12W**

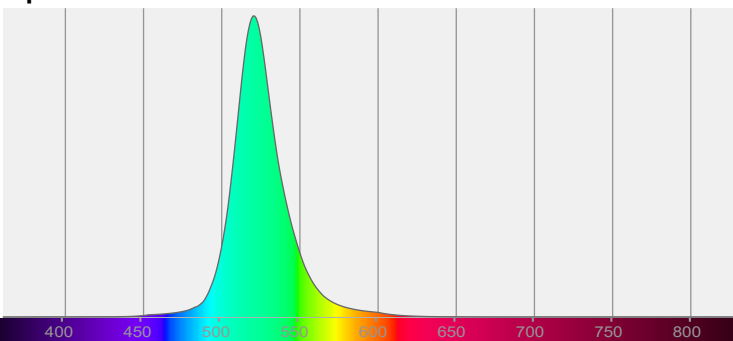


Beam angle **113,5°**

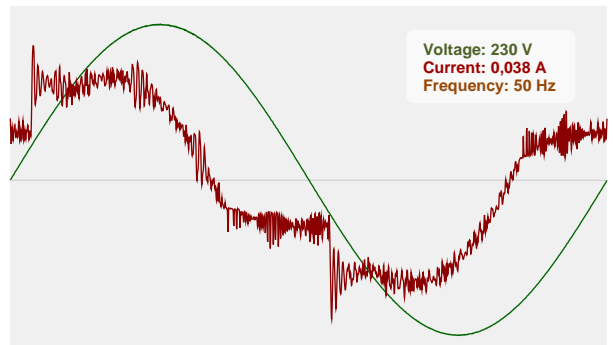


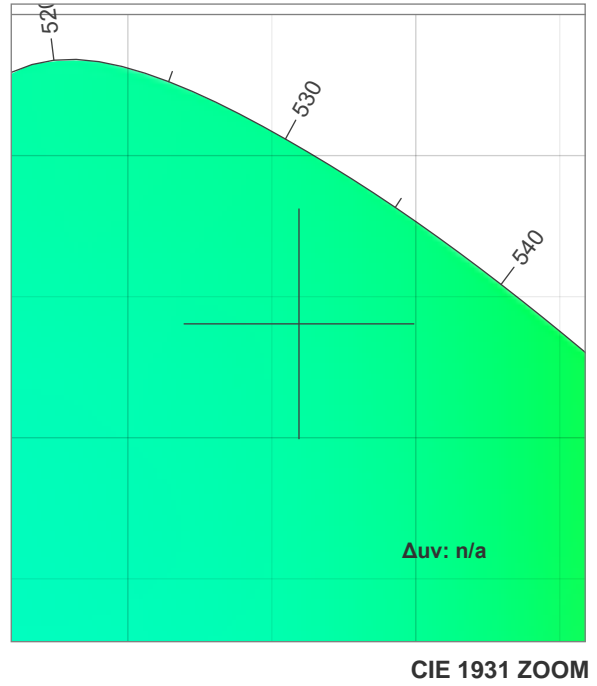
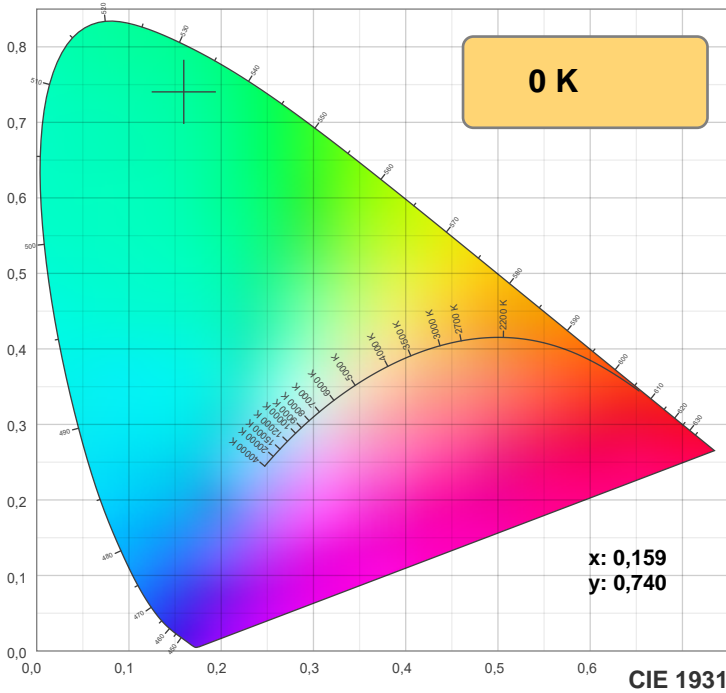
CIE 1931  
x: 0,159  
y: 0,740

Spectra



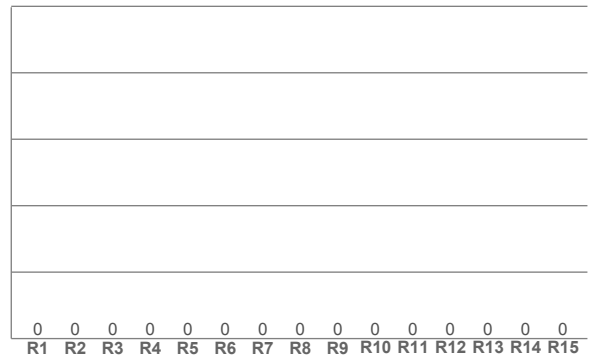
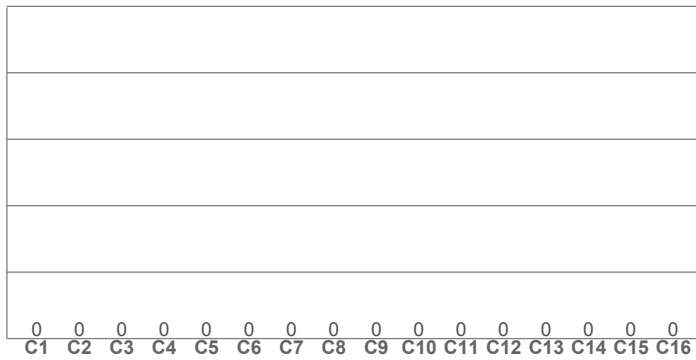
Power





