

Light efficiency:



Light quality:



Color temperature:

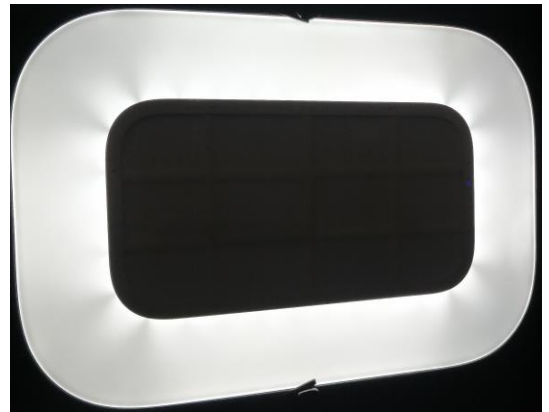


Output: 17197 lm

Peak: 7203 cd

Power: 193,4 W

PF: 0,97



Product name:

DTEC - Cloud - IC LGP - Outer Ring

Item number:

Date and time:

26-10-2018 11:31:24

Description:

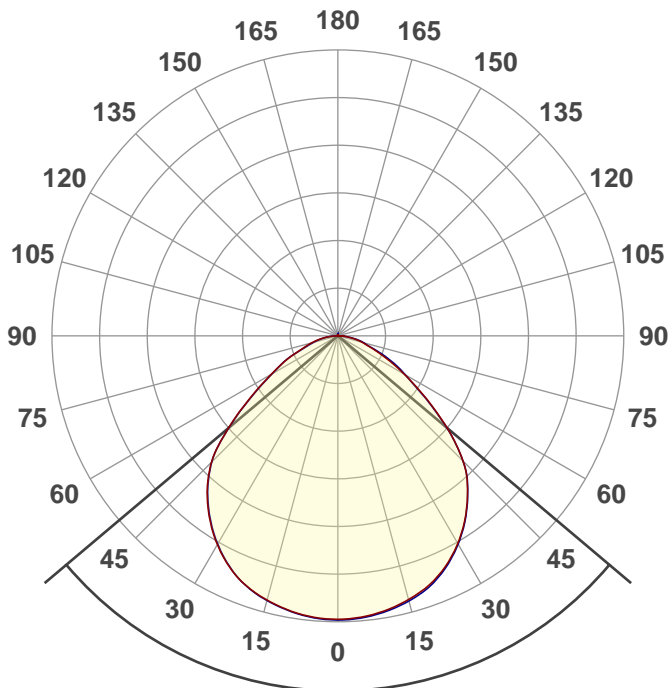
Measured in 8 planes.

