

## Light efficiency:

n/a Lumen/Watt

## Light quality:

CRI: 94.3

## Color temperature:

4223 K

Output: 335 lm/ft

Peak: 110 cd

Power: 0.00 W

PF: n/a

No photo

## Product name:

VariTune RazorLine 6.1 TW 2700K-6500K

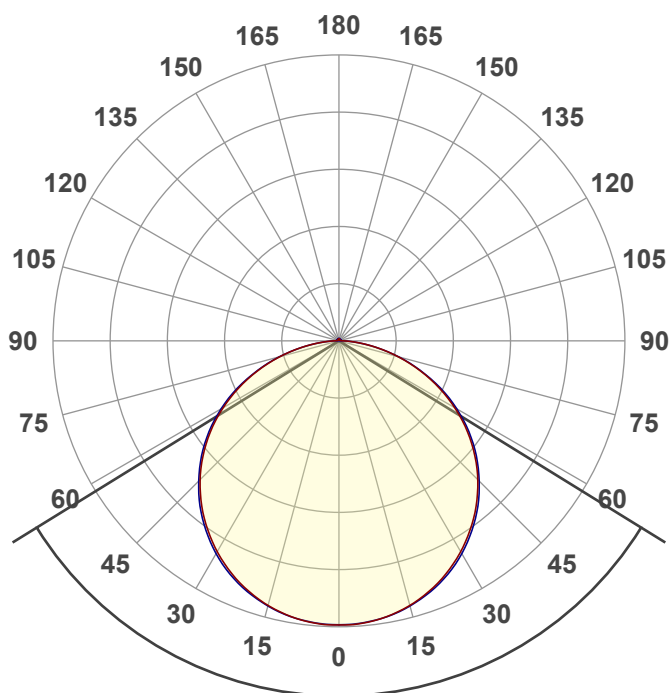
## Item number:

AL-01-38-2401

## Date and time:

7/15/2025 3:27:34 PM

## Description:



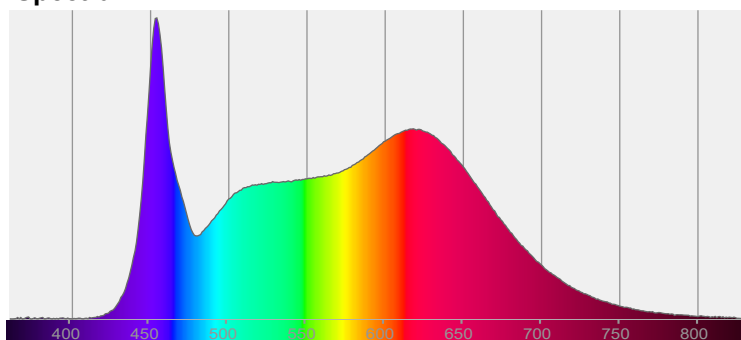
Beam angle

116.6°

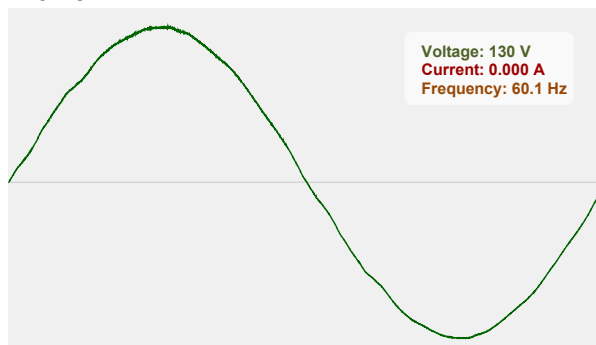


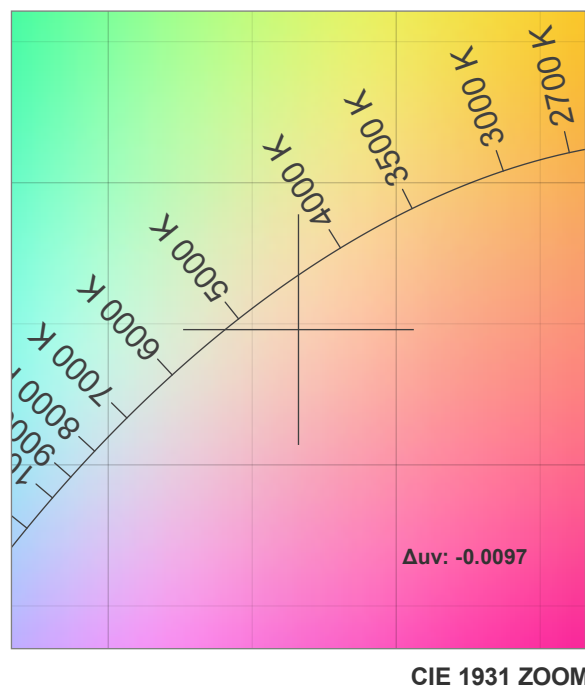
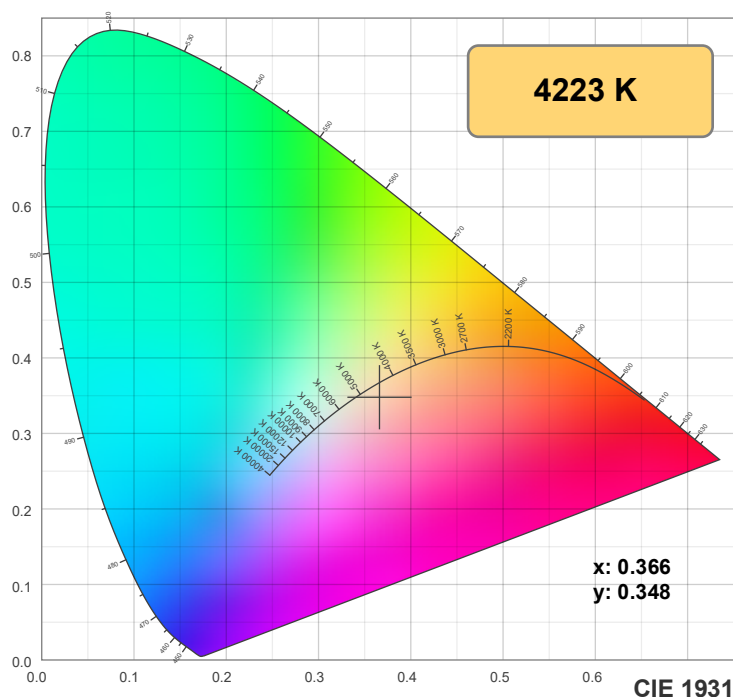
CIE 1931  
x: 0.366  
y: 0.348