TM-30: 0,0

CRI: 0,0 (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 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |

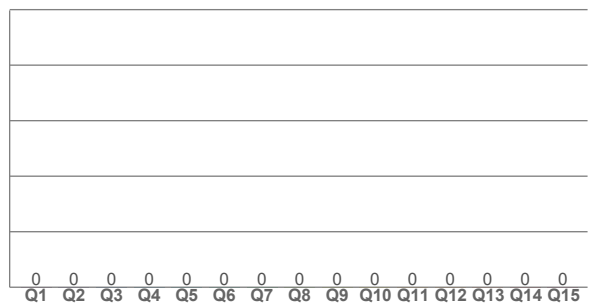
TM30 C values, 16 binned values out of total of 99 C values

| C1  | C2  | C3  | C4  | C5  | C6  | C7  | C8  | C9  | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |

CQS Q values

| Q1  | Q2  | Q3  | Q4  | Q5  | Q6  | Q7  | Q8  | Q9  | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |

CQS: 0,0



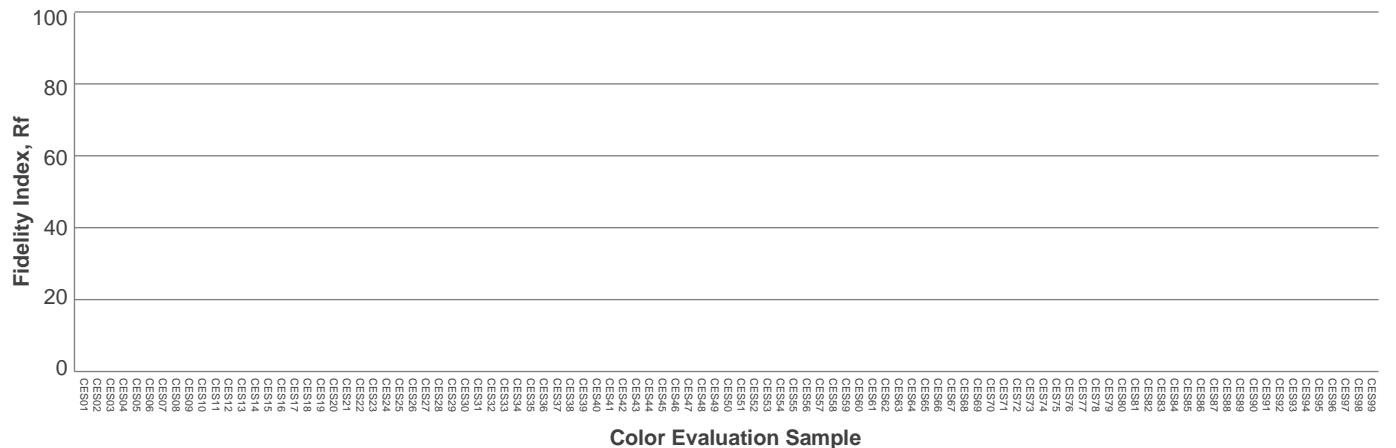
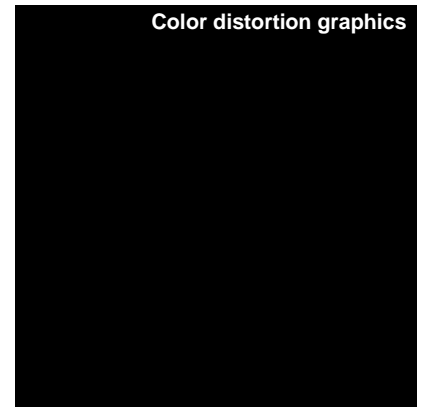
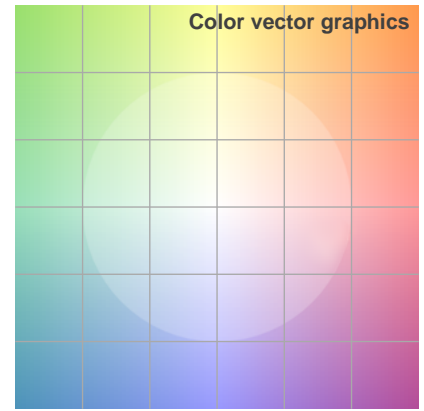
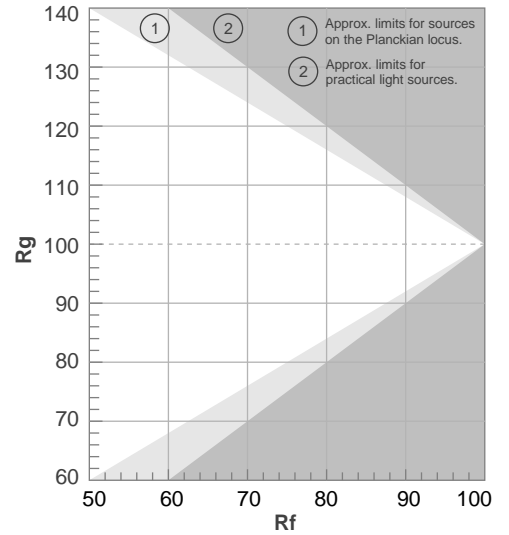
Color parameters