Measured by Jakob D. Jepsen

Prism: Original

Foil: Original

LGP: IC

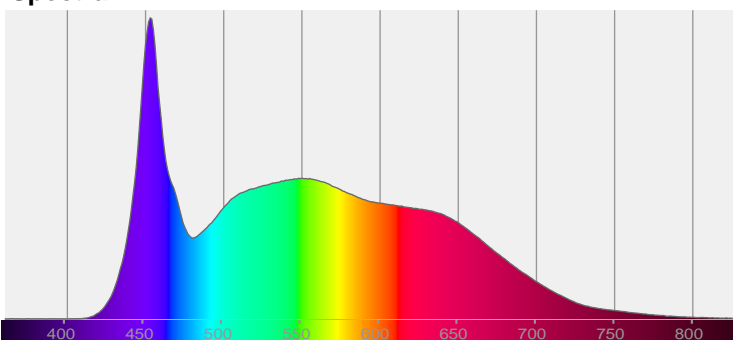


Beam angle **99,7°**

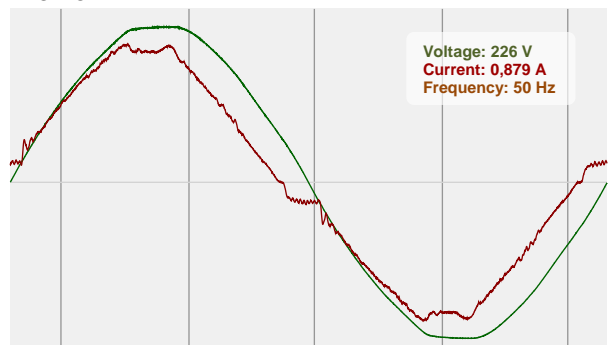


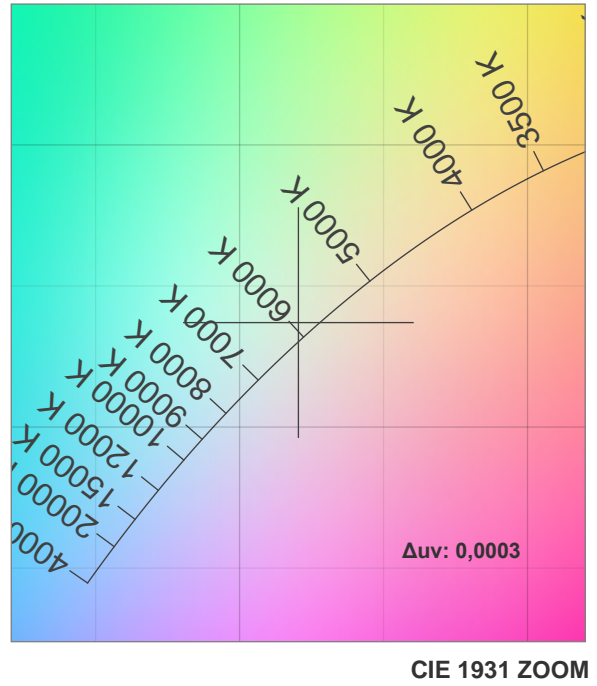
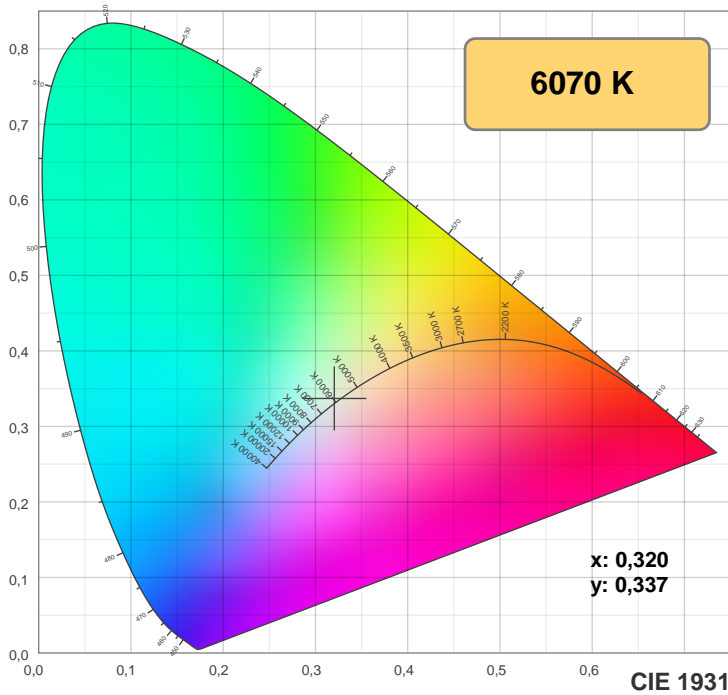
CIE 1931
x: 0,320
y: 0,337

Spectra



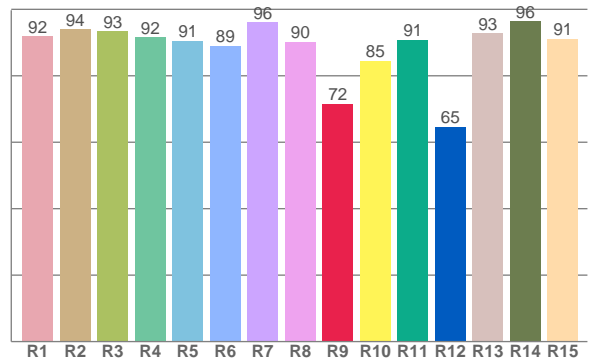
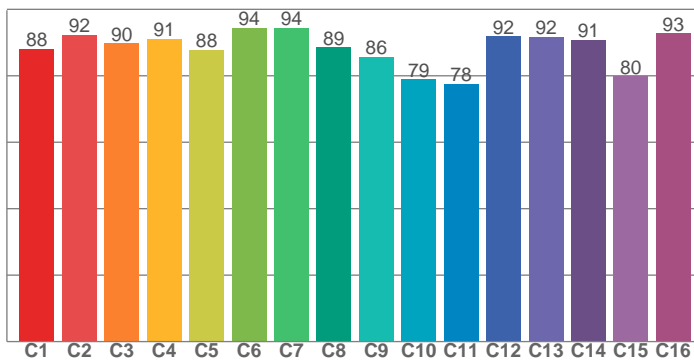
Power





TM30: 88,1

CRI: 92,1 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 91,9 | 94,1 | 93,3 | 91,6 | 90,6 | 89,0 | 96,1 | 90,2 | 71,5 | 84,5 | 90,9 | 64,6 | 92,8 | 96,4 | 91,2 |

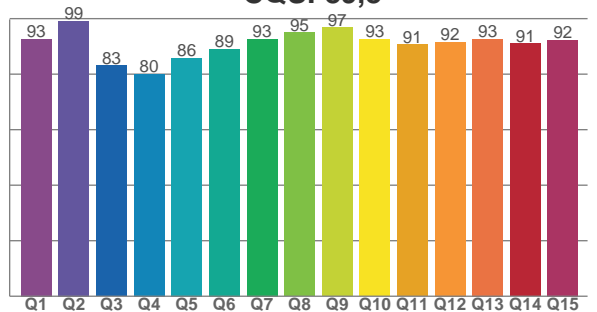
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 88,0 | 92,3 | 89,8 | 91,0 | 87,8 | 94,4 | 94,3 | 88,5 | 85,7 | 78,9 | 77,6 | 91,9 | 91,8 | 90,8 | 79,8 | 92,8 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92,7 | 99,2 | 83,1 | 80,0 | 85,9 | 89,0 | 92,6 | 95,0 | 96,8 | 92,5 | 90,7 | 91,6 | 92,7 | 91,1 | 92,3 |

