# Light Measurement Report

Print date: 9-10-2025
Measurement date and time: 9-10-2025 10:47:15 – Measurement no. VFR-251009-3617-MS
Measurement tracking No. and Link: VT251009-004279
Operator:

## Laboratory and Equipment

| | |
|---|---|
| Laboratory Owner and Location | Viso Systems, Copenhagen V, Denmark |
| Goniospectrometer System and Type | LabSpion – Type C, horizontal |
| Sensor Name, Calibr. Date and Serial No. | LabSensor Model2 – 11-1-2024 – 3130191315 |
| Spectrometer Manufacturer and Model | Ibsen Photonics, Denmark – Freedom VIS (Custom Viso) |

## Measurement Conditions

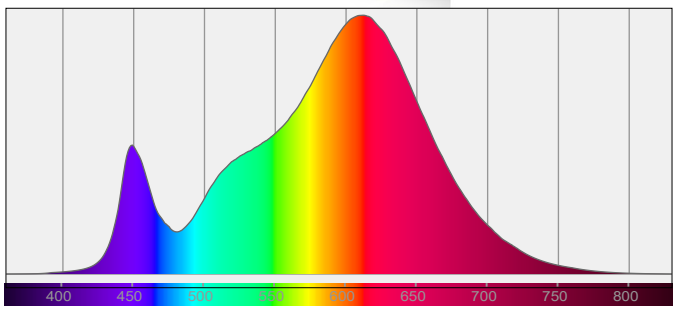
| | |
|---|---|
| Number of C-planes and Resolution | 32 planes – 11,25° |
| γ (gamma)-Resolution | 5° |
| Test Distance | 1,99 m |
| Input Power, Power and Displ. Factors | 5,7 W – PF 0,81 – DPF 0,85 |
| Input RMS Voltage and Current | 230 V – 0,030 A |
| Frequency of Input Power | 50 Hz |
| Warm-up Time and Variation | Lamp stabilized in 15 min 1 sec – 2,0% |

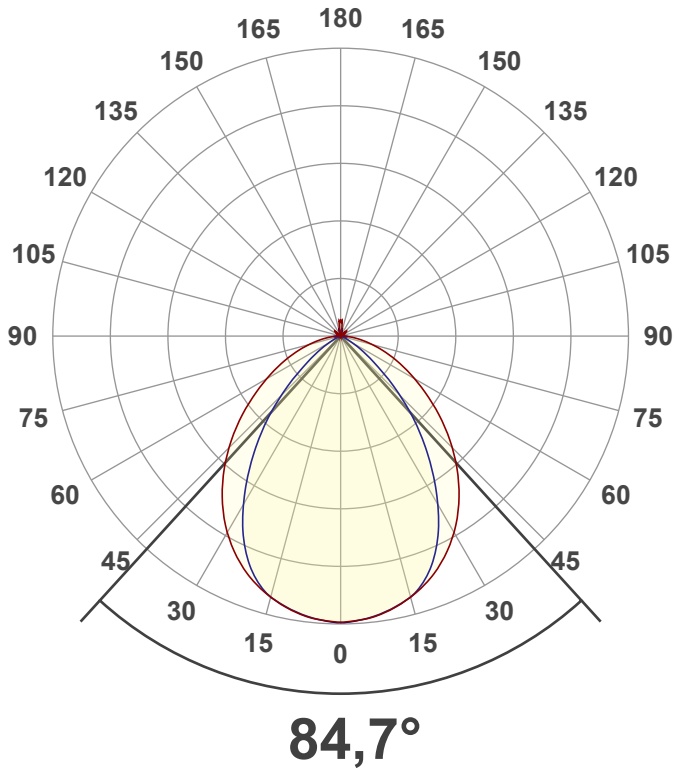
## Tested Light Source

| | |
|---|---|
| Product Name | 847882-2200K-3000K |
| Item No. and Manufacturer | 847882-2200K-3000K – Dutchfulfillment |
| Product Description (line 1) | LED CUBE \| THEBE \| 2x3W \| DIM TO WARM \| ZWART |