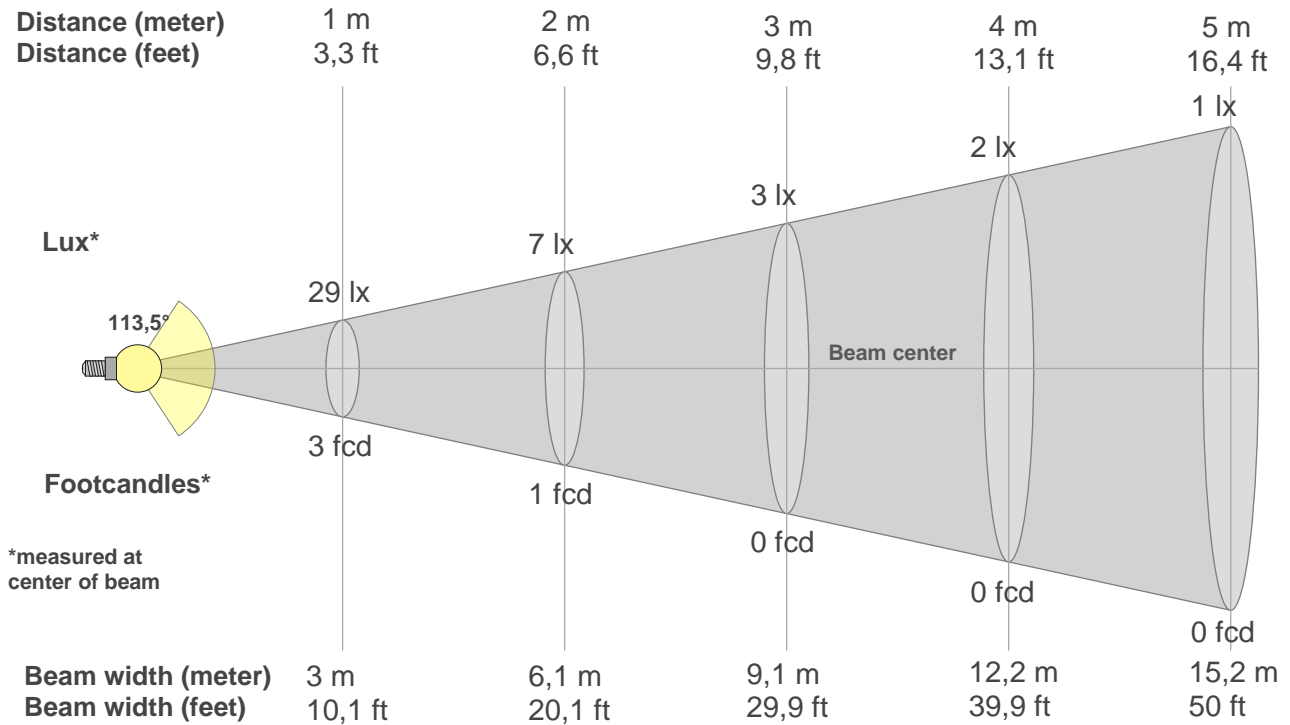
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color diviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT               | CRI                   | CRI R9        | TM30 Rf        | TM30 Rg     | CQS                 | x                         | y                         | u                | v                | Δuv                             |
| 0 K               | 0,0                   | 0,0           | 0,0            | 0,0         | 0,0                 | 0,159                     | 0,740                     | 0,055            | 0,384            | n/a                             |

**Rf 0,0**  
Fidelity index Rf

**Rg 0,0**  
Gamut index Rg

| Hue Bin | R <sub>f</sub> | Shifts (%) |     |
|---------|----------------|------------|-----|
|         |                | Chroma     | Hue |
| 1       | 0              | 0%         | 0%  |
| 2       | 0              | 0%         | 0%  |
| 3       | 0              | 0%         | 0%  |
| 4       | 0              | 0%         | 0%  |
| 5       | 0              | 0%         | 0%  |
| 6       | 0              | 0%         | 0%  |
| 7       | 0              | 0%         | 0%  |
| 8       | 0              | 0%         | 0%  |
| 9       | 0              | 0%         | 0%  |
| 10      | 0              | 0%         | 0%  |
| 11      | 0              | 0%         | 0%  |
| 12      | 0              | 0%         | 0%  |
| 13      | 0              | 0%         | 0%  |
| 14      | 0              | 0%         | 0%  |
| 15      | 0              | 0%         | 0%  |
| 16      | 0              | 0%         | 0%  |





**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 |
| 29lx   | 7lx    | 3lx    | 2lx    | 1lx    | 1lx    | 1lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    |
| 2,7fcd | 0,7fcd | 0,3fcd | 0,2fcd | 0,1fcd | 0,1fcd | 0,1fcd | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   |

**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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| 29,3 | 29,2 | 28,8 | 28,2 | 27,3 | 26,2 | 24,8 | 23,3 | 21,6 | 19,7 | 17,6 | 15,4 | 13,1 | 10,8 | 8,3 | 6,0 | 3,7 | 1,7 | 0,3 | 0,0 |
| 100% | 100% | 98%  | 96%  | 93%  | 90%  | 85%  | 80%  | 74%  | 67%  | 60%  | 53%  | 45%  | 37%  | 29% | 20% | 13% | 6%  | 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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| 29,3 | 29,2 | 28,8 | 28,2 | 27,3 | 26,2 | 24,8 | 23,3 | 21,6 | 19,7 | 17,6 | 15,4 | 13,1 | 10,8 | 8,3 | 6,0 | 3,7 | 1,7 | 0,3 | 0,0 |
| 100% | 100% | 98%  | 96%  | 93%  | 90%  | 85%  | 80%  | 74%  | 67%  | 60%  | 53%  | 45%  | 37%  | 29% | 20% | 13% | 6%  | 1%  | 0%  |