CQS: 89,8



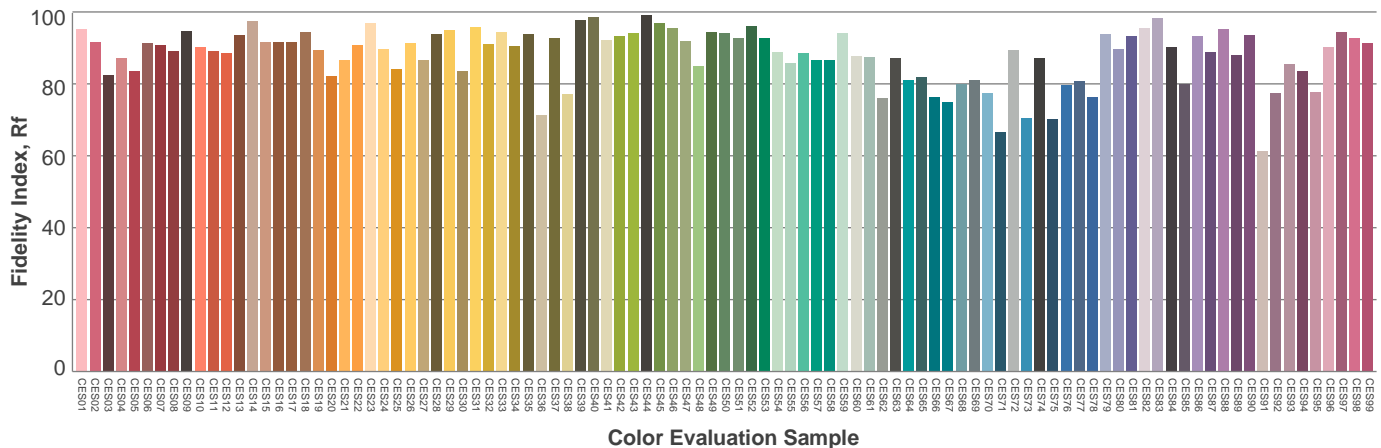
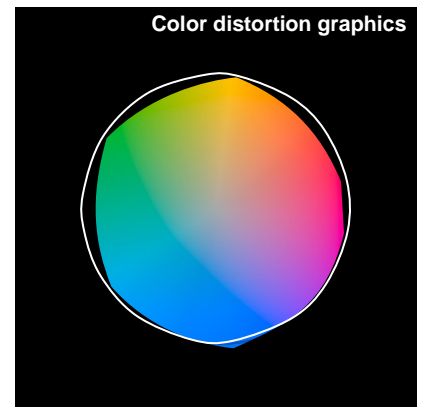
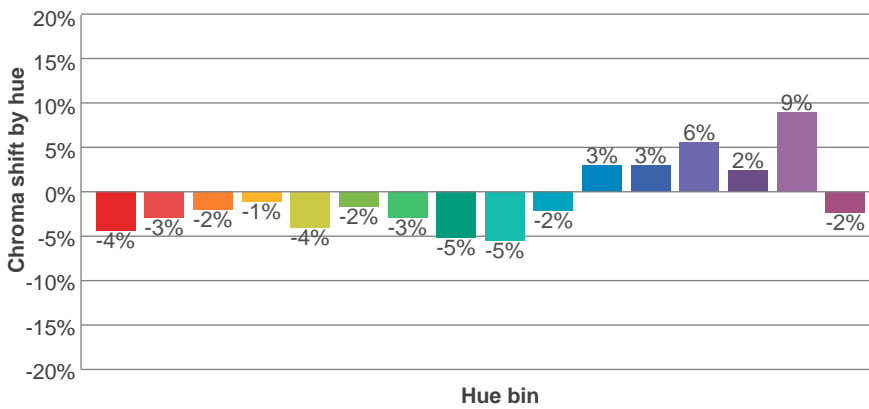
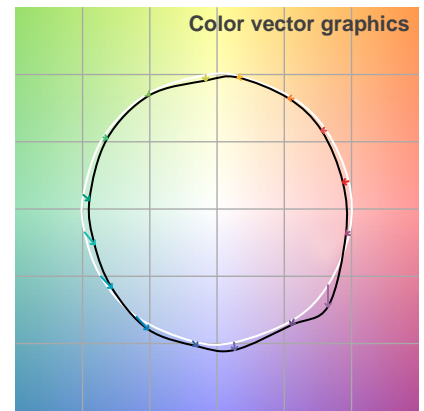
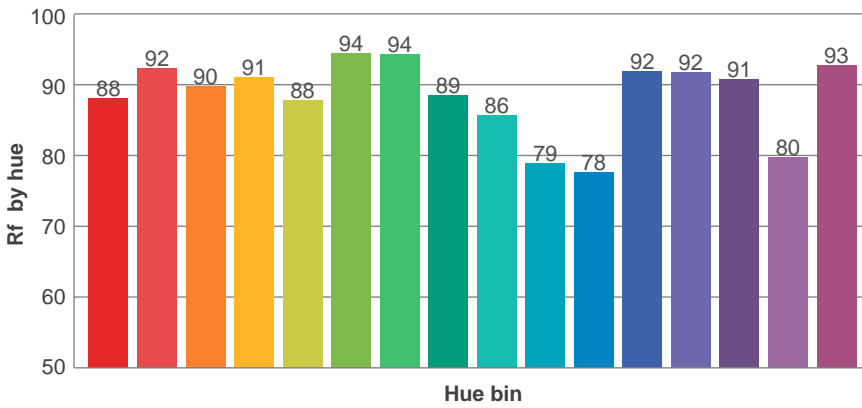
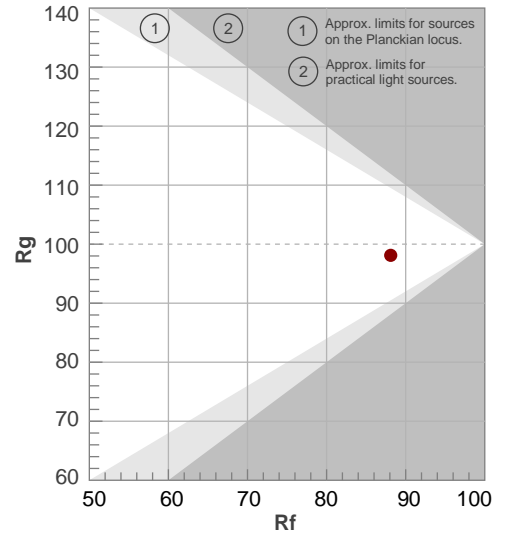
Color parameters

