

Light efficiency:



Light quality:



Color temperature:

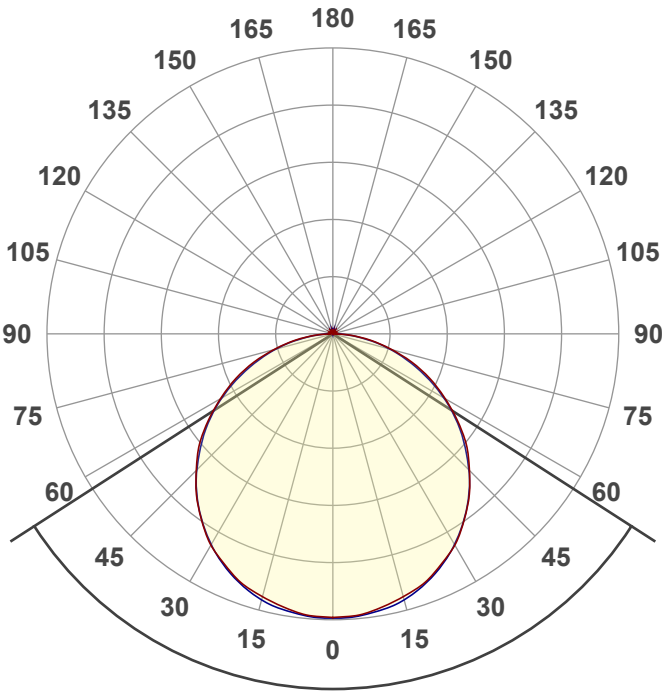
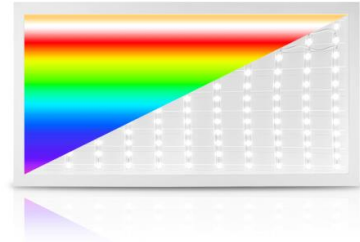


Output: 147 lm

Peak: 48,9 cd

Power: 10,3 W

PF: 0,85



Tracking number: [VT240920-008561](#)

Product name:

**274501-ROOD**

Item number:

**274501-ROOD**

Date and time:

**20-9-2024 11:17:14**

Description:

**BACK-LIT LED PANEEL | DOVER |  
RGB+CCT | 60X30CM | 24W**

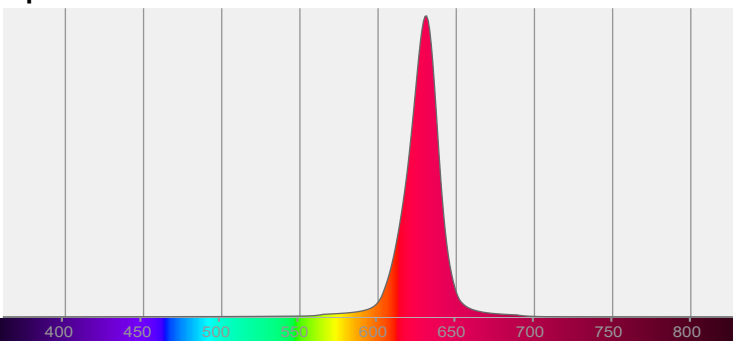
Beam angle

**114,4°**

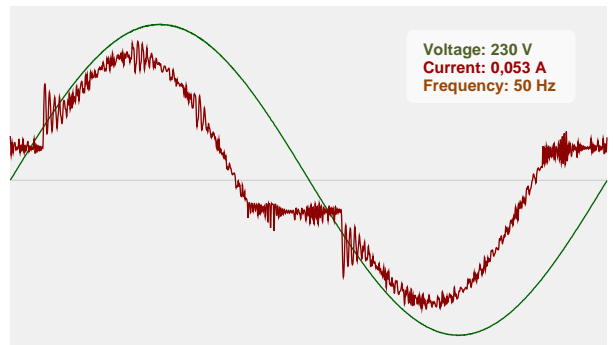


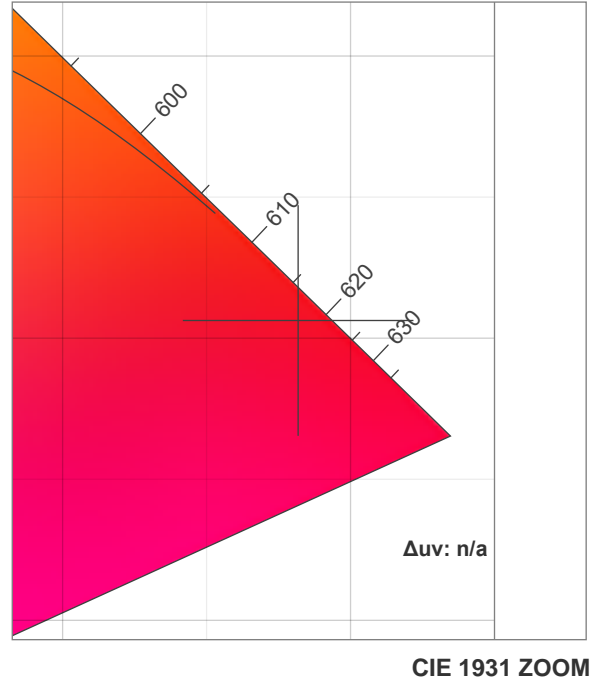
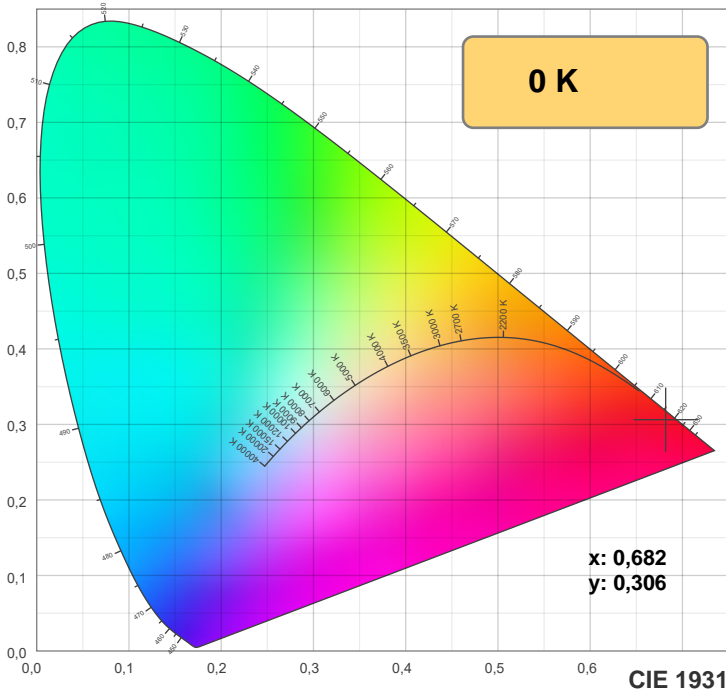
CIE 1931  
x: 0,682  
y: 0,306