**Intensities in 180° c-plane**

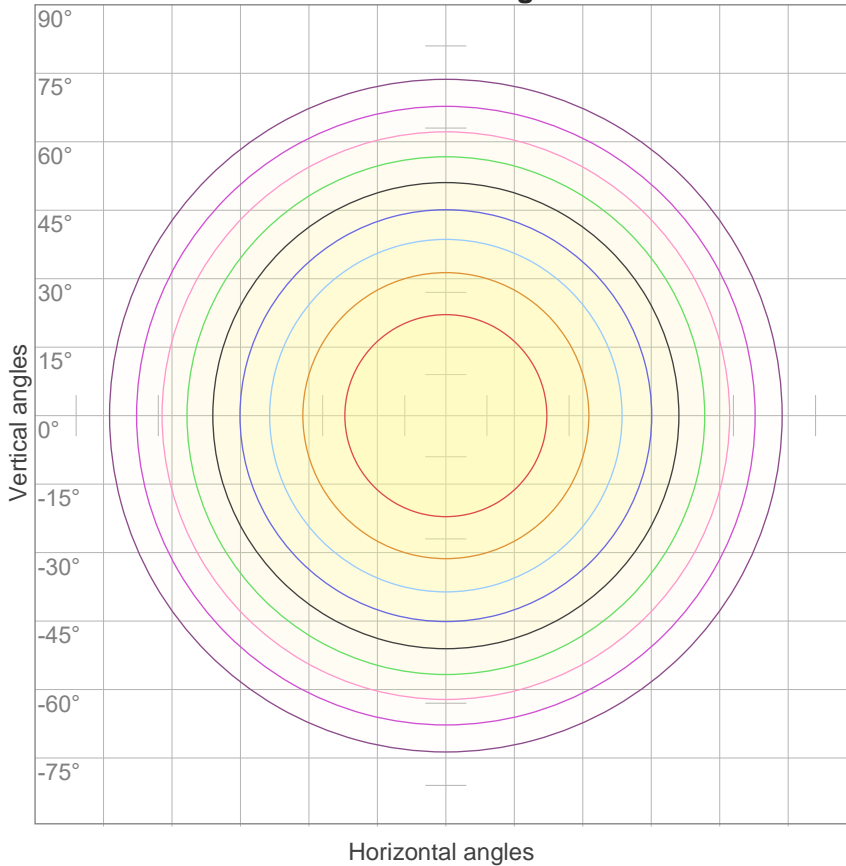
| 0°   | 5°   | 10°  | 15°  | 20°  | 25°  | 30°  | 35°  | 40°  | 45°  | 50°  | 55°  | 60°  | 65°  | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| 29,3 | 29,2 | 28,8 | 28,2 | 27,3 | 26,2 | 24,8 | 23,3 | 21,6 | 19,7 | 17,6 | 15,4 | 13,1 | 10,8 | 8,3 | 6,0 | 3,7 | 1,7 | 0,3 | 0,0 |
| 100% | 100% | 98%  | 96%  | 93%  | 90%  | 85%  | 80%  | 74%  | 67%  | 60%  | 53%  | 45%  | 37%  | 29% | 20% | 13% | 6%  | 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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| 29,3 | 29,2 | 28,8 | 28,2 | 27,3 | 26,2 | 24,8 | 23,3 | 21,6 | 19,7 | 17,6 | 15,4 | 13,1 | 10,8 | 8,3 | 6,0 | 3,7 | 1,7 | 0,3 | 0,0 |
| 100% | 100% | 98%  | 96%  | 93%  | 90%  | 85%  | 80%  | 74%  | 67%  | 60%  | 53%  | 45%  | 37%  | 29% | 20% | 13% | 6%  | 1%  | 0%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| <b>113,5°</b>  | <b>163,7°</b>   | <b>175,9°</b>     | <b>77,5%</b>                 | <b>52,6%</b>                |

**iso-candela diagram**



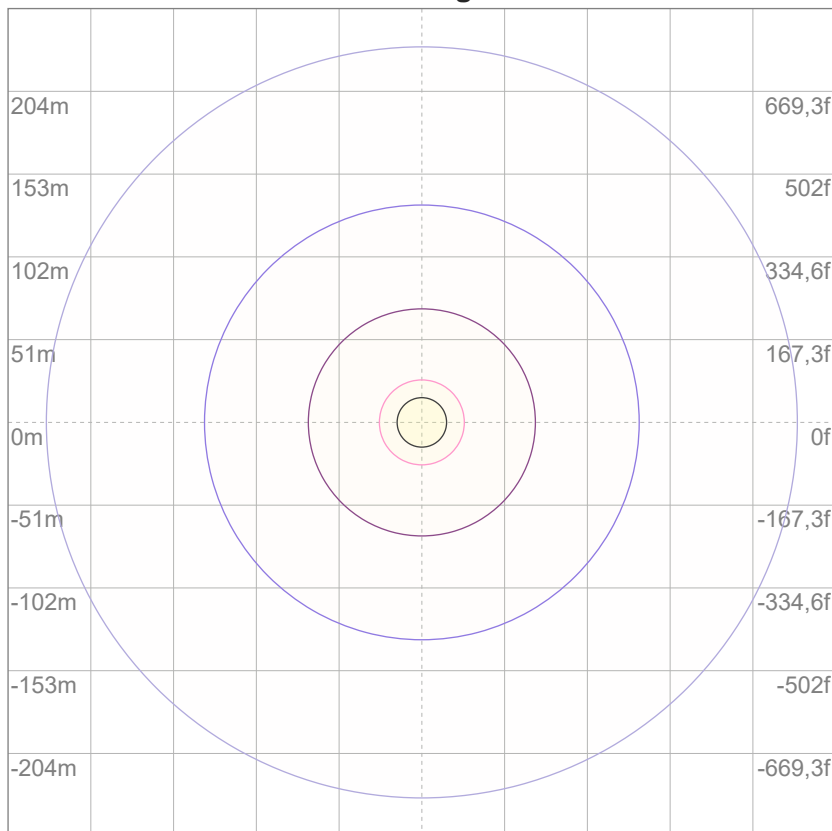
|     |       |
|-----|-------|
| 10% | 3 cd  |
| 20% | 6 cd  |
| 30% | 9 cd  |
| 40% | 12 cd |
| 50% | 15 cd |
| 60% | 18 cd |
| 70% | 20 cd |
| 80% | 23 cd |
| 90% | 26 cd |