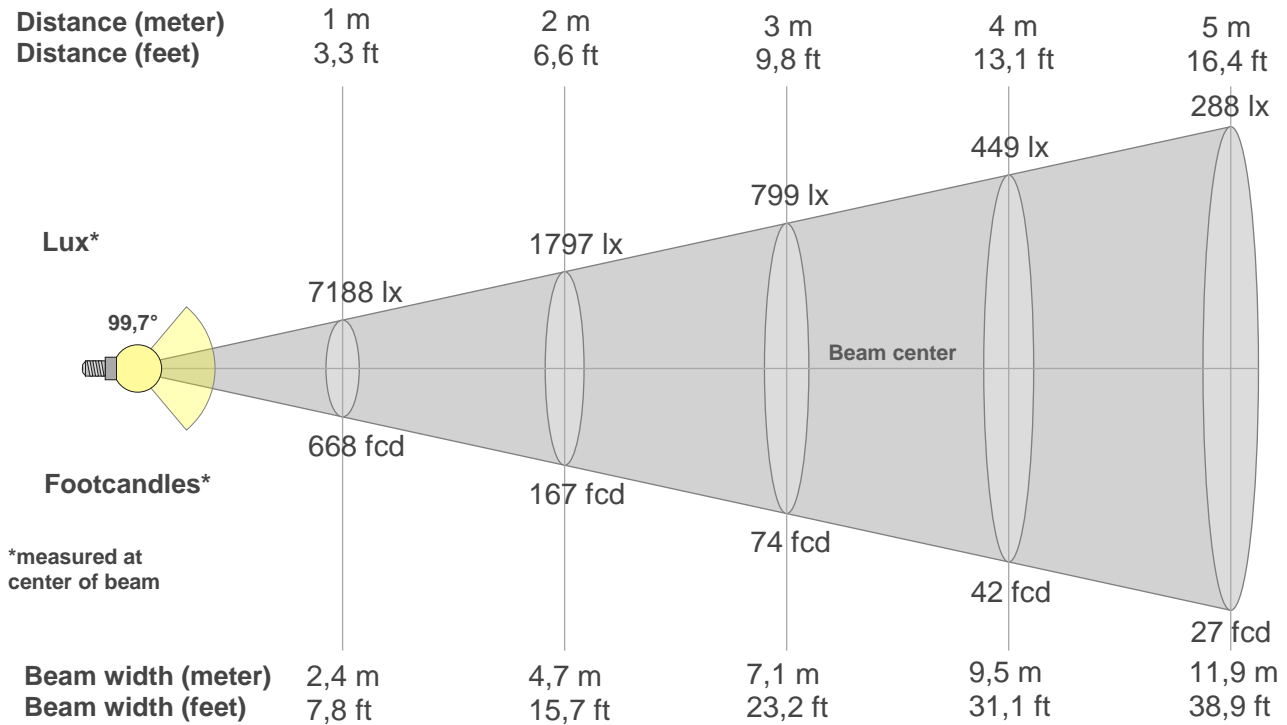
| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 6070 K | 92,1 | 71,5 | 88,1 | 98,1 | 89,8 | 0,320 | 0,337 | 0,200 | 0,316 | 0,0003 |

Rf 88,1
Fidelity index Rf

Rg 98,1
Gammut index Rg

| Hue Bin | R _f | Graphic shifts (%) | |
|---------|----------------|--------------------|------|
| | | Chroma | Hue |
| 1 | 88 | -4% | 0% |
| 2 | 92 | -3% | 2% |
| 3 | 90 | -2% | 4% |
| 4 | 91 | -1% | 3% |
| 5 | 88 | -4% | 1% |
| 6 | 94 | -2% | 0% |
| 7 | 94 | -3% | -1% |
| 8 | 89 | -5% | 3% |
| 9 | 86 | -5% | 10% |
| 10 | 79 | -2% | 12% |
| 11 | 78 | 3% | 12% |
| 12 | 92 | 3% | 4% |
| 13 | 92 | 6% | -1% |
| 14 | 91 | 2% | -4% |
| 15 | 80 | 9% | -13% |
| 16 | 93 | -2% | -2% |





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 |
| 7188lx | 1797lx | 799lx | 449lx | 288lx | 200lx | 147lx | 112lx | 89lx | 72lx | 59lx | 50lx | 43lx | 37lx | 32lx | 28lx | 25lx | 22lx | 20lx | 18lx |
| 667,8fcd | 166,9fcd | 74,2fcd | 41,7fcd | 26,7fcd | 18,5fcd | 13,6fcd | 10,4fcd | 8,2fcd | 6,7fcd | 5,5fcd | 4,6fcd | 4fcd | 3,4fcd | 3fcd | 2,6fcd | 2,3fcd | 2,1fcd | 1,8fcd | 1,7fcd |

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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| 7188 | 7147 | 7058 | 6918 | 6731 | 6449 | 6075 | 5627 | 5106 | 4471 | 3603 | 2707 | 1964 | 1381 | 938 | 645 | 409 | 194 | 42 | 7 |
| 100% | 99% | 98% | 96% | 94% | 90% | 85% | 78% | 71% | 62% | 50% | 38% | 27% | 19% | 13% | 9% | 6% | 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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| 7188 | 7170 | 7087 | 6957 | 6771 | 6477 | 6094 | 5640 | 5112 | 4467 | 3584 | 2675 | 1986 | 1473 | 990 | 679 | 442 | 202 | 40 | 6 |
| 100% | 100% | 99% | 97% | 94% | 90% | 85% | 78% | 71% | 62% | 50% | 37% | 28% | 20% | 14% | 9% | 6% | 3% | 1% | 0% |