## Main Light Measurement Results

| | |
|---|---|
| Output – Total Lumen (Up% / Down%) | 149 lm – 2,61% / 97,39% |
| Efficiency | 26 lm/W |
| Peak Intensity and Beam Angle | 77,4 cd – 84,7° |
| Correlated Color Temperature, Target/Measured | CCT = 2800 K / 2815 K |
| Color Rendering Index | CRI 87,5 |
| Color Rendering TM30-18 | $R_f$ 86,6 – $R_g$ 100,7 |
| Color Shift, CIE duv and MacAdam Steps | Duv -0,0052 – SDCM 5,6 |
| Flicker | SVM 0,01 – PstLM 0,01 |

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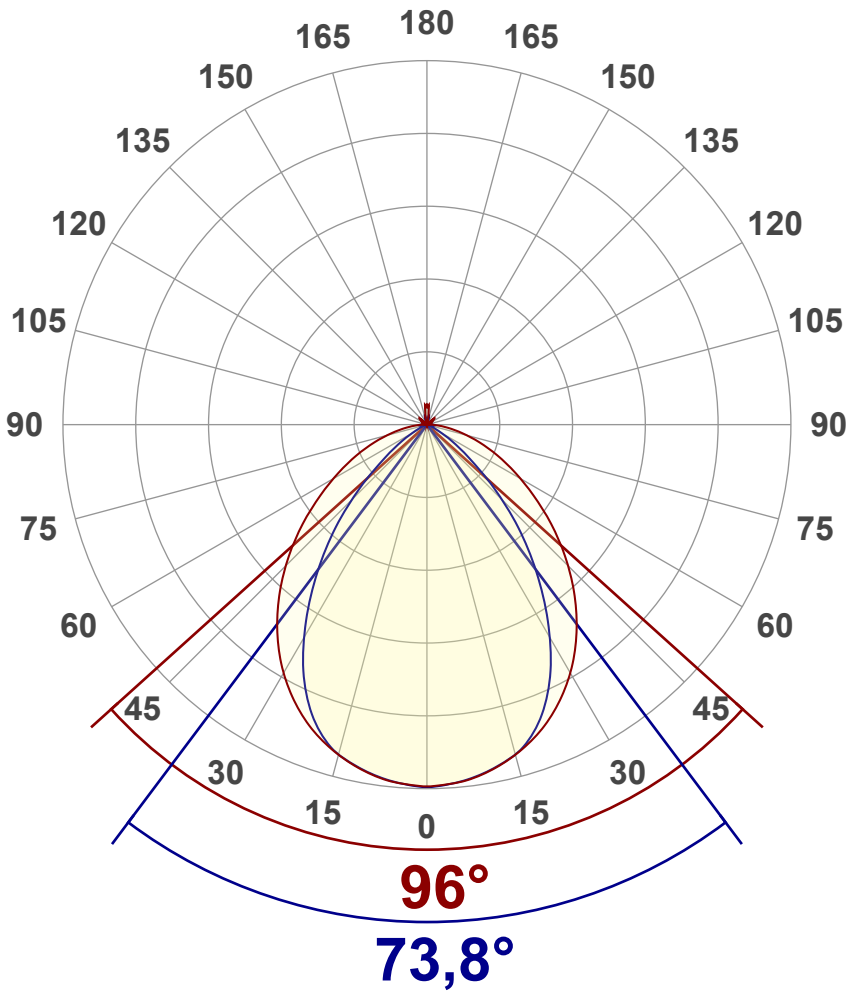
**Luminous Intensity diagram** Unit: 0-100% of peak intensity




## Main Values

| | |
|---|---|
| Output (total Lumen) | 149 lm |
| Lumen Up% / Down% | 2,61% / 97,39% |
| Peak Intensity | 77,4 cd |
| Beam Angle (50%) | 84,7° |
| Beam Angle (90%) | 73,8° |
| Beam Angle (10%) | 95,7° |