## Spectra

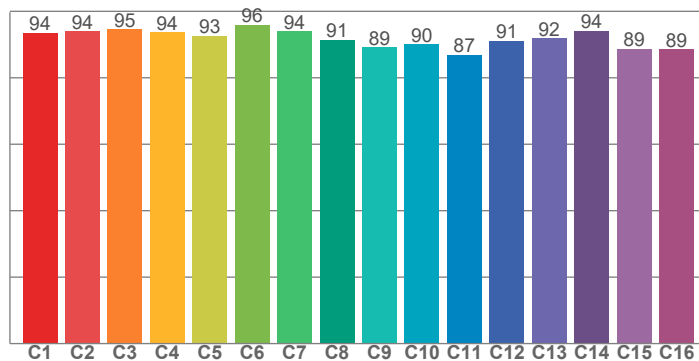


## Power

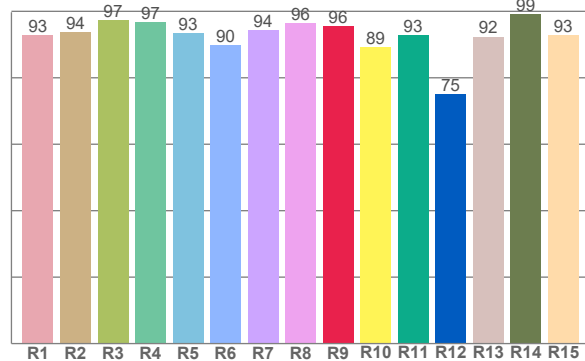




**TM-30: 91.8**



**CRI: 94.3 (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  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92.8 | 93.7 | 97.2 | 96.8 | 93.3 | 89.8 | 94.3 | 96.3 | 95.5 | 89.2 | 92.8 | 75.0 | 92.3 | 99.1 | 92.8 |

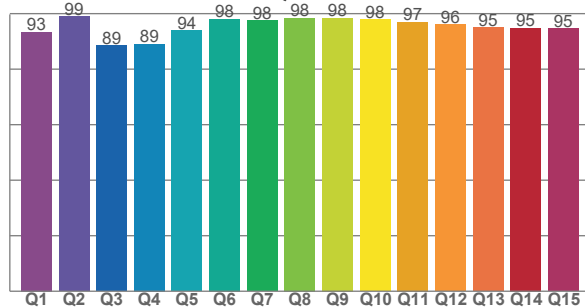
TM30 C values, 16 binned values out of total of 99 C values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93.5 | 94.0 | 94.5 | 93.7 | 92.6 | 95.9 | 94.0 | 91.4 | 89.2 | 90.1 | 86.9 | 91.2 | 91.8 | 94.1 | 88.7 | 88.5 |

CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93.3 | 99.0 | 88.5 | 89.0 | 93.9 | 98.1 | 97.5 | 98.4 | 98.5 | 97.8 | 97.0 | 96.0 | 95.0 | 94.7 | 94.7 |

**CQS: 94.5**



### 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                | $\Delta uv$                     |
| 4223 K            | 94.3                  | 95.5          | 91.8           | 101.7       | 94.5                | 0.366                     | 0.348                     | 0.227            | 0.324            | -0.0097                         |