Spectra



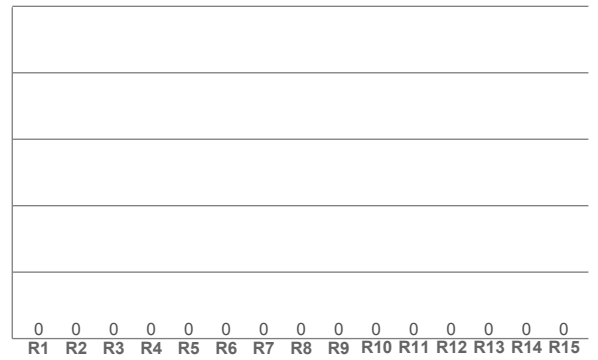
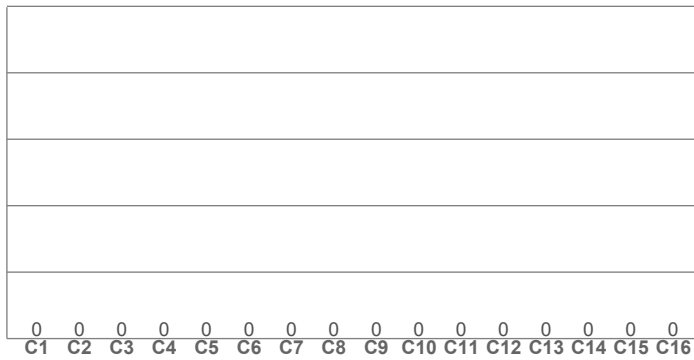
Power





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 |

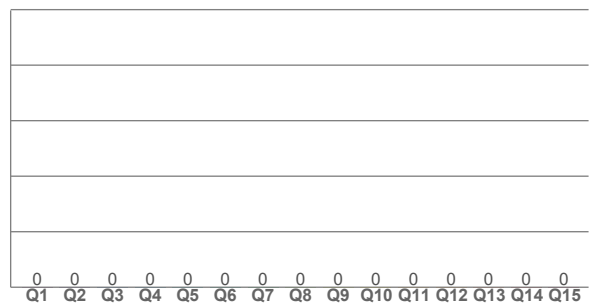
TM30 C values, 16 binned values out of total of 99 C values

| 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



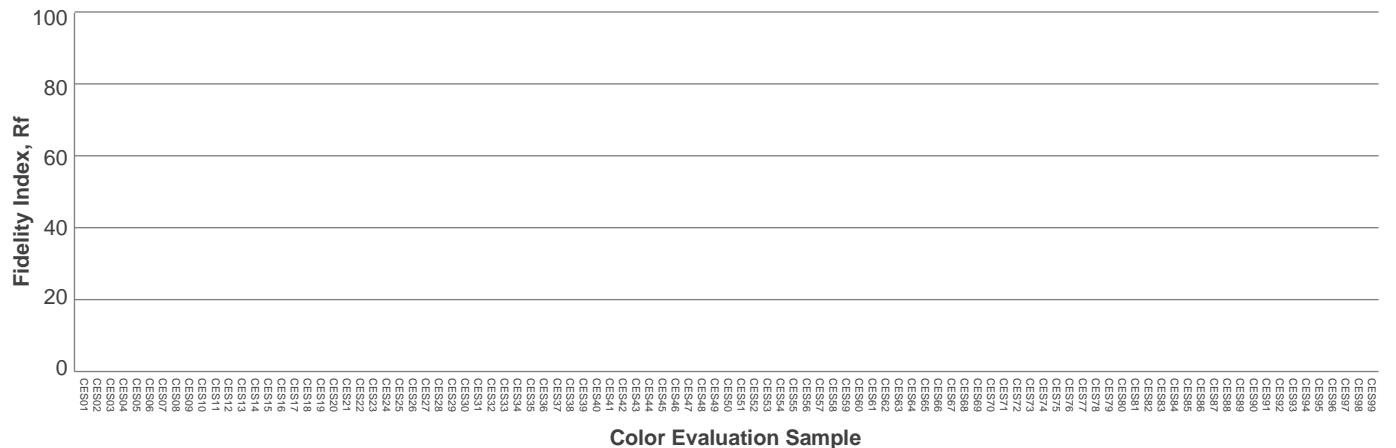
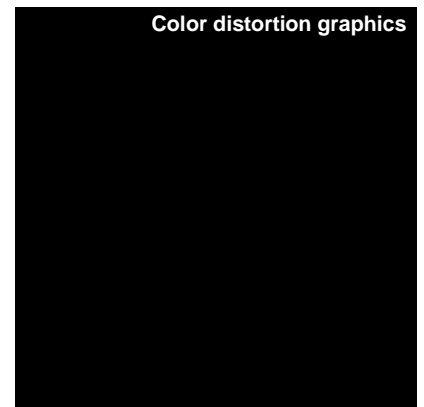
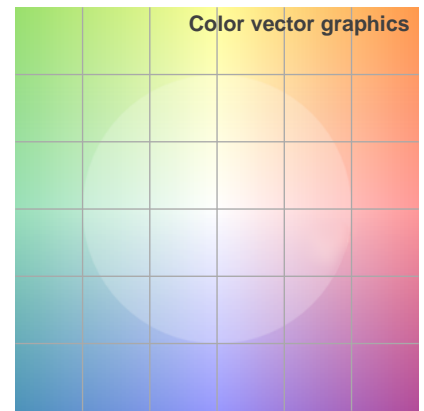
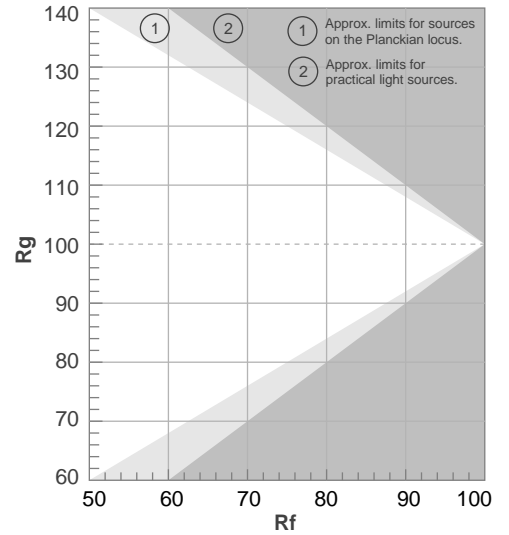
Color parameters