## Cut-off Angle

| | |
|---|---|
| Average 2,5% | 301,1° |

## Field Angle

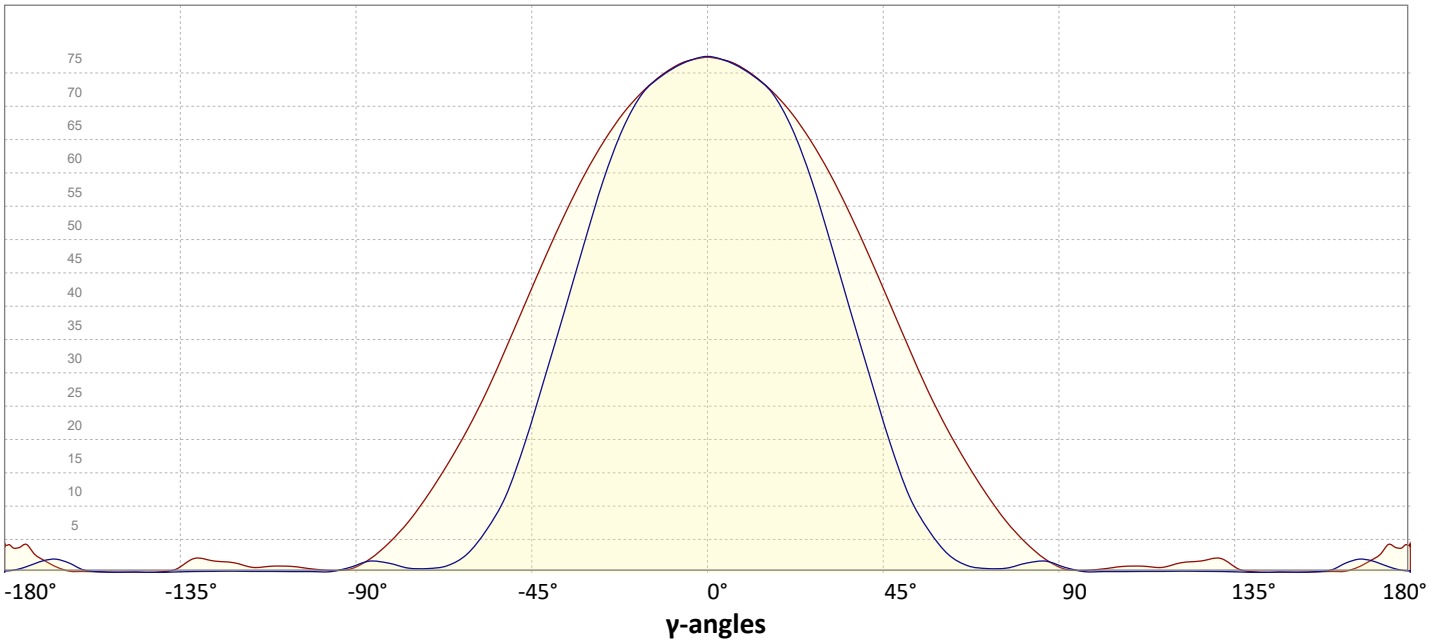
| | |
|---|---|
| Average 10% | 131,2° |