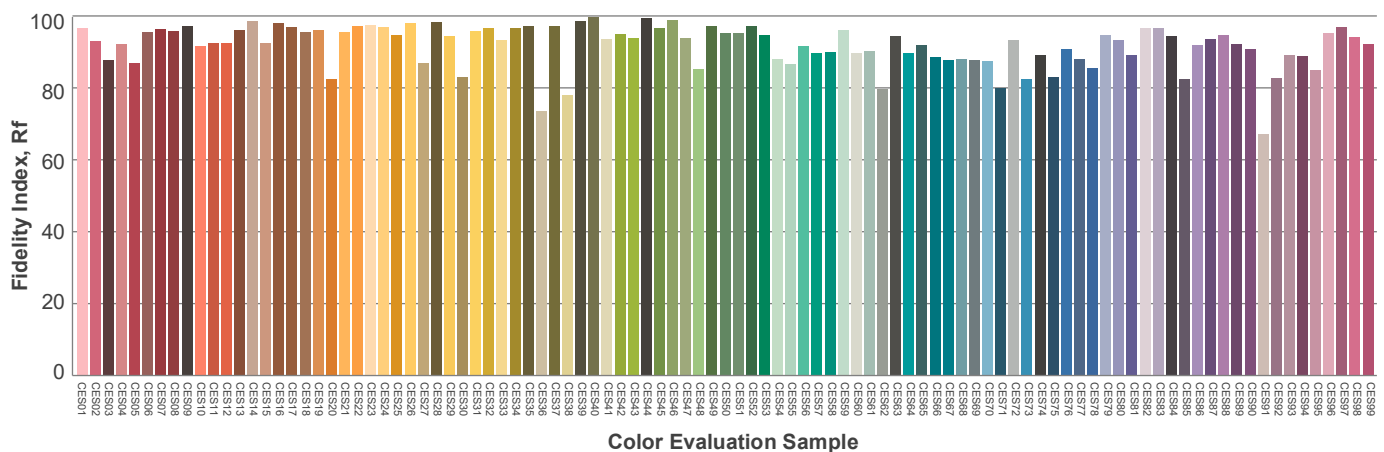
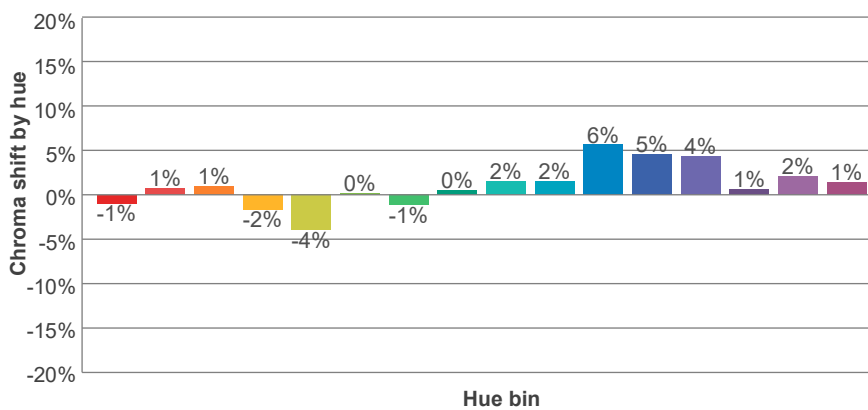
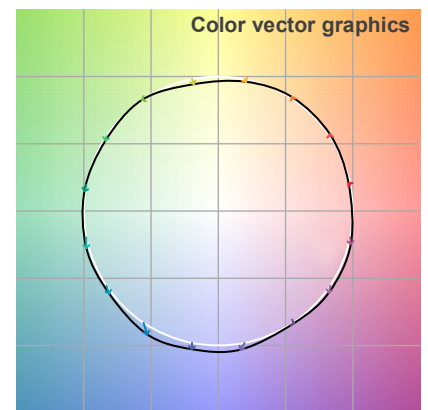
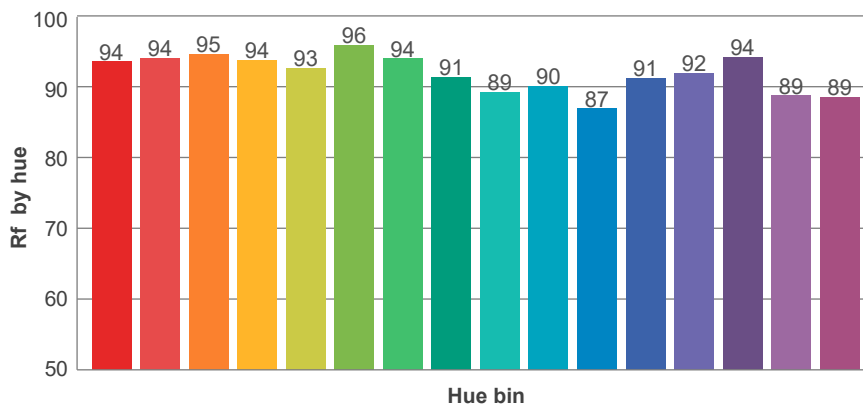
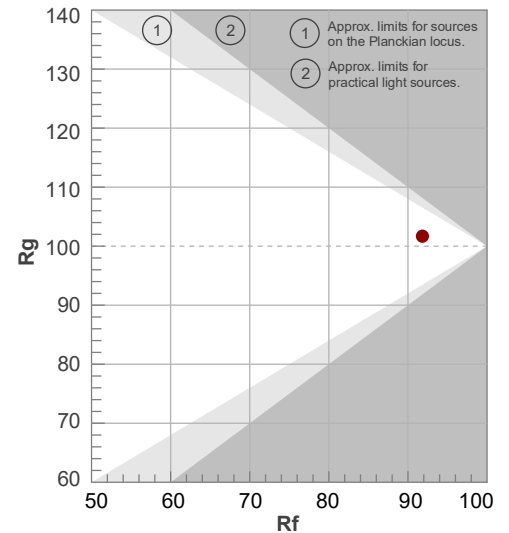
**Rf 91.8**