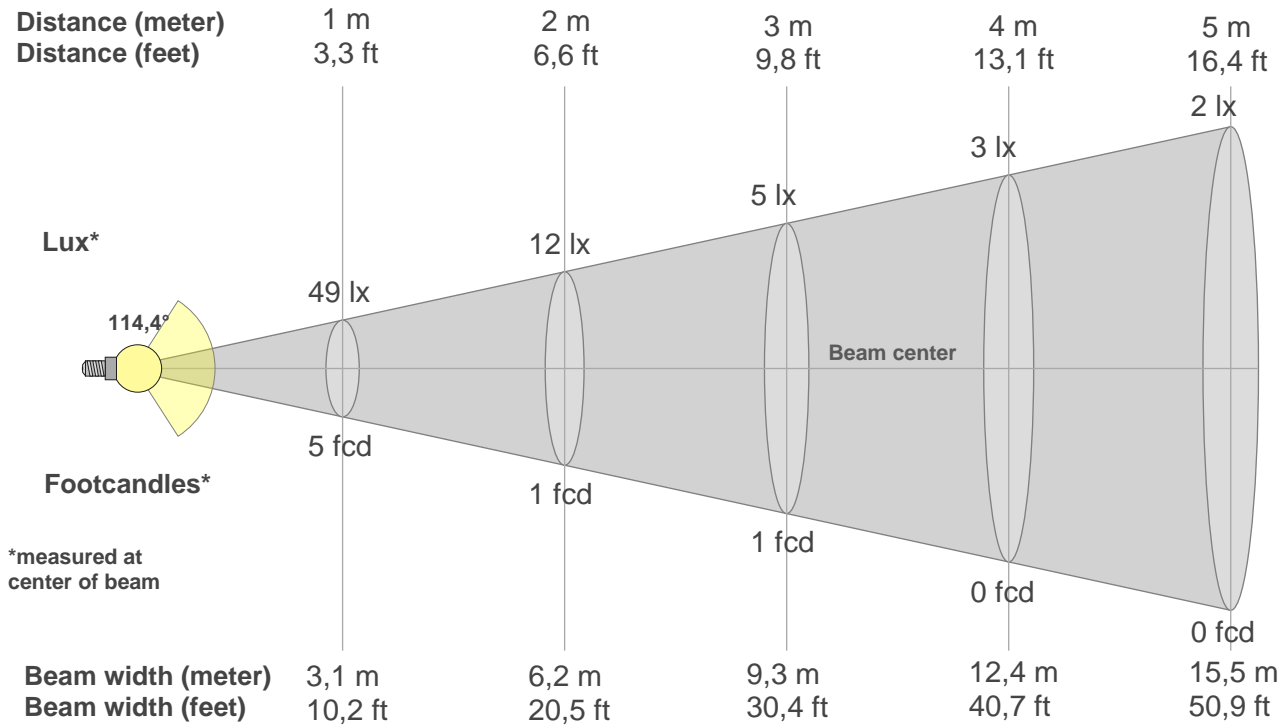
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color diviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT               | CRI                   | CRI R9        | TM30 Rf        | TM30 Rg     | CQS                 | x                         | y                         | u                | v                | $\Delta uv$                     |
| 0 K               | 0,0                   | 0,0           | 0,0            | 0,0         | 0,0                 | 0,682                     | 0,306                     | 0,513            | 0,346            | 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 |
| 49lx   | 12lx   | 5lx    | 3lx    | 2lx    | 1lx    | 1lx    | 1lx    | 1lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    |
| 4,5fcd | 1,1fcd | 0,5fcd | 0,3fcd | 0,2fcd | 0,1fcd | 0,1fcd | 0,1fcd | 0,1fcd | 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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| 48,8 | 48,4 | 47,6 | 46,6 | 45,5 | 43,7 | 41,8 | 39,2 | 36,3 | 33,1 | 29,9 | 26,1 | 22,3 | 18,5 | 14,6 | 10,5 | 6,8 | 3,4 | 0,7 | 0,4 |
| 100% | 99%  | 98%  | 96%  | 93%  | 90%  | 86%  | 80%  | 74%  | 68%  | 61%  | 54%  | 46%  | 38%  | 30%  | 22%  | 14% | 7%  | 1%  | 1%  |