Conditions:

Number of c-planes: 12

Candela at center: 29 cd

**iso-lux diagram**



|     |          |
|-----|----------|
| 3%  | 8,78m lx |
| 5%  | 14,6m lx |
| 10% | 29,3m lx |
| 30% | 87,8m lx |
| 50% | 0,146 lx |

Conditions:

Number of c-planes: 12

Lux at center: 0,293 lx

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

Mounting height: 10 meters (33 feet)

**Glare evaluation according to UGR**

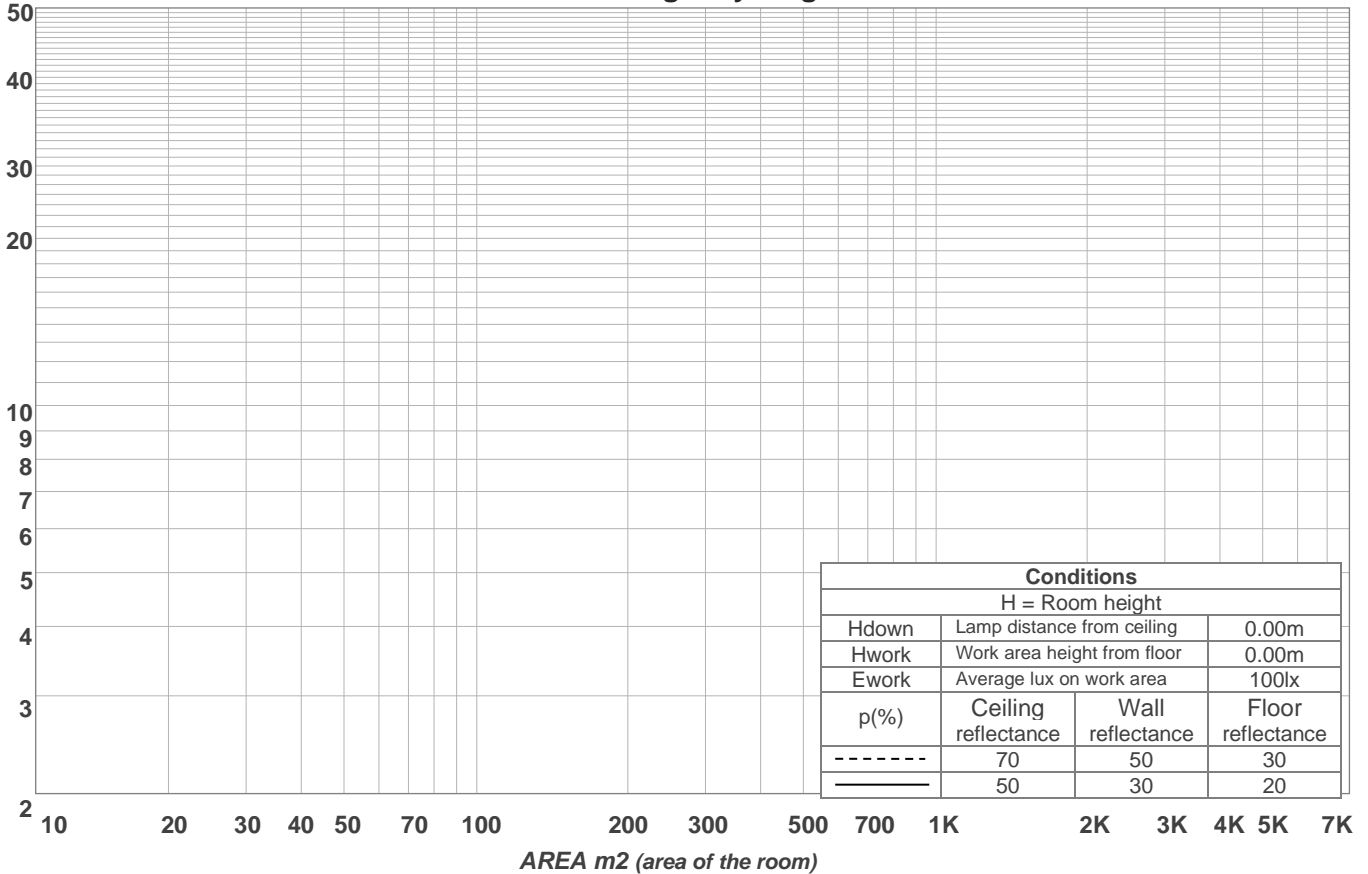
|  |  |      |      |      |      |   |      |      |      |      |      |
|--|--|------|------|------|------|---|------|------|------|------|------|
| p Ceiling  | 70   | 70   | 50   | 50   | 30   | 70                                      | 70   | 50   | 50   | 30   |      |
| p Walls  | 50   | 30   | 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 lamp axis |      |      |      |      | Viewing direction parallel to lamp axis |      |      |      |      |      |
| 2H   | 2H   | 9,3  | 10,5 | 9,5  | 10,8 | 11,1                                    | 9,3  | 10,5 | 9,5  | 10,8 | 11,1 |
|  | 3H   | 10,8 | 12,0 | 11,2 | 12,3 | 12,5                                    | 10,8 | 12,0 | 11,2 | 12,3 | 12,5 |
|  | 4H   | 11,4 | 12,6 | 11,8 | 12,9 | 13,2                                    | 11,4 | 12,6 | 11,8 | 12,9 | 13,2 |
|  | 6H   | 11,9 | 13,0 | 12,3 | 13,3 | 13,7                                    | 11,9 | 13,0 | 12,3 | 13,3 | 13,7 |
|  | 8H   | 12,1 | 13,1 | 12,4 | 13,4 | 13,9                                    | 12,1 | 13,1 | 12,4 | 13,4 | 13,9 |
|  | 12H  | 12,2 | 13,2 | 12,5 | 13,5 | 14,0                                    | 12,2 | 13,2 | 12,5 | 13,5 | 14,0 |
| 4H   | 2H   | 9,9  | 11,1 | 10,3 | 11,4 | 11,7                                    | 9,9  | 11,1 | 10,3 | 11,4 | 11,7 |
|  | 3H   | 11,7 | 12,7 | 12,1 | 13,0 | 13,5                                    | 11,7 | 12,7 | 12,1 | 13,0 | 13,5 |
|  | 4H   | 12,4 | 13,3 | 12,8 | 13,7 | 14,3                                    | 12,4 | 13,3 | 12,8 | 13,7 | 14,3 |
|  | 6H   | 12,9 | 13,8 | 13,5 | 14,2 | 14,6                                    | 12,9 | 13,8 | 13,5 | 14,2 | 14,6 |
|  | 8H   | 13,1 | 14,0 | 13,7 | 14,3 | 14,7                                    | 13,1 | 14,0 | 13,7 | 14,3 | 14,7 |
|  | 12H  | 13,3 | 14,0 | 13,8 | 14,4 | 14,9                                    | 13,3 | 14,0 | 13,8 | 14,4 | 14,9 |
| 8H   | 4H   | 12,7 | 13,5 | 13,2 | 13,8 | 14,2                                    | 12,7 | 13,5 | 13,2 | 13,8 | 14,2 |
|  | 6H   | 13,4 | 14,0 | 13,9 | 14,5 | 15,0                                    | 13,4 | 14,0 | 13,9 | 14,5 | 15,0 |