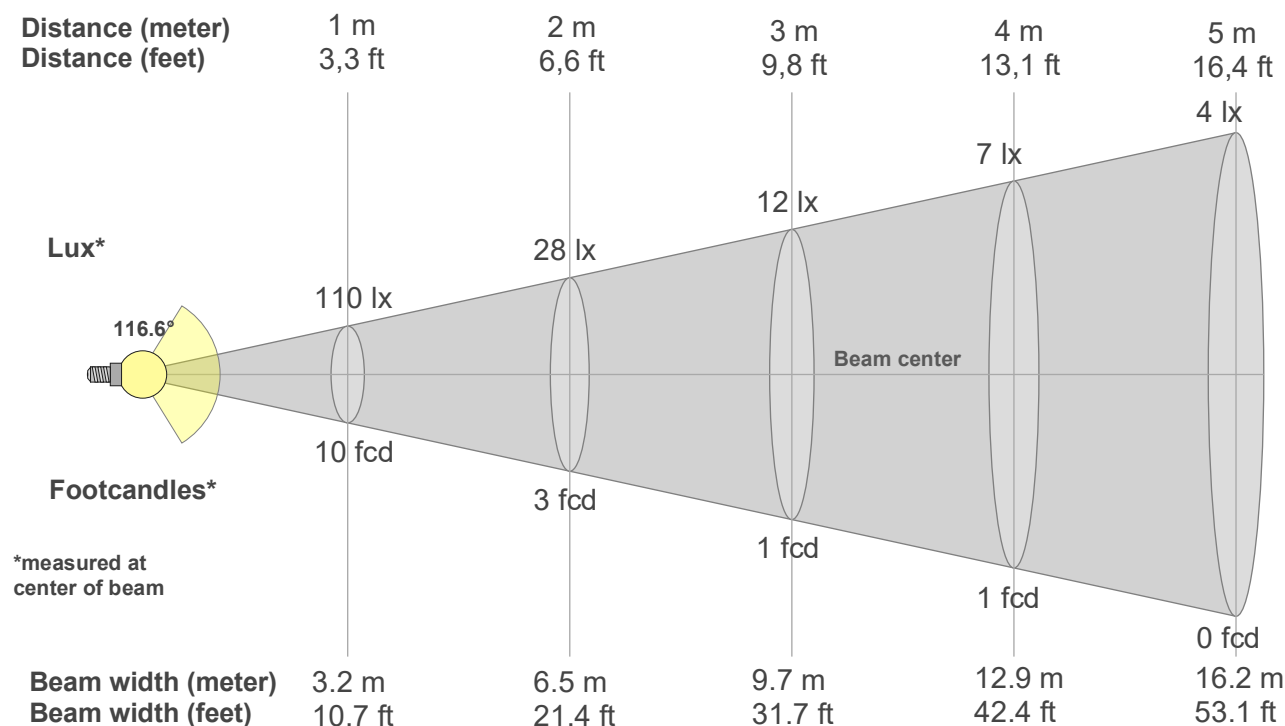
Fidelity index Rf

**Rg 101.7**

Gamut index Rg

| Hue Bin | R <sub>r</sub> | Shifts (%) |     |
|---------|----------------|------------|-----|
|         |                | Chroma     | Hue |
| 1       | 94             | -1%        | 1%  |
| 2       | 94             | 1%         | 1%  |
| 3       | 95             | 1%         | 1%  |
| 4       | 94             | -2%        | -1% |
| 5       | 93             | -4%        | -1% |
| 6       | 96             | 0%         | 1%  |
| 7       | 94             | -1%        | 3%  |
| 8       | 91             | 0%         | 5%  |
| 9       | 89             | 2%         | 8%  |
| 10      | 90             | 2%         | 6%  |
| 11      | 87             | 6%         | 7%  |
| 12      | 91             | 5%         | 1%  |
| 13      | 92             | 4%         | -4% |
| 14      | 94             | 1%         | 0%  |
| 15      | 89             | 2%         | -5% |
| 16      | 89             | 1%         | -5% |





### 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 |
| 110lx   | 28lx   | 12lx   | 7lx    | 4lx    | 3lx    | 2lx    | 2lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    |
| 10.2fcd | 2.6fcd | 1.1fcd | 0.6fcd | 0.4fcd | 0.3fcd | 0.2fcd | 0.2fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 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° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 110  | 110  | 109 | 106 | 103 | 99  | 95  | 89  | 83  | 76  | 69  | 61  | 52  | 43  | 33  | 24  | 15  | 7   | 2   | 1   |
| 100% | 100% | 99% | 96% | 94% | 90% | 86% | 81% | 75% | 69% | 62% | 55% | 47% | 39% | 30% | 22% | 13% | 6%  | 2%  | 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° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 110  | 110  | 109 | 107 | 104 | 100 | 95  | 90  | 84  | 77  | 70  | 62  | 53  | 44  | 34  | 24  | 15  | 7   | 1   | 0   |
| 100% | 100% | 99% | 97% | 94% | 91% | 87% | 82% | 76% | 70% | 63% | 56% | 48% | 39% | 31% | 22% | 13% | 6%  | 1%  | 0%  |

### Intensities in 180° c-plane

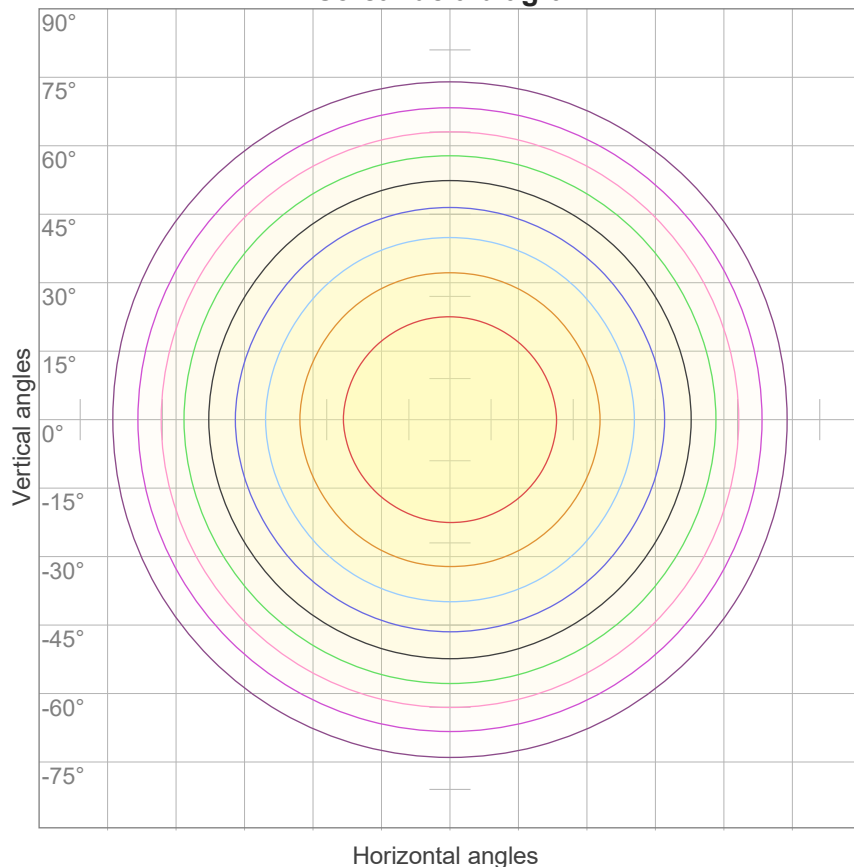
| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 110  | 110  | 109 | 106 | 103 | 99  | 95  | 89  | 83  | 76  | 69  | 61  | 52  | 43  | 33  | 24  | 15  | 7   | 2   | 1   |
| 100% | 100% | 99% | 96% | 94% | 90% | 86% | 81% | 75% | 69% | 62% | 55% | 47% | 39% | 30% | 22% | 13% | 6%  | 2%  | 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° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 110  | 110  | 109 | 107 | 104 | 100 | 95  | 90  | 84  | 77  | 70  | 62  | 53  | 44  | 34  | 24  | 15  | 7   | 1   | 0   |
| 100% | 100% | 99% | 97% | 94% | 91% | 87% | 82% | 76% | 70% | 63% | 56% | 48% | 39% | 31% | 22% | 13% | 6%  | 1%  | 0%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 116.6°         | 164.5°          | 177.6°            | 76.3%                        | 51.3%                       |