**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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| 48,8 | 48,5 | 48,0 | 47,1 | 45,7 | 43,9 | 41,7 | 39,1 | 36,2 | 32,9 | 29,4 | 25,8 | 21,9 | 17,9 | 13,9 | 10,1 | 6,5 | 3,1 | 1,0 | 0,4 |
| 100% | 100% | 98%  | 97%  | 94%  | 90%  | 85%  | 80%  | 74%  | 68%  | 60%  | 53%  | 45%  | 37%  | 29%  | 21%  | 13% | 6%  | 2%  | 1%  |

**Intensities in 180° c-plane**

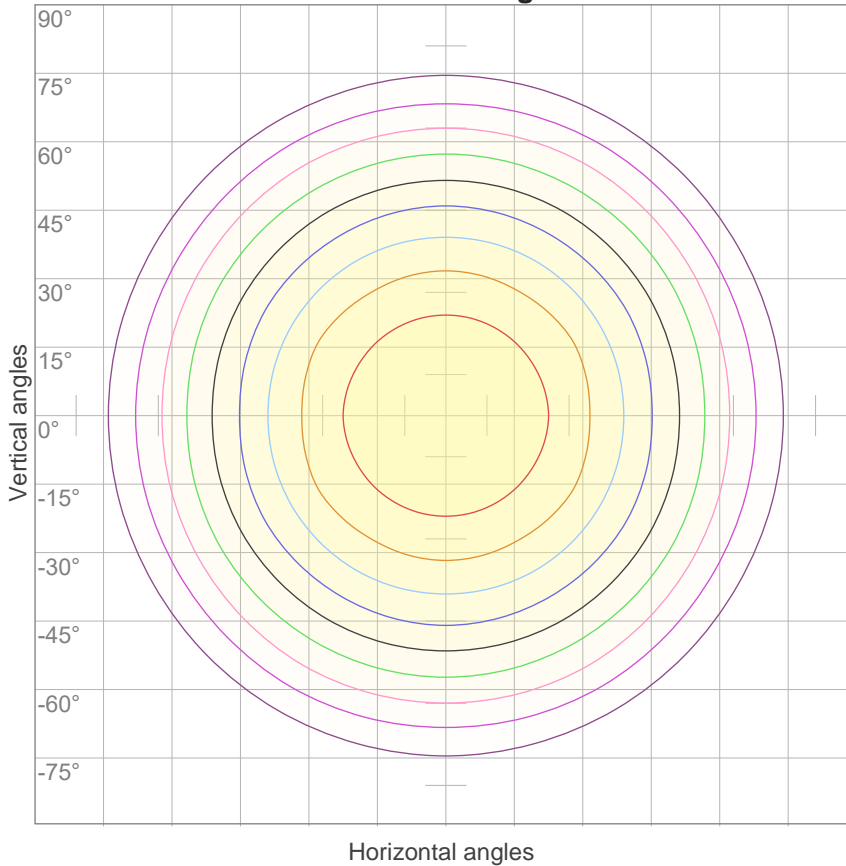
| 0°   | 5°   | 10°  | 15°  | 20°  | 25°  | 30°  | 35°  | 40°  | 45°  | 50°  | 55°  | 60°  | 65°  | 70°  | 75°  | 80° | 85° | 90° | 95° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| 48,8 | 48,4 | 47,6 | 46,6 | 45,5 | 43,7 | 41,8 | 39,2 | 36,3 | 33,1 | 29,9 | 26,1 | 22,3 | 18,5 | 14,6 | 10,5 | 6,8 | 3,4 | 0,7 | 0,4 |
| 100% | 99%  | 98%  | 96%  | 93%  | 90%  | 86%  | 80%  | 74%  | 68%  | 61%  | 54%  | 46%  | 38%  | 30%  | 22%  | 14% | 7%  | 1%  | 1%  |

**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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| 48,8 | 48,5 | 48,0 | 47,1 | 45,7 | 43,9 | 41,7 | 39,1 | 36,2 | 32,9 | 29,4 | 25,8 | 21,9 | 17,9 | 13,9 | 10,1 | 6,5 | 3,1 | 1,0 | 0,4 |
| 100% | 100% | 98%  | 97%  | 94%  | 90%  | 85%  | 80%  | 74%  | 68%  | 60%  | 53%  | 45%  | 37%  | 29%  | 21%  | 13% | 6%  | 2%  | 1%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| <b>114,4°</b>  | <b>164,8°</b>   | <b>178,1°</b>     | <b>75,9%</b>                 | <b>51,3%</b>                |