|  | 8H   | 13,7 | 14,2 | 14,2 | 14,8 | 15,4                                    | 13,7 | 14,2 | 14,2 | 14,8 | 15,4 |
|  | 12H  | 13,9 | 14,3 | 14,5 | 14,9 | 15,5                                    | 13,9 | 14,3 | 14,5 | 14,9 | 15,5 |
| 12H  | 4H   | 12,7 | 13,3 | 13,2 | 13,8 | 14,3                                    | 12,7 | 13,3 | 13,2 | 13,8 | 14,3 |
|  | 6H   | 13,5 | 14,0 | 14,0 | 14,5 | 15,2                                    | 13,5 | 14,0 | 14,0 | 14,5 | 15,2 |
|  | 8H   | 13,8 | 14,2 | 14,4 | 14,8 | 15,4                                    | 13,8 | 14,2 | 14,4 | 14,8 | 15,4 |
| 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                                     |      |      |      |      | 0,1 / -0,2                              |      |      |      |      |      |
| S = 2.0H   | 0,4 / -0,5                                     |      |      |      |      | 0,4 / -0,5                              |      |      |      |      |      |
| CIE 117-1995. Corrected glare indices referring to 85,6 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   |
| <b>RCR</b>          | <b>(RCR: Room Cavity Ratio)</b>   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                     | 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                   | 108   | 103 | 99  | 95  | 106 | 101 | 97  | 93  | 97  | 93  | 90  | 93  | 90  | 88  | 89  | 87  | 85  | 83  |
| 2                   | 98  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 84  | 79  | 74  | 81  | 76  | 72  | 78  | 74  | 71  | 69  |
| 3                   | 90  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 68  | 62  | 71  | 66  | 61  | 69  | 64  | 60  | 58  |
| 4                   | 82  | 70  | 61  | 54  | 80  | 68  | 60  | 54  | 66  | 59  | 53  | 63  | 57  | 52  | 61  | 56  | 51  | 49  |
| 5                   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 46  | 57  | 50  | 45  | 55  | 49  | 44  | 42  |
| 6                   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 40  | 51  | 45  | 39  | 50  | 44  | 39  | 37  |
| 7                   | 64  | 51  | 42  | 36  | 63  | 50  | 41  | 35  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 33  |
| 8                   | 60  | 46  | 38  | 32  | 58  | 46  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |
| 9                   | 56  | 42  | 34  | 29  | 55  | 42  | 34  | 28  | 41  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |
| 10                  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 24  |

LAMPS (number of lamps)