**iso-candela diagram**



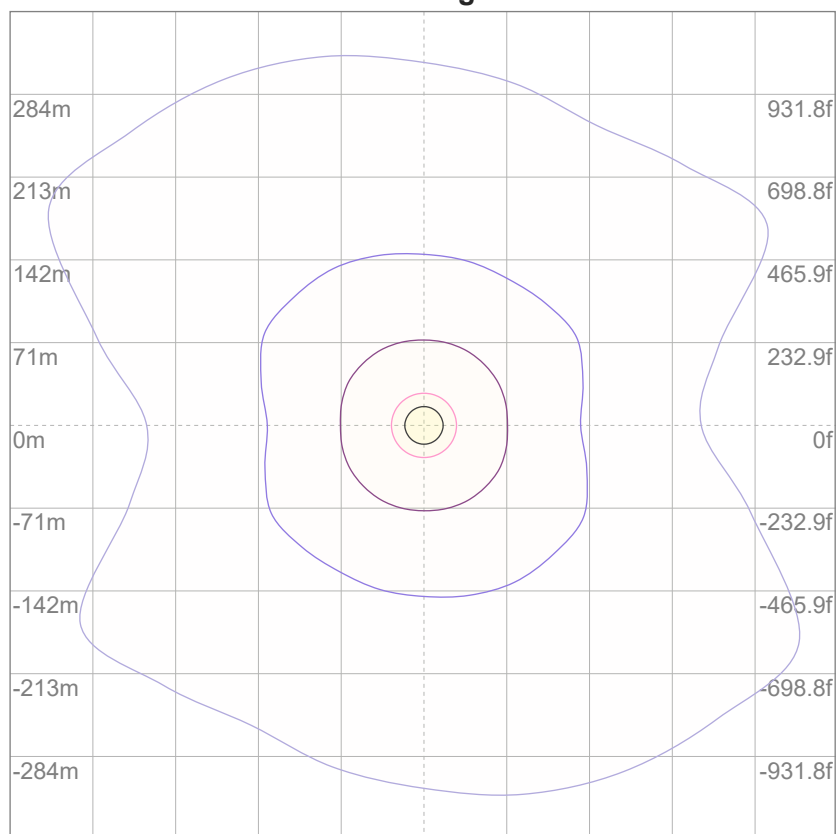
|     |       |
|-----|-------|
| 10% | 11 cd |
| 20% | 22 cd |
| 30% | 33 cd |
| 40% | 44 cd |
| 50% | 55 cd |
| 60% | 66 cd |
| 70% | 77 cd |
| 80% | 88 cd |
| 90% | 99 cd |

Conditions:

Number of c-planes: 12

Candela at center: 110 cd

**iso-lux diagram**



|     |          |
|-----|----------|
| 3%  | 33.1m lx |
| 5%  | 55.1m lx |
| 10% | 0.110 lx |
| 30% | 0.331 lx |
| 50% | 0.551 lx |

Conditions:

Number of c-planes: 12

Lux at center: 1.10 lx

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

|   |   |     |     |     |     |   |     |     |     |     |
|---|---|-----|-----|-----|-----|---|-----|-----|-----|-----|
| 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 |     |     |     |     |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| n/a   | n/a   | n/a | n/a | n/a | n/a | n/a                                     | n/a | n/a | n/a | n/a |
| Variation of the observer position for the luminaire distance S               |   |     |     |     |     |   |     |     |     |     |
| n/a   | n/a   |     |     |     |     | n/a                                     |     |     |     |     |
| n/a   | n/a   |     |     |     |     | n/a                                     |     |     |     |     |
| n/a   | n/a   |     |     |     |     | n/a                                     |     |     |     |     |
| CIE 117-1995. Corrected glare indices referring to 335 lm total luminous flux |   |     |     |     |     |   |     |     |     |     |