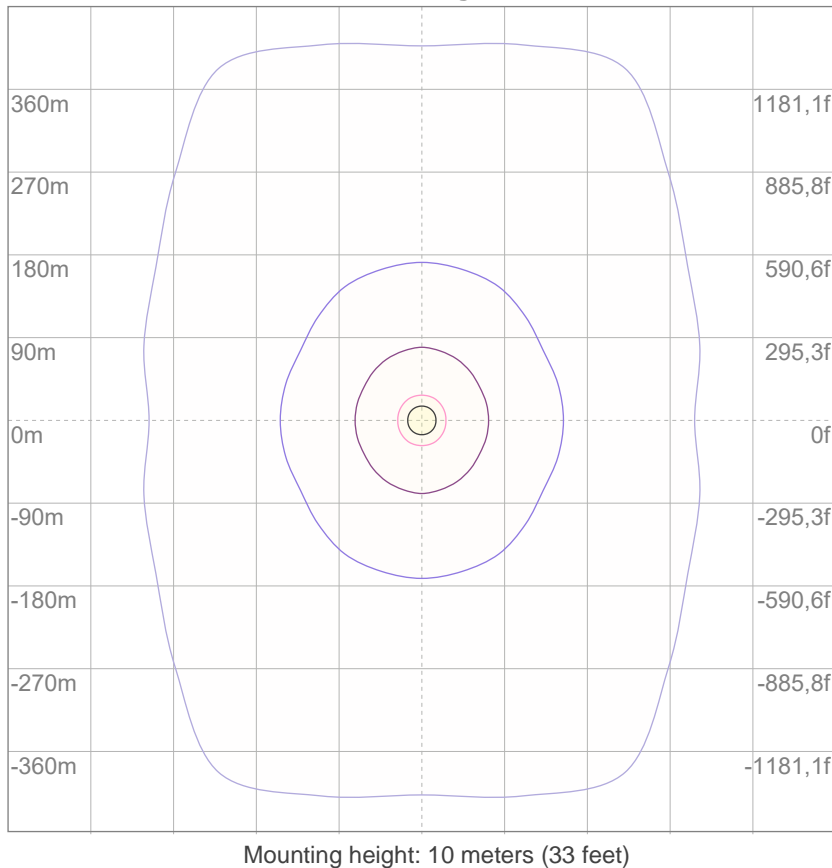
**iso-candela diagram**



— 10% 5 cd  
 — 20% 10 cd  
 — 30% 15 cd  
 — 40% 20 cd  
 — 50% 24 cd  
 — 60% 29 cd  
 — 70% 34 cd  
 — 80% 39 cd  
 — 90% 44 cd

Conditions:  
 Number of c-planes: 12  
 Candela at center: 49 cd

**iso-lux diagram**



— 3% 14,6m lx  
 — 5% 24,4m lx  
 — 10% 48,8m lx  
 — 30% 0,146 lx  
 — 50% 0,244 lx