Intensities in 180° c-plane

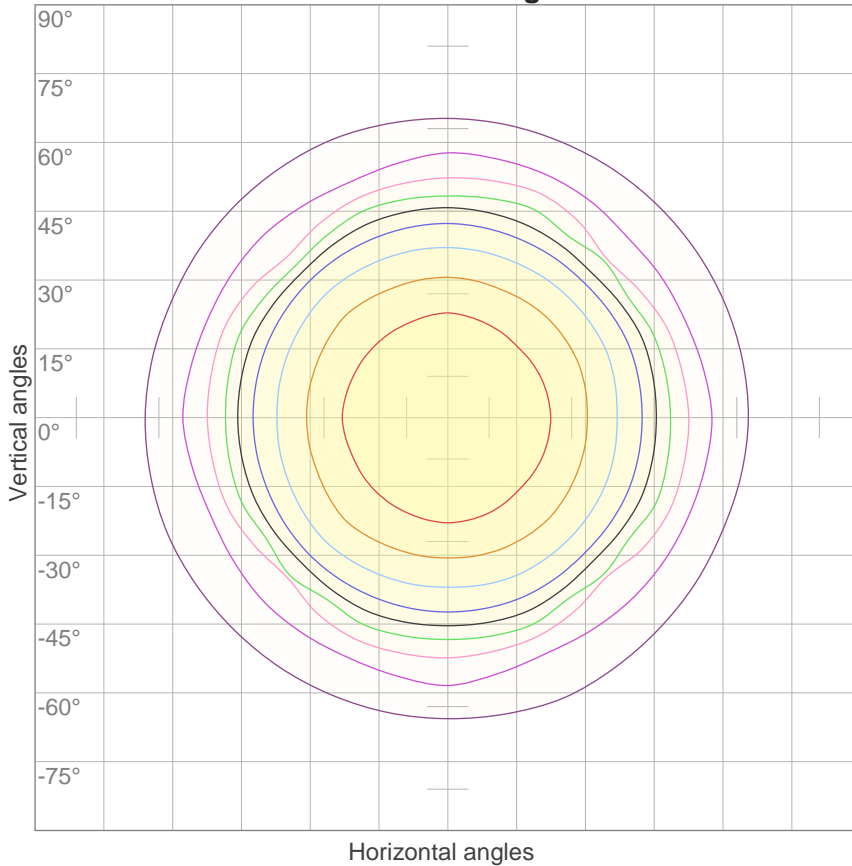
| 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| 7188 | 7152 | 7065 | 6929 | 6742 | 6469 | 6101 | 5657 | 5142 | 4506 | 3604 | 2685 | 1957 | 1432 | 969 | 689 | 443 | 212 | 41 | 6 |
| 100% | 99% | 98% | 96% | 94% | 90% | 85% | 79% | 72% | 63% | 50% | 37% | 27% | 20% | 13% | 10% | 6% | 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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| 7188 | 7166 | 7076 | 6939 | 6746 | 6460 | 6085 | 5638 | 5120 | 4489 | 3583 | 2657 | 1935 | 1446 | 921 | 631 | 415 | 207 | 43 | 7 |
| 100% | 100% | 98% | 97% | 94% | 90% | 85% | 78% | 71% | 62% | 50% | 37% | 27% | 20% | 13% | 9% | 6% | 3% | 1% | 0% |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 99,7° | 146,1° | 172,4° | 86,5% | 63,6% |

ISO candela diagram



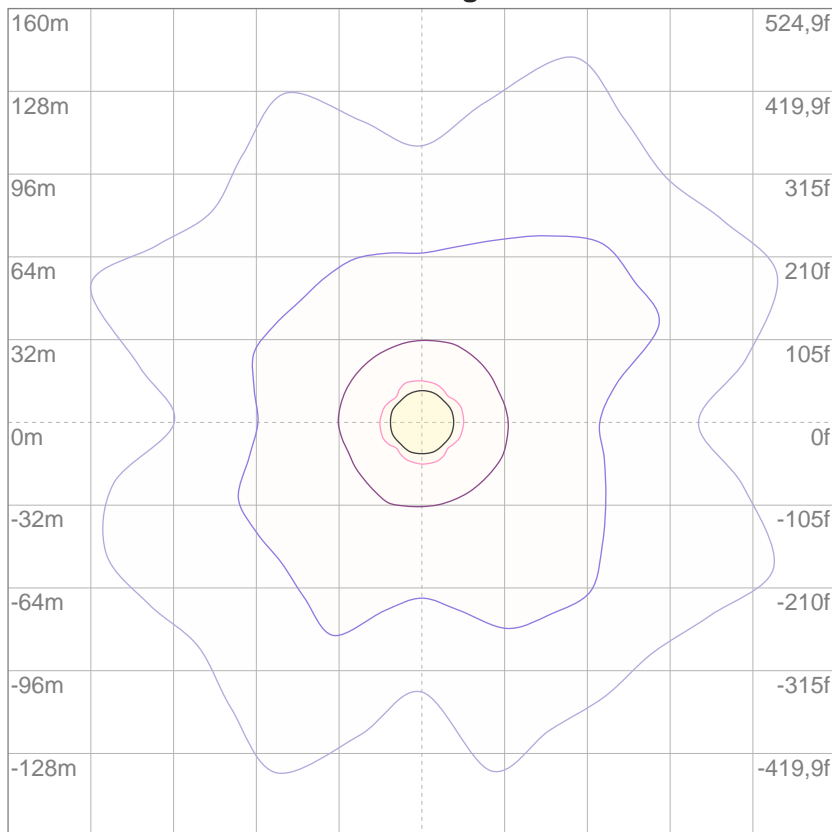
| | |
|-----|---------|
| 10% | 719 cd |
| 20% | 1438 cd |
| 30% | 2156 cd |
| 40% | 2875 cd |
| 50% | 3594 cd |
| 60% | 4313 cd |
| 70% | 5031 cd |
| 80% | 5750 cd |
| 90% | 6469 cd |

Conditions:

Number of c-planes: 16

Candela at center: 7188 cd

ISO lux diagram



| | |
|-----|---------|
| 3% | 2,16 lx |
| 5% | 3,59 lx |
| 10% | 7,19 lx |
| 30% | 21,6 lx |
| 50% | 35,9 lx |

Conditions:

Number of c-planes: 16

Lux at center: 71,9 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 X Y | | Viewing direction at right angles to lamp axis | | | | | Viewing direction parallel to lamp axis | | | | |
| 2H | 2H | 35,1 | 36,2 | 35,3 | 36,5 | 36,7 | 35,1 | 36,2 | 35,4 | 36,5 | 36,7 |
| | 3H | 35,8 | 36,8 | 36,1 | 37,1 | 37,4 | 35,9 | 36,9 | 36,2 | 37,2 | 37,5 |
| | 4H | 36,1 | 37,1 | 36,4 | 37,4 | 37,7 | 36,2 | 37,2 | 36,5 | 37,5 | 37,8 |
| | 6H | 36,4 | 37,3 | 36,7 | 37,6 | 37,9 | 36,5 | 37,4 | 36,9 | 37,7 | 38,1 |
| | 8H | 36,5 | 37,4 | 36,8 | 37,7 | 38,0 | 36,6 | 37,5 | 37,0 | 37,8 | 38,2 |
| | 12H | 36,5 | 37,4 | 36,9 | 37,7 | 38,1 | 36,7 | 37,6 | 37,1 | 37,9 | 38,2 |
| 4H | 2H | 35,3 | 36,3 | 35,7 | 36,6 | 36,9 | 35,4 | 36,4 | 35,7 | 36,6 | 36,9 |
| | 3H | 36,2 | 37,1 | 36,6 | 37,4 | 37,7 | 36,3 | 37,2 | 36,7 | 37,5 | 37,9 |
| | 4H | 36,7 | 37,4 | 37,1 | 37,8 | 38,1 | 36,8 | 37,6 | 37,2 | 37,9 | 38,3 |
| | 6H | 37,1 | 37,7 | 37,5 | 38,1 | 38,5 | 37,3 | 37,9 | 37,7 | 38,3 | 38,7 |
| | 8H | 37,2 | 37,8 | 37,7 | 38,2 | 38,7 | 37,5 | 38,1 | 37,9 | 38,5 | 38,9 |
| | 12H | 37,4 | 37,9 | 37,8 | 38,3 | 38,8 | 37,6 | 38,1 | 38,1 | 38,6 | 39,0 |
| 8H | 4H | 36,8 | 37,4 | 37,3 | 37,8 | 38,2 | 37,0 | 37,6 | 37,4 | 38,0 | 38,4 |
| | 6H | 37,4 | 37,9 | 37,9 | 38,3 | 38,8 | 37,6 | 38,1 | 38,1 | 38,5 | 39,0 |
| | 8H | 37,7 | 38,1 | 38,1 | 38,5 | 39,0 | 37,9 | 38,3 | 38,4 | 38,8 | 39,3 |
| | 12H | 37,9 | 38,3 | 38,4 | 38,7 | 39,3 | 38,1 | 38,5 | 38,6 | 39,0 | 39,5 |
| 12H | 4H | 36,8 | 37,4 | 37,3 | 37,8 | 38,2 | 37,0 | 37,5 | 37,4 | 38,0 | 38,4 |
| | 6H | 37,4 | 37,9 | 37,9 | 38,3 | 38,8 | 37,7 | 38,1 | 38,1 | 38,5 | 39,0 |
| | 8H | 37,8 | 38,1 | 38,3 | 38,6 | 39,1 | 38,0 | 38,4 | 38,5 | 38,8 | 39,4 |
| Variation of the observer position for the luminaire distance S | | | | | | | | | | | |
| S = 1,0H | | +0,3 / -0,3 | | | | | +0,3 / -0,3 | | | | |
| S = 1,5H | | +0,5 / -0,8 | | | | | +0,5 / -0,7 | | | | |
| S = 2,0H | | +1,3 / -1,3 | | | | | +1,2 / -1,2 | | | | |
| Standard table | | BK04 | | | | | BK04 | | | | |
| Correction summand | | 20,0 | | | | | 20,1 | | | | |
| Corrected glare indices referring to 17197 lm total luminous flux | | | | | | | | | | | |