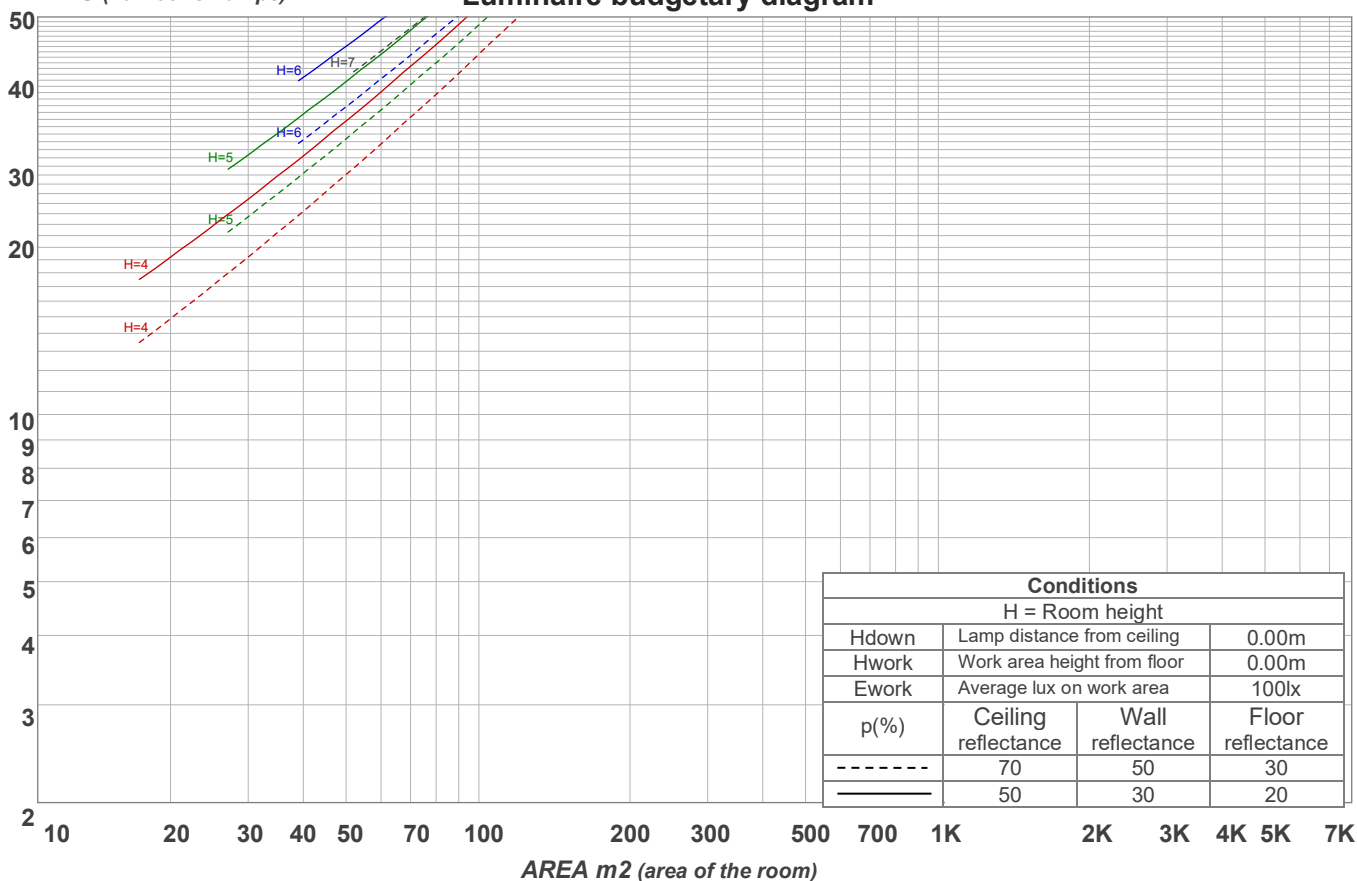
Viso Systems Aps – Copenhagen, Denmark – [www.visosystems.com](http://www.visosystems.com)

### 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 | 110 | 110 | 110 | 106 | 106 | 106 | 101 | 101 | 101 | 99 |
| 1                   | 108  | 103 | 99  | 95  | 105 | 101 | 97  | 93  | 96  | 93  | 90  | 92  | 89  | 87  | 88  | 86  | 84  | 82 |
| 2                   | 98   | 89  | 82  | 77  | 95  | 87  | 81  | 76  | 84  | 78  | 74  | 80  | 76  | 72  | 77  | 73  | 70  | 68 |
| 3                   | 89   | 78  | 70  | 63  | 87  | 77  | 69  | 63  | 73  | 67  | 61  | 71  | 65  | 60  | 68  | 63  | 59  | 57 |
| 4                   | 81   | 69  | 60  | 53  | 79  | 68  | 59  | 53  | 65  | 58  | 52  | 63  | 56  | 51  | 60  | 55  | 50  | 48 |
| 5                   | 75   | 62  | 53  | 46  | 73  | 60  | 52  | 45  | 58  | 51  | 45  | 56  | 49  | 44  | 54  | 48  | 44  | 41 |
| 6                   | 69   | 55  | 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  | 39  | 34  | 32 |
| 8                   | 59   | 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  | 27  | 38  | 32  | 27  | 25 |
| 10                  | 52   | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23 |

LAMPS (number of lamps)