Conditions:  
 Number of c-planes: 12  
 Lux at center: 0,488 lx

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

**Glare evaluation according to UGR**

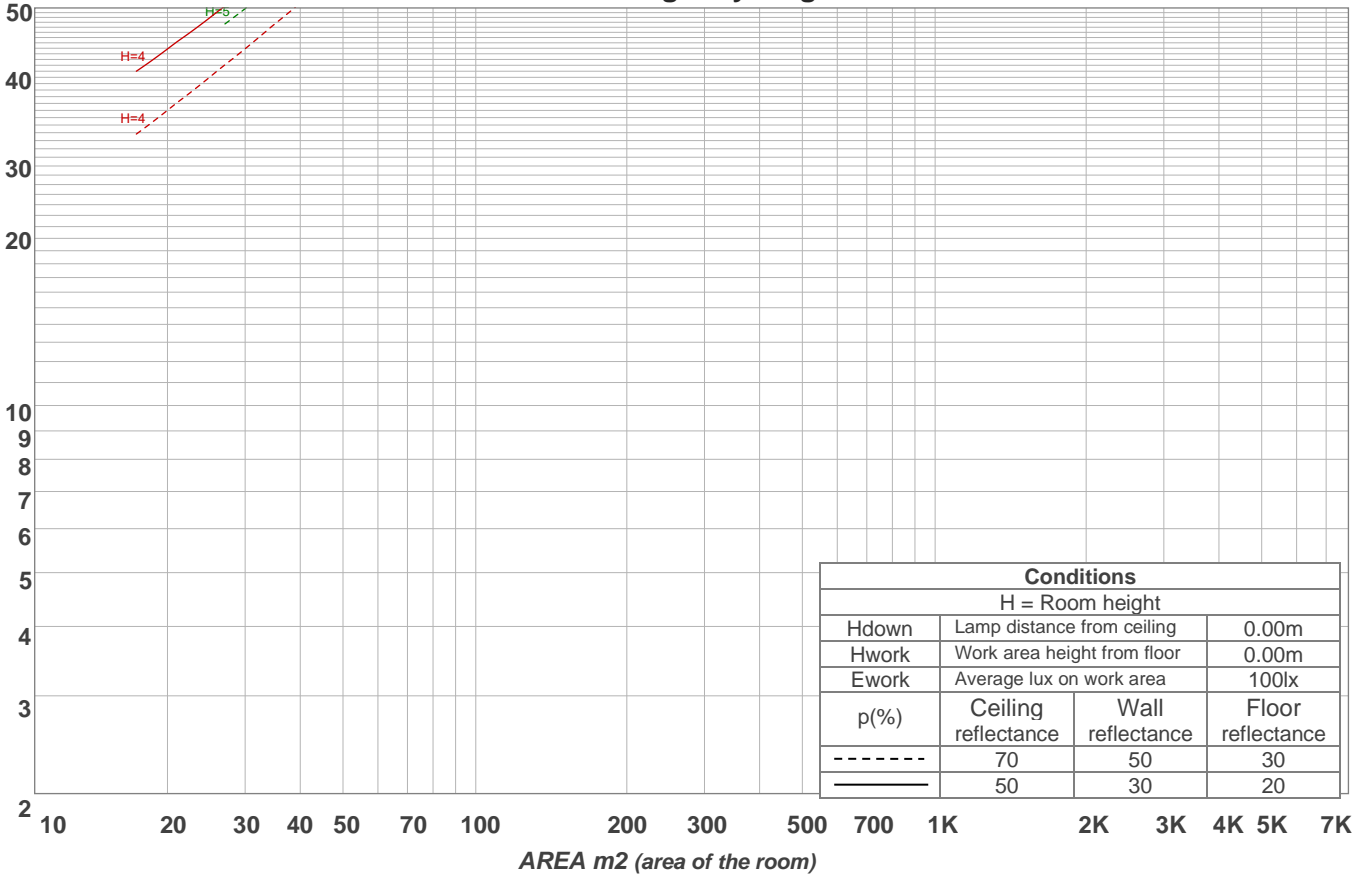
|   |  |      |      |      |      |   |      |      |      |      |      |
|---|--|------|------|------|------|---|------|------|------|------|------|
| p Ceiling   | 70   | 70   | 50   | 50   | 30   | 70                                      | 70   | 50   | 50   | 30   |      |
| p Walls   | 50   | 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 lamp axis |      |      |      |      | Viewing direction parallel to lamp axis |      |      |      |      |      |
| 2H  | 2H   | 8,6  | 9,8  | 8,8  | 10,1 | 10,4                                    | 8,4  | 9,7  | 8,7  | 10,0 | 10,3 |
|   | 3H   | 10,1 | 11,4 | 10,6 | 11,7 | 11,9                                    | 9,9  | 11,2 | 10,3 | 11,5 | 11,7 |
|   | 4H   | 10,8 | 12,0 | 11,2 | 12,3 | 12,6                                    | 10,5 | 11,7 | 11,0 | 12,1 | 12,4 |
|   | 6H   | 11,4 | 12,5 | 11,8 | 12,8 | 13,2                                    | 11,1 | 12,2 | 11,4 | 12,5 | 12,9 |
|   | 8H   | 11,6 | 12,6 | 12,0 | 13,0 | 13,4                                    | 11,3 | 12,3 | 11,6 | 12,6 | 13,1 |
|   | 12H  | 11,7 | 12,7 | 12,1 | 13,1 | 13,6                                    | 11,3 | 12,3 | 11,7 | 12,7 | 13,2 |
| 4H  | 2H   | 9,2  | 10,4 | 9,6  | 10,7 | 11,0                                    | 9,1  | 10,3 | 9,5  | 10,6 | 10,9 |
|   | 3H   | 11,0 | 12,0 | 11,4 | 12,4 | 12,9                                    | 10,8 | 11,9 | 11,2 | 12,2 | 12,7 |
|   | 4H   | 11,8 | 12,7 | 12,2 | 13,1 | 13,7                                    | 11,5 | 12,5 | 12,0 | 12,9 | 13,5 |
|   | 6H   | 12,4 | 13,3 | 13,0 | 13,7 | 14,1                                    | 12,1 | 13,0 | 12,6 | 13,4 | 13,8 |
|   | 8H   | 12,7 | 13,5 | 13,2 | 13,9 | 14,3                                    | 12,3 | 13,1 | 12,9 | 13,5 | 14,0 |
|   | 12H  | 12,9 | 13,5 | 13,4 | 14,0 | 14,5                                    | 12,5 | 13,2 | 13,0 | 13,6 | 14,1 |
| 8H  | 4H   | 12,1 | 12,9 | 12,6 | 13,3 | 13,7                                    | 11,8 | 12,6 | 12,4 | 13,1 | 13,5 |
|   | 6H   | 12,9 | 13,5 | 13,4 | 14,0 | 14,6                                    | 12,6 | 13,2 | 13,1 | 13,7 | 14,3 |
|   | 8H   | 13,2 | 13,8 | 13,8 | 14,3 | 15,0                                    | 12,9 | 13,5 | 13,5 | 14,0 | 14,7 |
|   | 12H  | 13,5 | 14,0 | 14,1 | 14,5 | 15,1                                    | 13,1 | 13,6 | 13,7 | 14,1 | 14,8 |
| 12H   | 4H   | 12,1 | 12,7 | 12,6 | 13,2 | 13,7                                    | 11,9 | 12,5 | 12,4 | 13,0 | 13,5 |
|   | 6H   | 13,0 | 13,5 | 13,5 | 14,1 | 14,7                                    | 12,7 | 13,2 | 13,2 | 13,8 | 14,4 |
|   | 8H   | 13,3 | 13,8 | 13,9 | 14,3 | 15,0                                    | 13,0 | 13,5 | 13,6 | 14,0 | 14,6 |
| 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                                     |      |      |      |      | 0,1 / -0,2                              |      |      |      |      |      |
| S = 2.0H  | 0,3 / -0,4                                     |      |      |      |      | 0,4 / -0,5                              |      |      |      |      |      |
| CIE 117-1995. Corrected glare indices referring to 147 lm total luminous flux |  |      |      |      |      |   |      |      |      |      |      |

**Coefficients of Utilization**

| Ceiling reflectance | 80  |     |     |     | 70  |     |     |     | 50  |     |     | 30  |     |     | 10  |     |     | 0  |
|---------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                     | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 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 | 110 | 110 | 110 | 105 | 105 | 105 | 100 | 100 | 100 | 98 |
| 1                   | 108   | 103 | 98  | 94  | 105 | 100 | 96  | 93  | 96  | 93  | 89  | 92  | 89  | 86  | 88  | 86  | 84  | 81 |
| 2                   | 98  | 89  | 82  | 76  | 95  | 87  | 81  | 75  | 83  | 78  | 73  | 80  | 75  | 71  | 77  | 73  | 70  | 67 |
| 3                   | 89  | 78  | 70  | 63  | 86  | 77  | 69  | 63  | 73  | 67  | 61  | 70  | 65  | 60  | 67  | 63  | 59  | 56 |
| 4                   | 81  | 69  | 60  | 53  | 79  | 68  | 59  | 53  | 65  | 58  | 52  | 62  | 56  | 51  | 60  | 55  | 50  | 48 |
| 5                   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 58  | 51  | 45  | 56  | 49  | 44  | 54  | 48  | 44  | 41 |
| 6                   | 69  | 56  | 46  | 40  | 67  | 54  | 46  | 40  | 52  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 38  | 36 |
| 7                   | 64  | 50  | 41  | 35  | 62  | 49  | 41  | 35  | 48  | 40  | 35  | 46  | 39  | 34  | 45  | 38  | 34  | 32 |
| 8                   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 30  | 28 |
| 9                   | 56  | 42  | 34  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 28  | 38  | 32  | 27  | 25 |
| 10                  | 52  | 39  | 31  | 25  | 51  | 38  | 31  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23 |