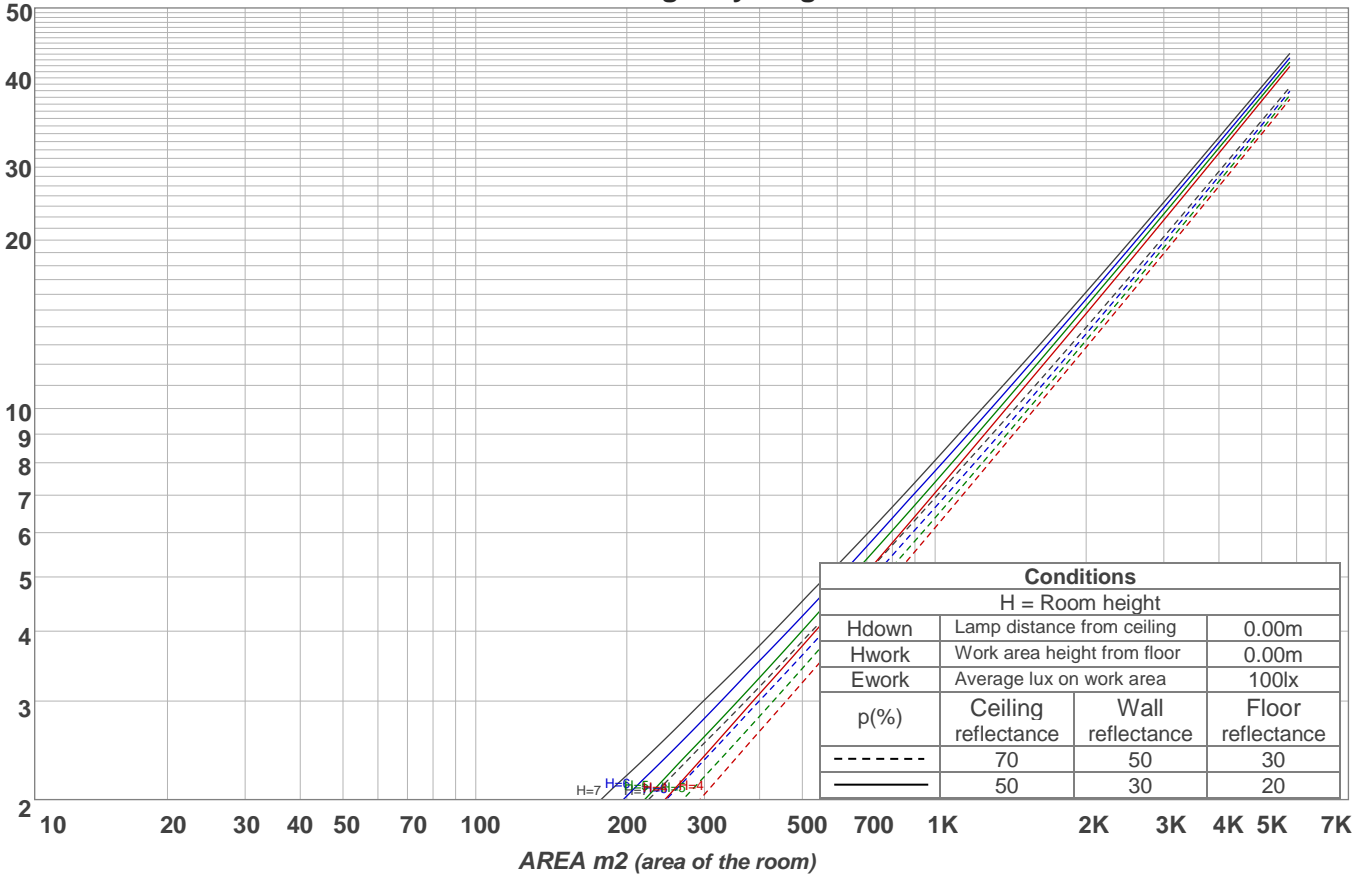
UGR data could be incorrect as lamp output is not symmetrical. Goto Edit->Photometric->Corrections and select Correct asymmetry.

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 | 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 | 102 | 102 | 102 | 99 | |
| 1 | 110 | 106 | 102 | 98 | 107 | 103 | 100 | 97 | 99 | 96 | 94 | 95 | 93 | 91 | 91 | 90 | 88 | 86 | |
| 2 | 101 | 94 | 87 | 82 | 98 | 92 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 79 | 76 | 74 | |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 73 | 69 | 66 | 64 | |
| 4 | 86 | 75 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 | |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 | |
| 6 | 73 | 61 | 52 | 46 | 71 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 55 | 49 | 45 | 43 | |
| 7 | 68 | 55 | 47 | 41 | 66 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 45 | 41 | 50 | 45 | 40 | 38 | |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 47 | 41 | 36 | 46 | 41 | 36 | 34 | |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 | |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 28 | |

LAMPS (number of lamps)