**Luminaire budgetary diagram**



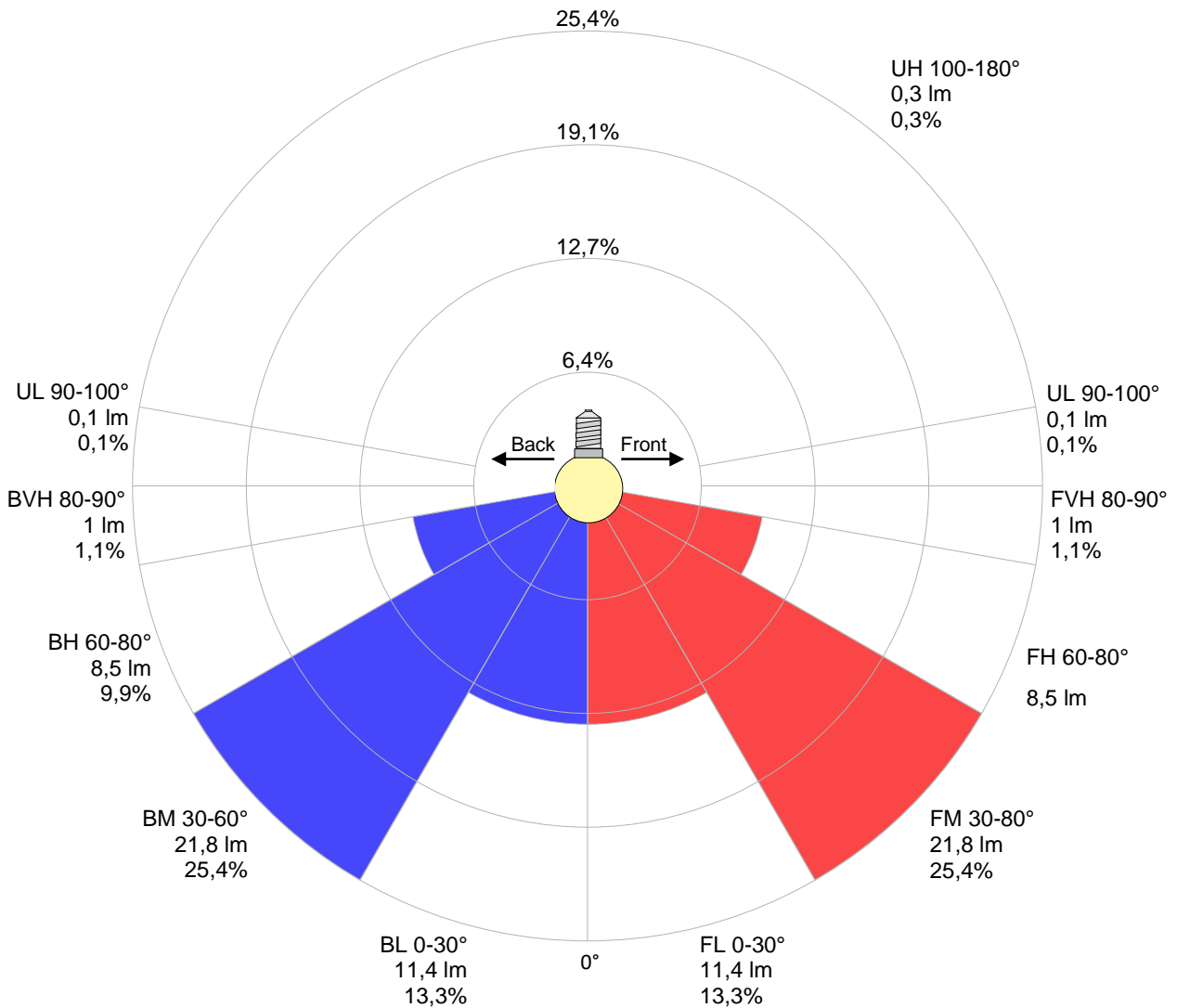
**Zonal Lumen Summary**

| 0°-10°    | 10°-20°   | 20°-30°   | 30°-40°   | 40°-50°   | 50°-60°   | 60°-70°   | 70°-80°   | 80°-90°   |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| {LUM0-10} | 7,95 lm   | 12,1 lm   | 14,6 lm   | 15,2 lm   | 13,8 lm   | 10,6 lm   | 6,32 lm   | 1,93 lm   |
| 90°-100°  | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 0,109 lm  | 0,045 lm  | 0,051 lm  | 0,044 lm  | 0,039 lm  | 0,039 lm  | 0,029 lm  | 0,017 lm  | 0,006 lm  |