## Intensity Ratio

| | |
|---|---|
| In 120° cone | 87,4% |
| In 90° cone | 68,5% |

**C000-C180**
**C090-C270**

**Linear distribution diagram** - Intensity (candela) vs γ-angle



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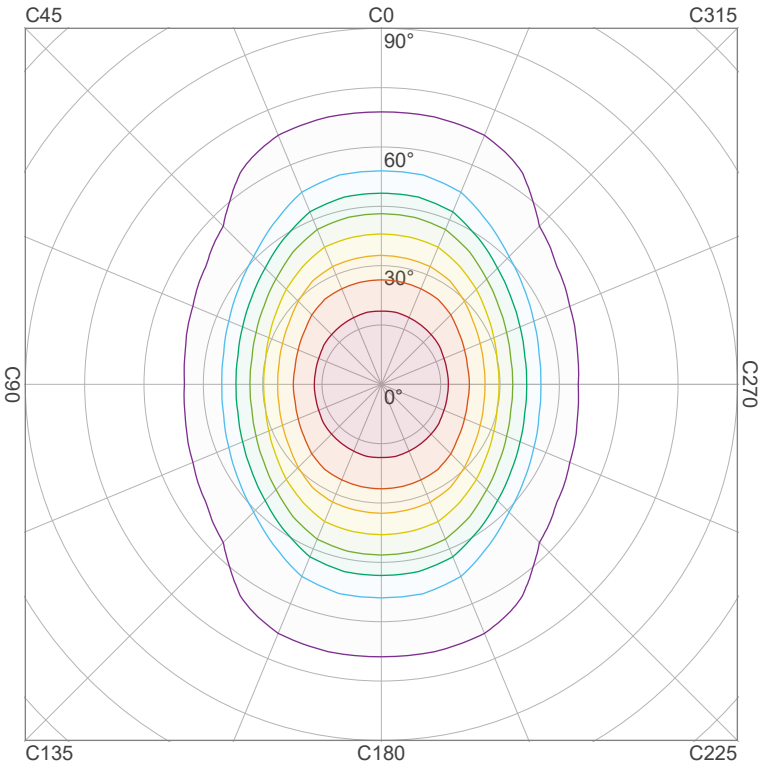
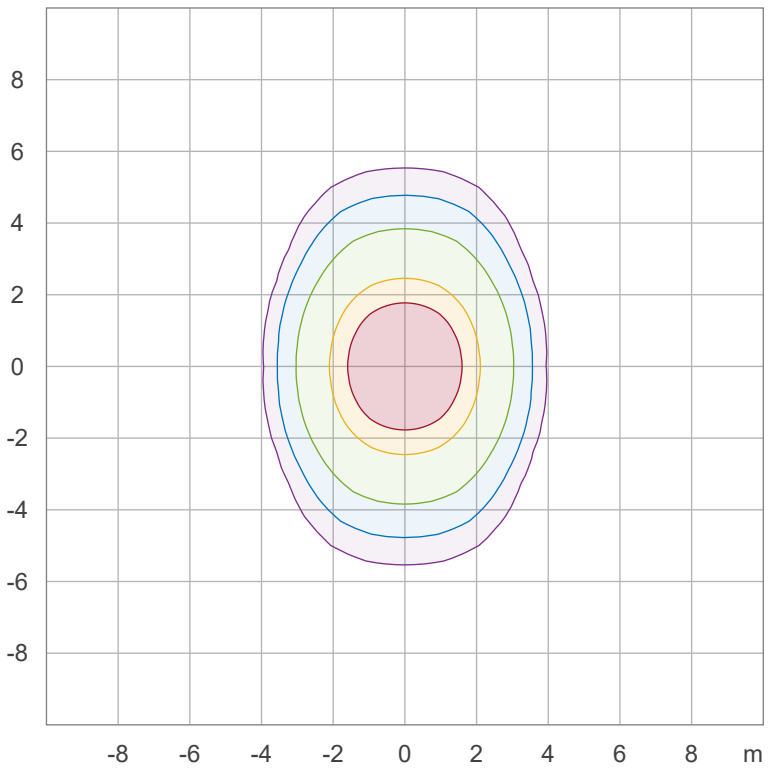
## Iso-intensity Diagram (Iso-candela)




| | |
|---|---|
| 90 % | 69,6 cd |
| 80 % | 61,9 cd |
| 70 % | 54,2 cd |
| 60 % | 46,4 cd |
| 50 % | 38,7 cd |
| 40 % | 30,9 cd |
| 30 % | 23,2 cd |
| 20 % | 15,5 cd |
| 10 % | 7,7 cd |