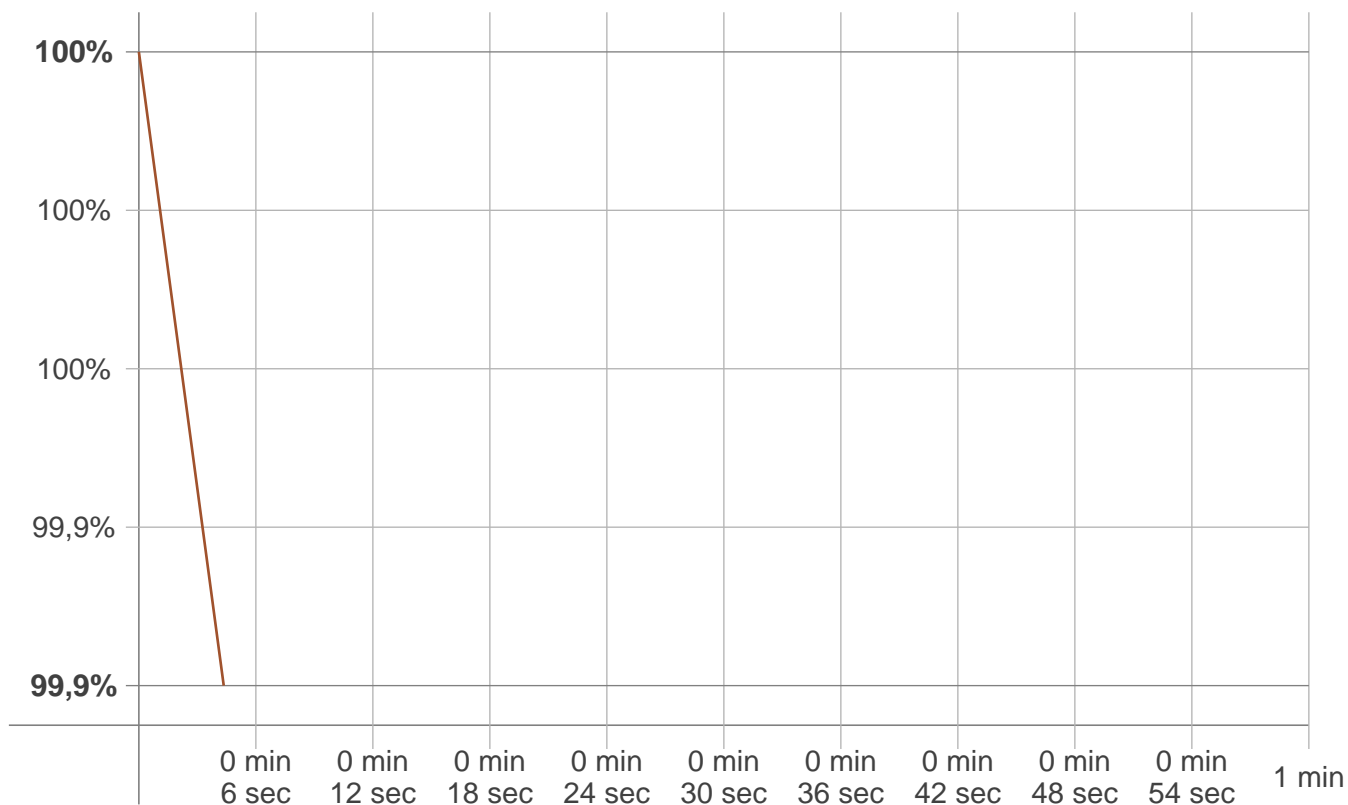
Luminaire budgetary diagram



Zonal Lumen Summary

| | | | | | | | | |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0°-10° | 10°-20° | 20°-30° | 30°-40° | 40°-50° | 50°-60° | 60°-70° | 70°-80° | 80°-90° |
| 681 lm | 1956 lm | 2969 lm | 3536 lm | 3420 lm | 2316 lm | 1295 lm | 677 lm | 256 lm |
| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 11,4 lm | 10,1 lm | 12,4 lm | 13,5 lm | 13,3 lm | 12,2 lm | 10,1 lm | 6,69 lm | 2,38 lm |

Warmup curve



Warmup result

| | |
|-------------------------|----------------------|
| Warmup time: | Not completed |
| Warmup variation | -0,1% |

Warmup conditions

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

Color temperature change

| CCT start | CCT change | CCT end |
|------------------|-------------------|----------------|
| 6068 K | +2 K | 6070 K |

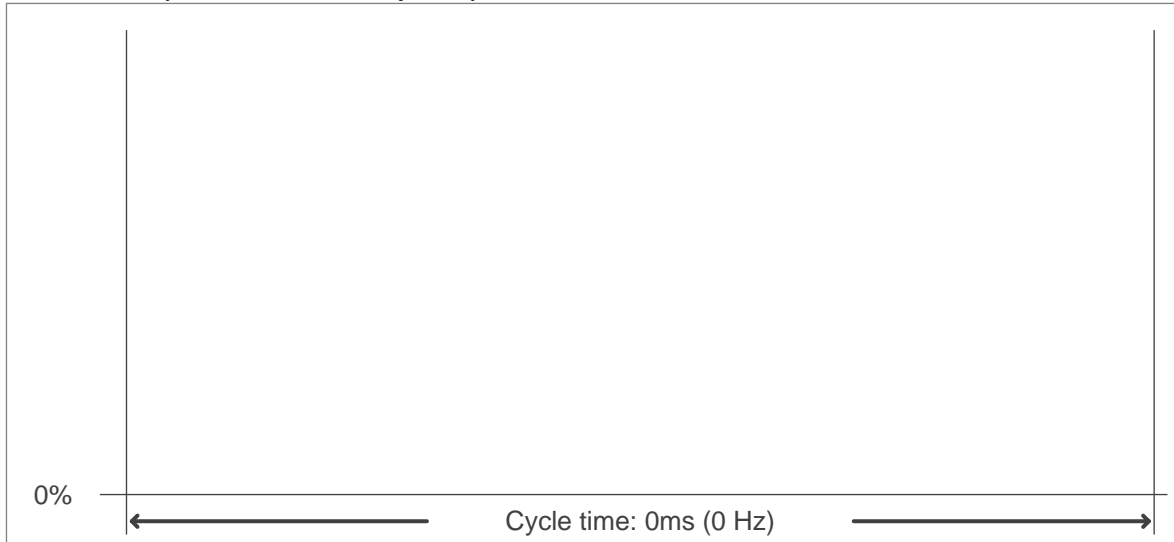
Output change

| Output start | Output change | Output end |
|---------------------|----------------------|-------------------|
| 17214 lm | -17 lm | 17197 lm |

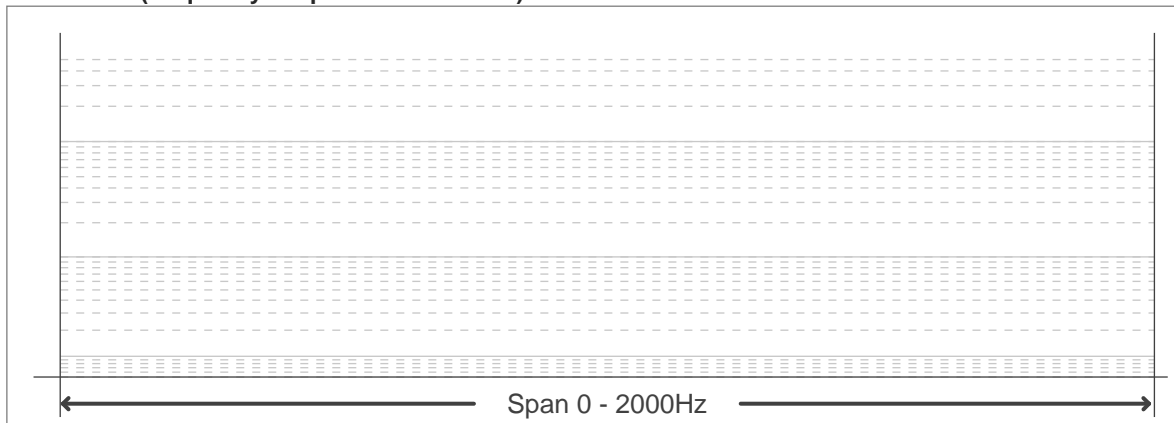
Flicker curve (complete sampled flicker signal)



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 |
| Flicker percentage: | n/a % |
| SVM: (Visual flicker) | n/a |

Flicker conditions:

| | |
|---------------------|-------------------------|
| Sample rate: | 0 samples/second |
|---------------------|-------------------------|