LAMPS (number of lamps)

**Luminaire budgetary diagram**



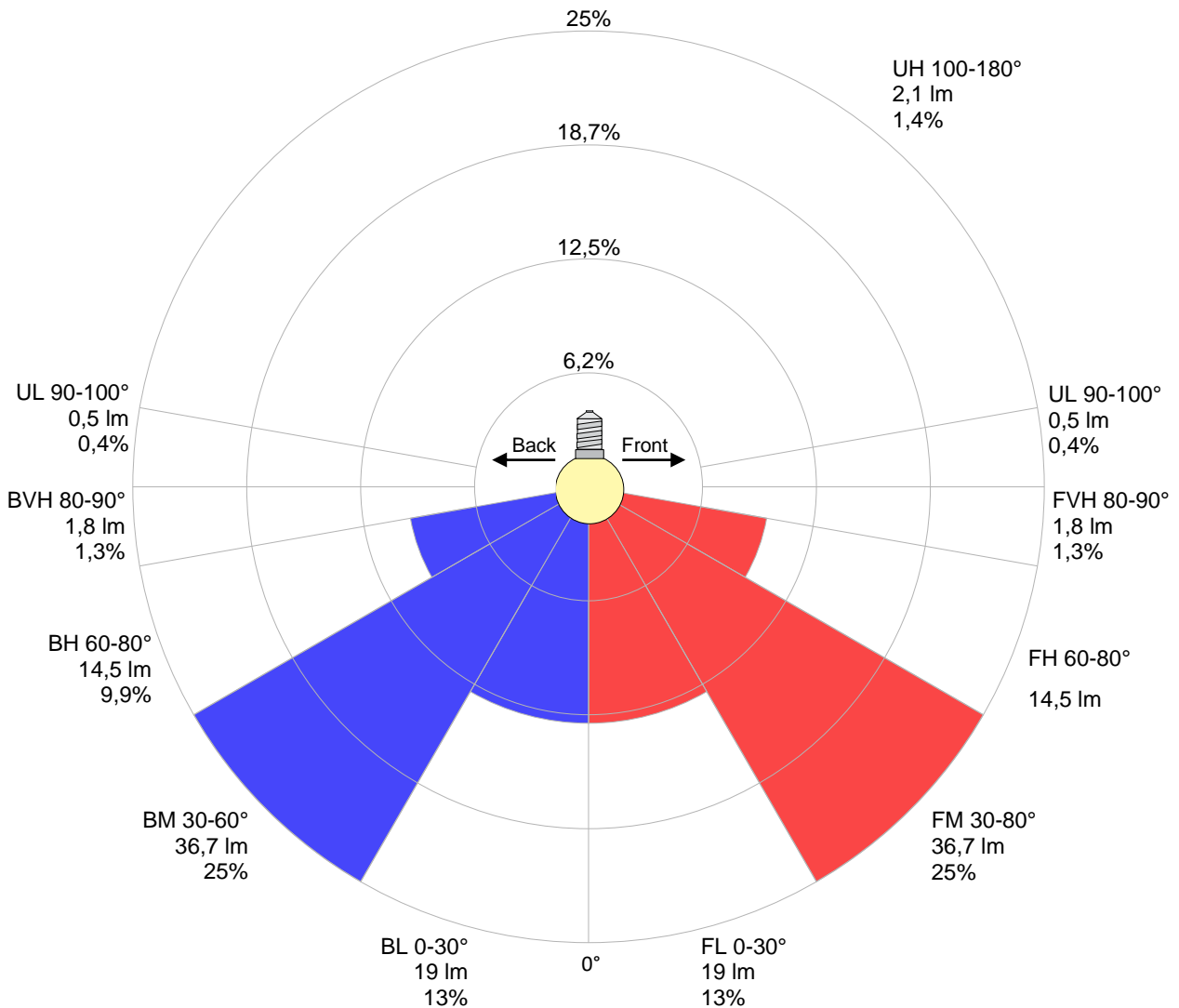
**Zonal Lumen Summary**

|           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0°-10°    | 10°-20°   | 20°-30°   | 30°-40°   | 40°-50°   | 50°-60°   | 60°-70°   | 70°-80°   | 80°-90°   |
| {LUM0-10} | 13,3 lm   | 20,2 lm   | 24,5 lm   | 25,6 lm   | 23,3 lm   | 18,1 lm   | 11,0 lm   | 3,67 lm   |
| 90°-100°  | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 0,525 lm  | 0,414 lm  | 0,387 lm  | 0,376 lm  | 0,299 lm  | 0,262 lm  | 0,208 lm  | 0,125 lm  | 0,045 lm  |