Peak intensity: 77,4 cd
Number of c-planes: 32

## Iso-illuminance Diagram (Iso-lux)




| | |
|---|---|
| 50,0 % | 4,3 lx |
| 30,0 % | 2,6 lx |
| 10,0 % | 0,9 lx |
| 5,0 % | 0,4 lx |
| 3,0 % | 0,3 lx |

Peak illuminance: 8,6 lx
Mounting height: 3,0 m
Number of c-planes: 32

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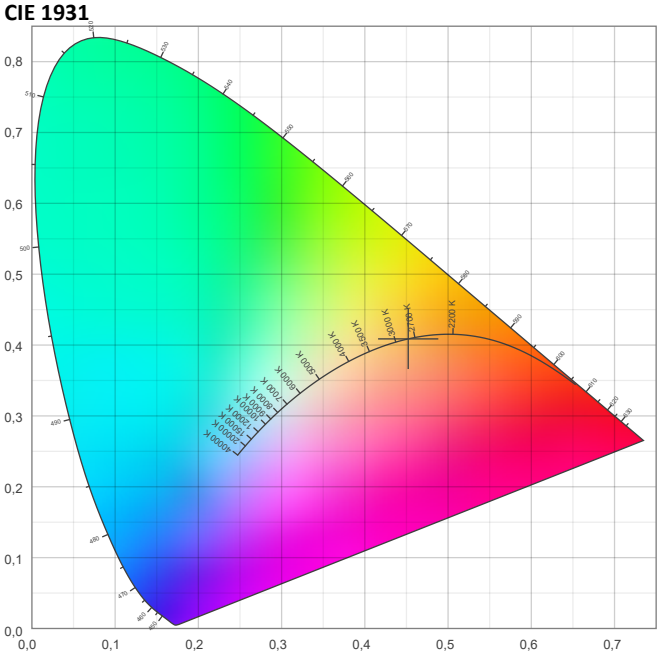
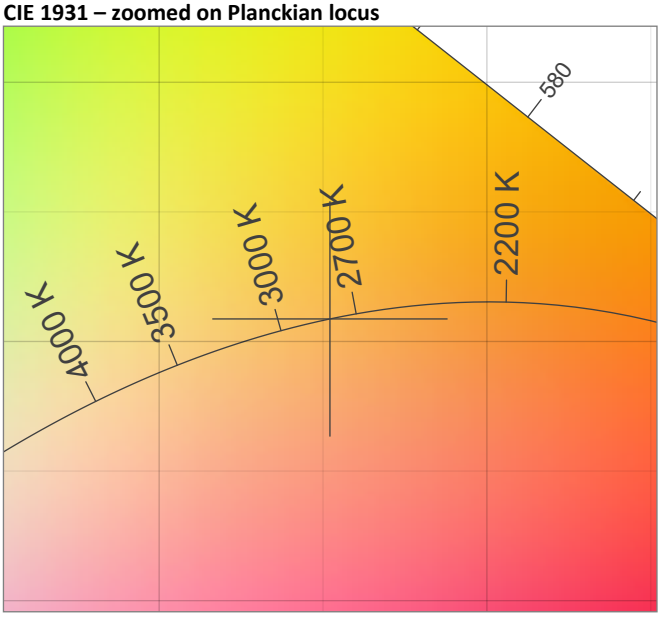
## Color details

| | |
|---|---|
| Correlated Color Temperature, Target | CCT = 2800 K |
| Correlated Color Temperature, Measured | CCT = 2815 K |
| Color Rendering Index | CRI 87,5 |
| Color Rendering Index, R9 (red component) | R9 = 29,9 |
| Color Rendering TM30-18 | $R_f$ 86,6 – $R_g$ 100,7 |
| Color Quality Scale | CQS = 84,2 |
| MacAdam Steps | SDCM = 5,6 |
| Color coordinates CIE 1931 | (x;y) = (0,452;0,409) |
| Color coordinate CIEs 1960 | (u;v) = (0,258;0,350) |
| Color deviation from BBL | Duv = -0,0052 |
| Color coordinate CIEs 1976 (CIELUV) | (u';v') = (0,258;0,525) |