Luminaire budgetary diagram



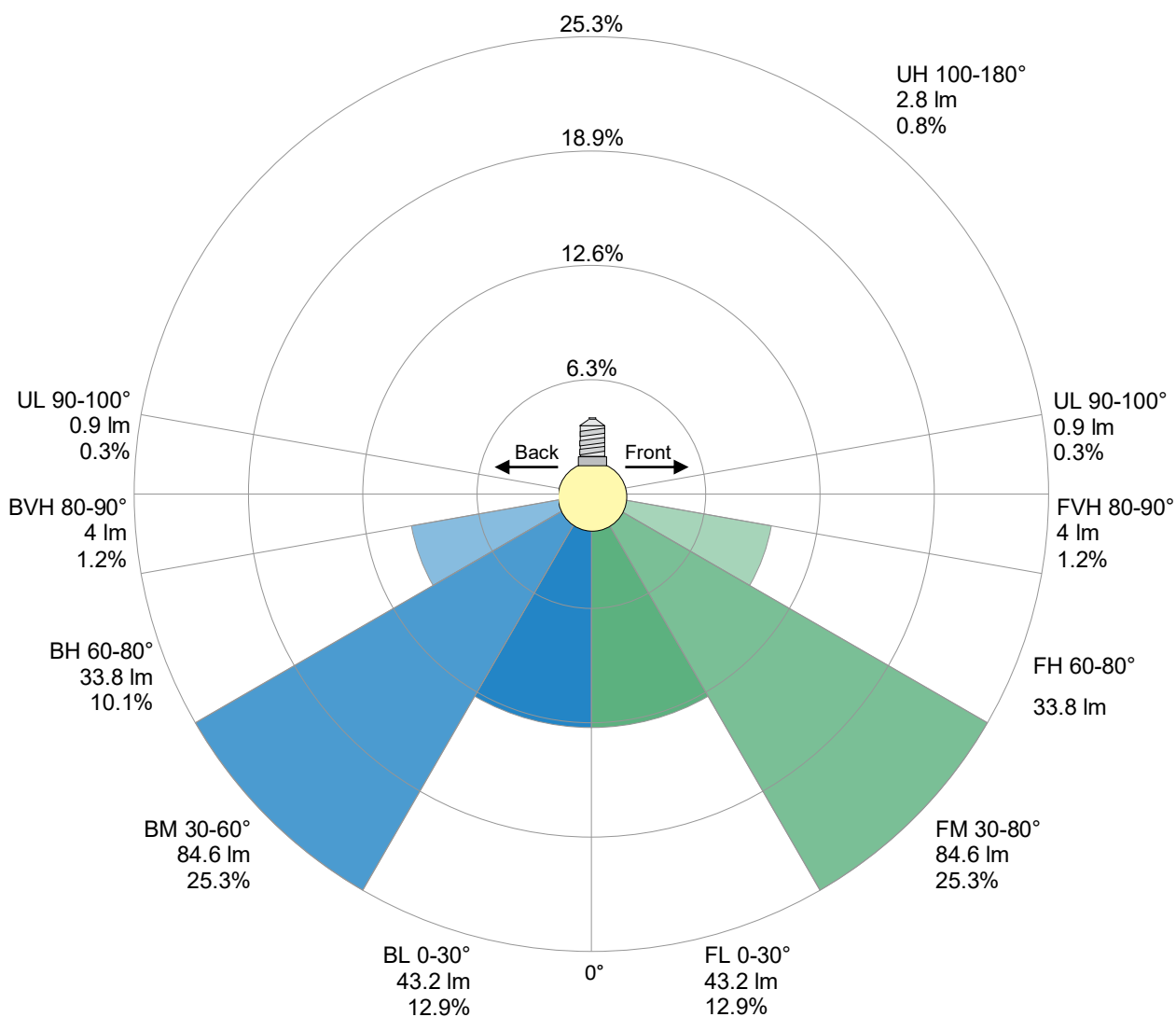
### Zonal Lumen Summary

| 0°-10°    | 10°-20°   | 20°-30°   | 30°-40°   | 40°-50°   | 50°-60°   | 60°-70°   | 70°-80°   | 80°-90°   |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| {LUM0-10} | 30.1 lm   | 45.9 lm   | 56.0 lm   | 59.0 lm   | 54.3 lm   | 42.4 lm   | 25.2 lm   | 8.05 lm   |
| 90°-100°  | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 0.879 lm  | 0.508 lm  | 0.494 lm  | 0.471 lm  | 0.429 lm  | 0.372 lm  | 0.293 lm  | 0.184 lm  | 0.064 lm  |

**LCS table**

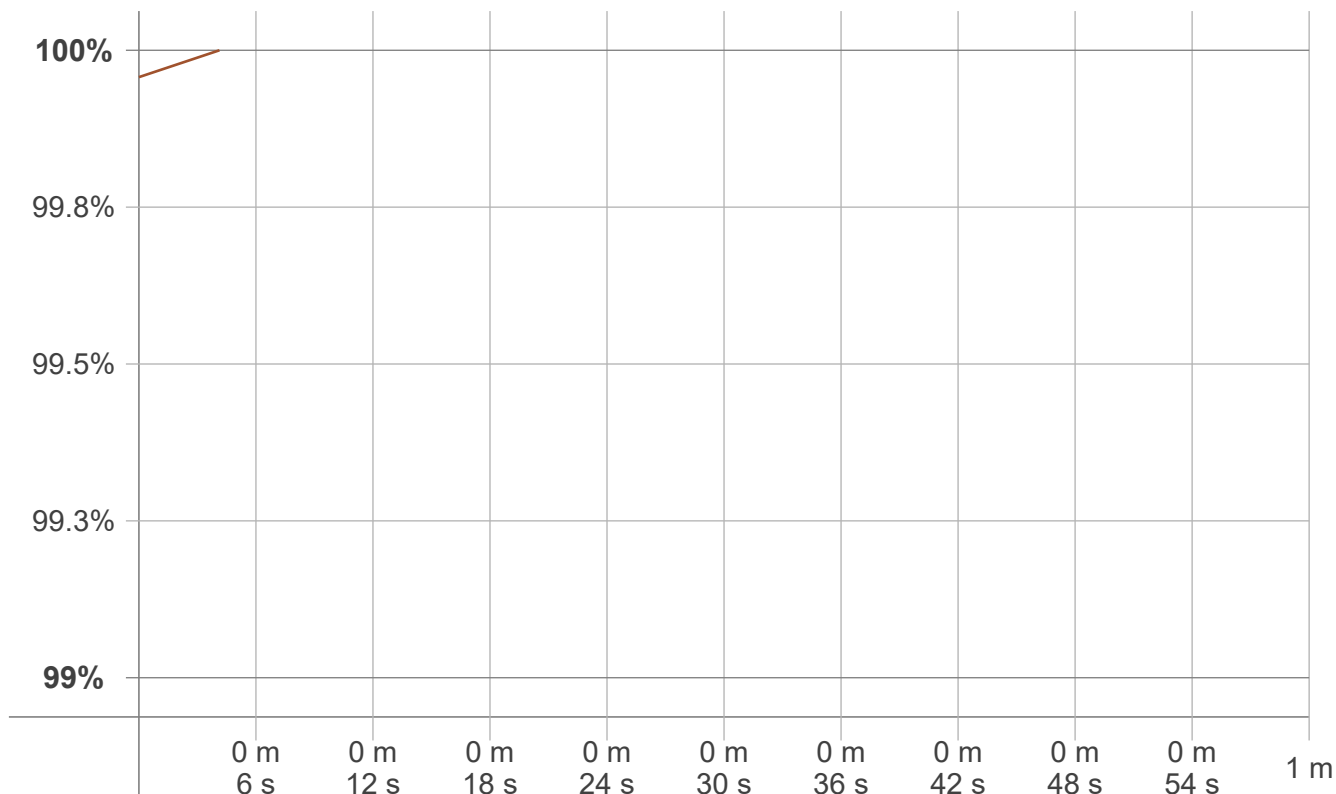
| BUG rating:       | B0 U1 G0 |          |
|-------------------|----------|----------|
| Forward light     | Lumens   | Lumens % |
| Low(0-30):        | 43.2     | 12.9%    |
| Medium(30-60):    | 84.6     | 25.3%    |
| High(60-80):      | 33.8     | 10.1%    |
| Very high(80-90): | 4        | 1.2%     |
| Back light        |          |          |
| Low(0-30):        | 43.2     | 12.9%    |
| Medium(30-60):    | 84.6     | 25.3%    |
| High(60-80):      | 33.8     | 10.1%    |
| Very high(80-90): | 4        | 1.2%     |
| Uplight           |          |          |
| Low(90-100):      | 0.9      | 0.3%     |
| High(100-180):    | 2.8      | 0.8%     |