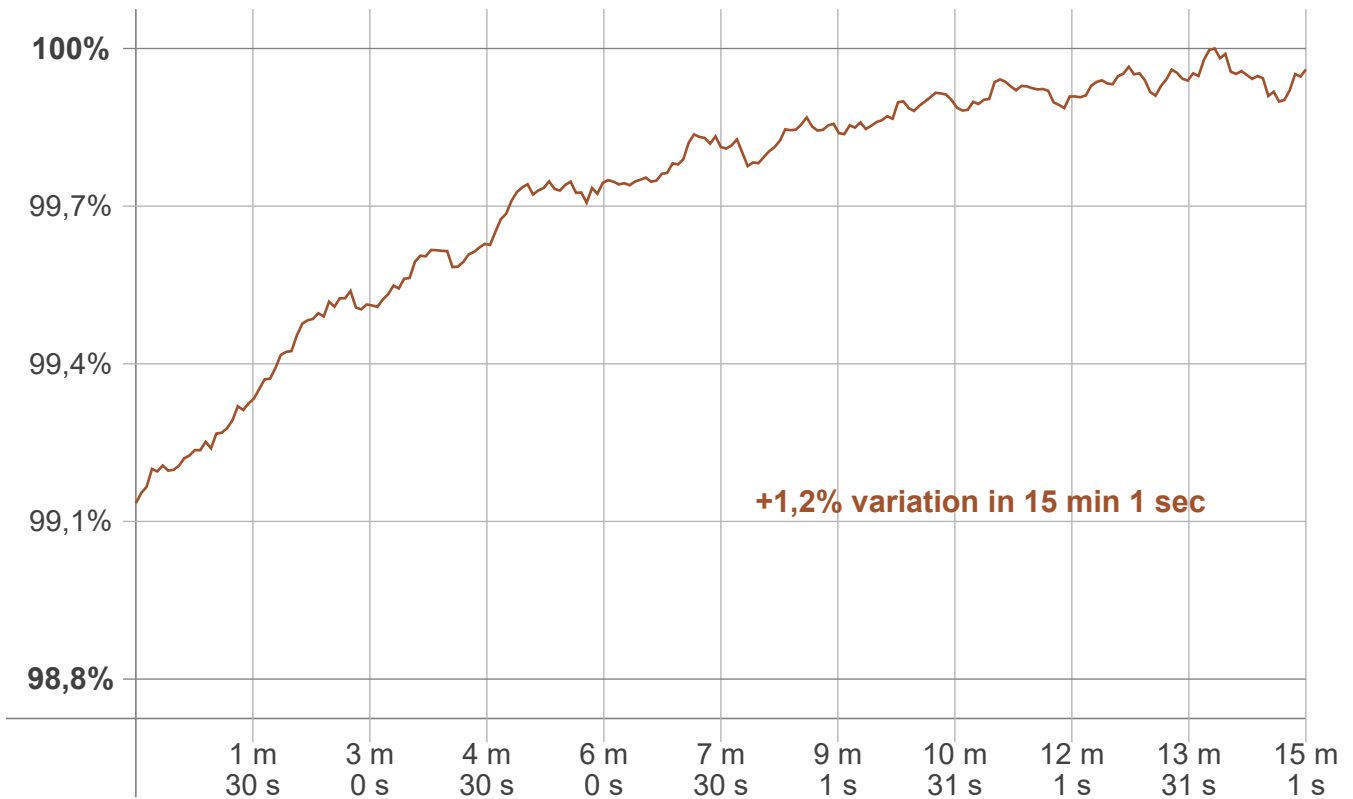
LCS table

| BUG rating:          | B0 U1 G0 |          |
|----------------------|----------|----------|
| <b>Forward light</b> | Lumens   | Lumens % |
| Low(0-30):           | 19       | 13%      |
| Medium(30-60):       | 36,7     | 25%      |
| High(60-80):         | 14,5     | 9,9%     |
| Very high(80-90):    | 1,8      | 1,3%     |
| <b>Back light</b>    |          |          |
| Low(0-30):           | 19       | 13%      |
| Medium(30-60):       | 36,7     | 25%      |
| High(60-80):         | 14,5     | 9,9%     |
| Very high(80-90):    | 1,8      | 1,3%     |
| <b>Uplight</b>       |          |          |
| Low(90-100):         | 0,5      | 0,4%     |
| High(100-180):       | 2,1      | 1,4%     |

LCS graph



**Warmup curve**



**Warmup result**

|                         |  |
|-------------------------|--|
| <b>Warmup time:</b>     | <b>Lamp stabilized in 15 min 1 sec</b> |
| <b>Warmup variation</b> | <b>+1,2%</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>     |

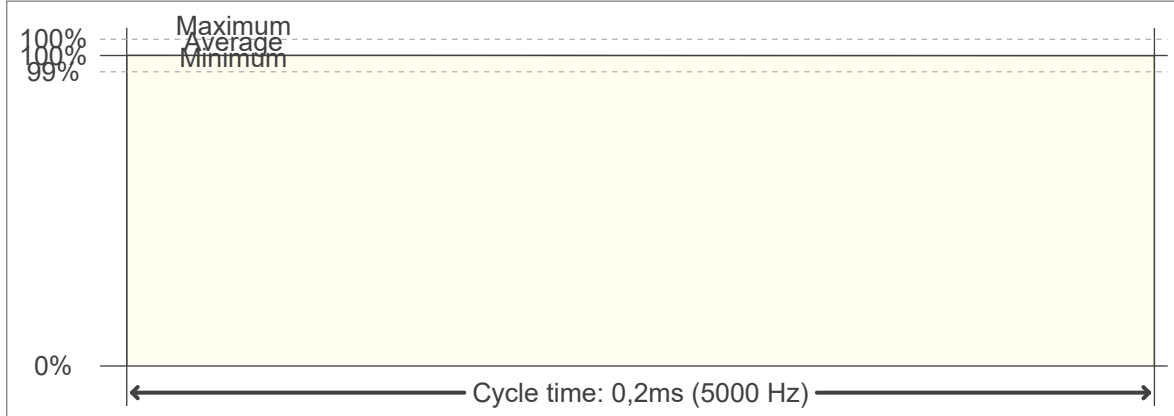
**Output change**

| <b>Output start</b> | <b>Output change</b> | <b>Output end</b> |
|---------------------|----------------------|-------------------|
| <b>146 lm</b>       | <b>+1 lm</b>         | <b>147 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:    |        | 5000 Hz       |        |
|-----------------------|--------|---------------|--------|
| Flicker index:        | 0      | JA8/10 40Hz   | 0,04 % |
| Flicker percentage:   | 0,27 % | JA8/10 90Hz   | 0,04 % |
| SVM: (Visual flicker) | 0      | JA8/10 200Hz  | 0,07 % |
| PstLM                 | 0,03   | JA8/10 400Hz  | 0,08 % |
| Mp                    | 0,01   | JA8/10 1000Hz | 0,1 %  |

**Flicker conditions:**

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