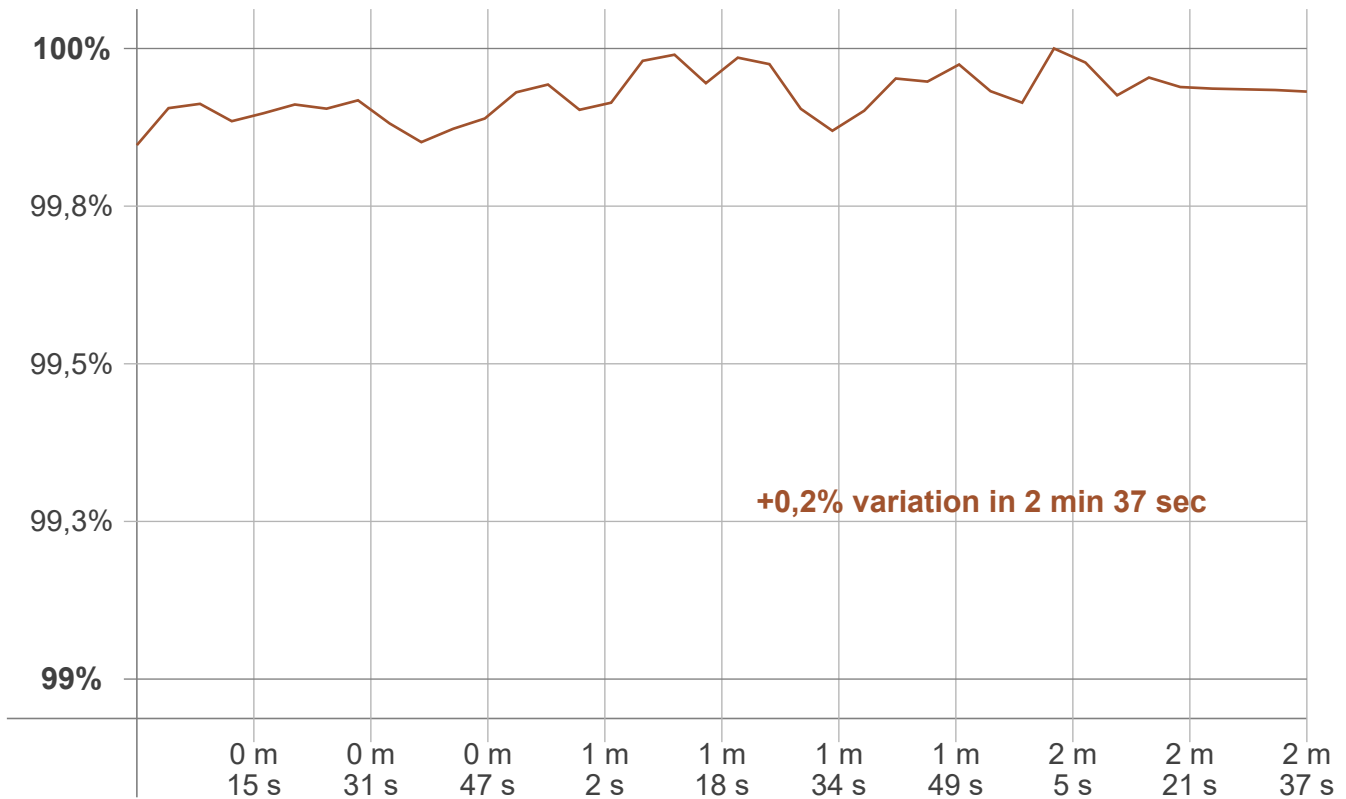
LCS table

| BUG rating:          | B0 U0 G0 |          |
|----------------------|----------|----------|
| <b>Forward light</b> | Lumens   | Lumens % |
| Low(0-30):           | 11,4     | 13,3%    |
| Medium(30-60):       | 21,8     | 25,4%    |
| High(60-80):         | 8,5      | 9,9%     |
| Very high(80-90):    | 1        | 1,1%     |
| <b>Back light</b>    |          |          |
| Low(0-30):           | 11,4     | 13,3%    |
| Medium(30-60):       | 21,8     | 25,4%    |
| High(60-80):         | 8,5      | 9,9%     |
| Very high(80-90):    | 1        | 1,1%     |
| <b>Uplight</b>       |          |          |
| Low(90-100):         | 0,1      | 0,1%     |
| High(100-180):       | 0,3      | 0,3%     |

LCS graph



**Warmup curve**



**Warmup result**

|                         |                      |
|-------------------------|----------------------|
| <b>Warmup time:</b>     | <b>Not completed</b> |
| <b>Warmup variation</b> | <b>+0,2%</b>         |

**Warmup conditions**

|                           |               |
|---------------------------|---------------|
| <b>Stable period:</b>     | <b>15 min</b> |
| <b>Stable change max:</b> | <b>2,0%</b>   |
| <b>Minimum time:</b>      | <b>15 min</b> |

**Color temperature change**

| <b>CCT start</b> | <b>CCT change</b> | <b>CCT end</b> |
|------------------|-------------------|----------------|
| <b>0 K</b>       | <b>0 K</b>        | <b>0 K</b>     |

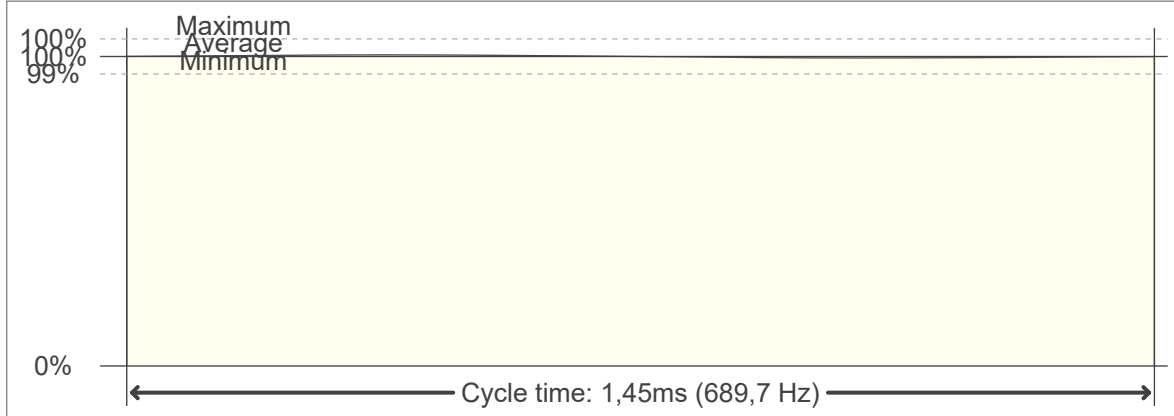
**Output change**

| <b>Output start</b> | <b>Output change</b> | <b>Output end</b> |
|---------------------|----------------------|-------------------|
| <b>85,5 lm</b>      | <b>+0,0 lm</b>       | <b>85,6 lm</b>    |

**Flicker curve (complete sampled flicker signal)**



**Flicker frame (frame of one flicker period)**



**Flicker FFT (frequency scope of flicker curve)**



**Flicker results:**

| Flicker frequency:    |        | 689,66 Hz     |        |
|-----------------------|--------|---------------|--------|
| Flicker index:        | 0      | JA8/10 40Hz   | 0,04 % |
| Flicker percentage:   | 0,59 % | JA8/10 90Hz   | 0,05 % |
| SVM: (Visual flicker) | 0      | JA8/10 200Hz  | 0,07 % |
| PstLM                 | 0,03   | JA8/10 400Hz  | 0,1 %  |
| Mp                    | 0,02   | JA8/10 1000Hz | 0,58 % |

**Flicker conditions:**

|              |                      |
|--------------|----------------------|
| Sample rate: | 20000 samples/second |
|--------------|----------------------|