**LCS graph**





**Warmup curve**



**Warmup result**

|                  |               |
|------------------|---------------|
| Warmup time:     | Not completed |
| Warmup variation | +0.0%         |

**Warmup conditions**

|                    |        |
|--------------------|--------|
| Stable period:     | 15 min |
| Stable change max: | 2.0%   |
| Minimum time:      | 15 min |

**Color temperature change**

| CCT start | CCT change | CCT end |
|-----------|------------|---------|
| 4222 K    | +1 K       | 4223 K  |

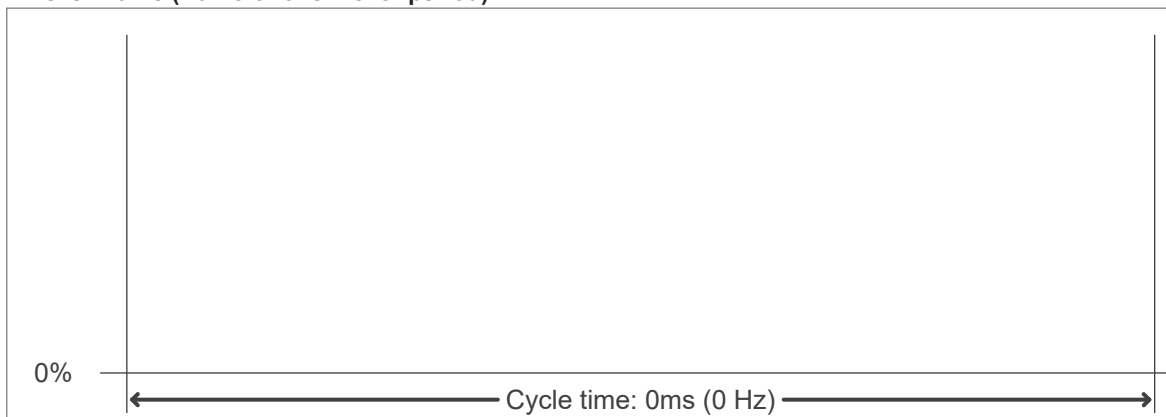
**Output change**

| Output start | Output change | Output end |
|--------------|---------------|------------|
| 335 lm       | + lm          | 335 lm     |

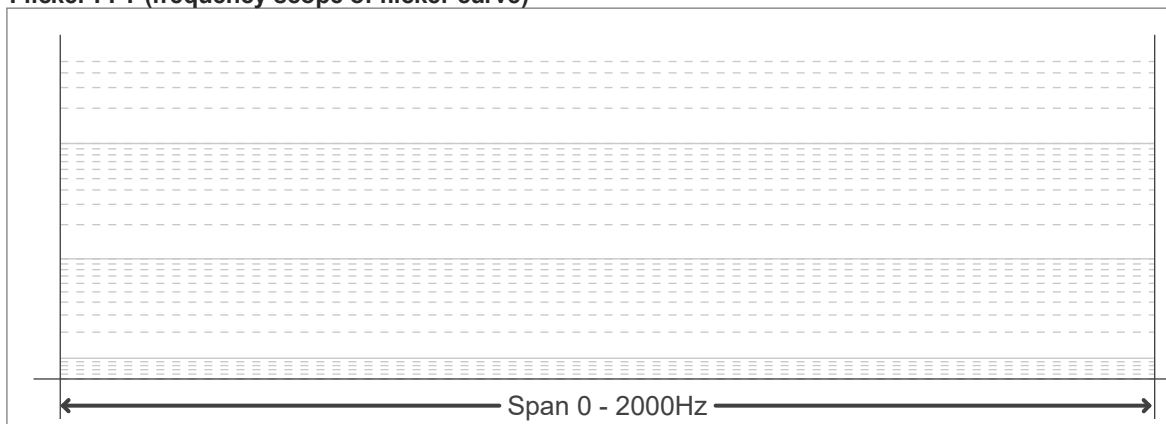
**Flicker curve (complete sampled flicker signal)**



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



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



**Flicker results:**

| Flicker frequency:    |       | n/a Hz        |       |
|-----------------------|-------|---------------|-------|
| Flicker index:        | n/a   | JA8/10 40Hz   | n/a % |
| Flicker percentage:   | n/a % | JA8/10 90Hz   | n/a % |
| SVM: (Visual flicker) | n/a   | JA8/10 200Hz  | n/a % |
| PstLM                 | n/a   | JA8/10 400Hz  | n/a % |
| Mp                    | n/a   | JA8/10 1000Hz | n/a % |

**Flicker conditions:**

|              |                    |
|--------------|--------------------|
| Sample rate: | n/a samples/second |
|--------------|--------------------|