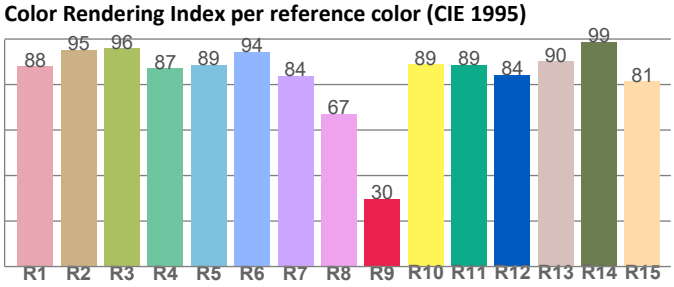
**CIE 1931**



**CIE 1931 – zoomed on Planckian locus**



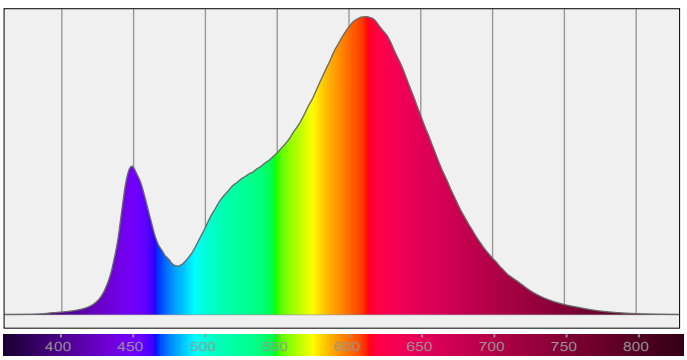

**Color Rendering Index per reference color (CIE 1995)**



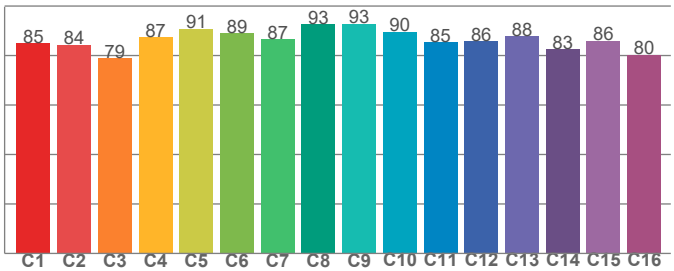

CRI R values, only R1-R8 are used to calculate final CRI value

| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 88,2 | 95,2 | 95,8 | 87,0 | 88,7 | 94,4 | 83,9 | 67,1 | 29,9 | 89,0 | 88,7 | 84,3 | 90,3 | 98,7 | 81,5 |

**Spectral power distribution (SPD) / W/nm – 0-100%**



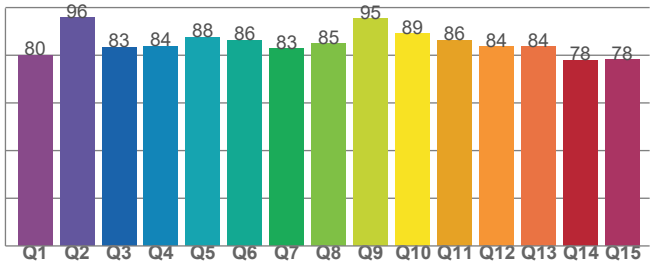

**TM30-18 Rf-values per hue bin**




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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84,8 | 84,4 | 78,9 | 87,5 | 90,9 | 88,9 | 86,5 | 92,7 | 92,8 | 89,6 | 85,4 | 85,7 | 87,8 | 82,7 | 85,9 | 80,3 |

**Color Quality Scale by reference color**




CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 79,9 | 95,7 | 83,4 | 83,7 | 87,5 | 86,3 | 82,8 | 84,9 | 95,3 | 89,1 | 86,4 | 83,6 | 83,6 | 77,8 | 78,1 |

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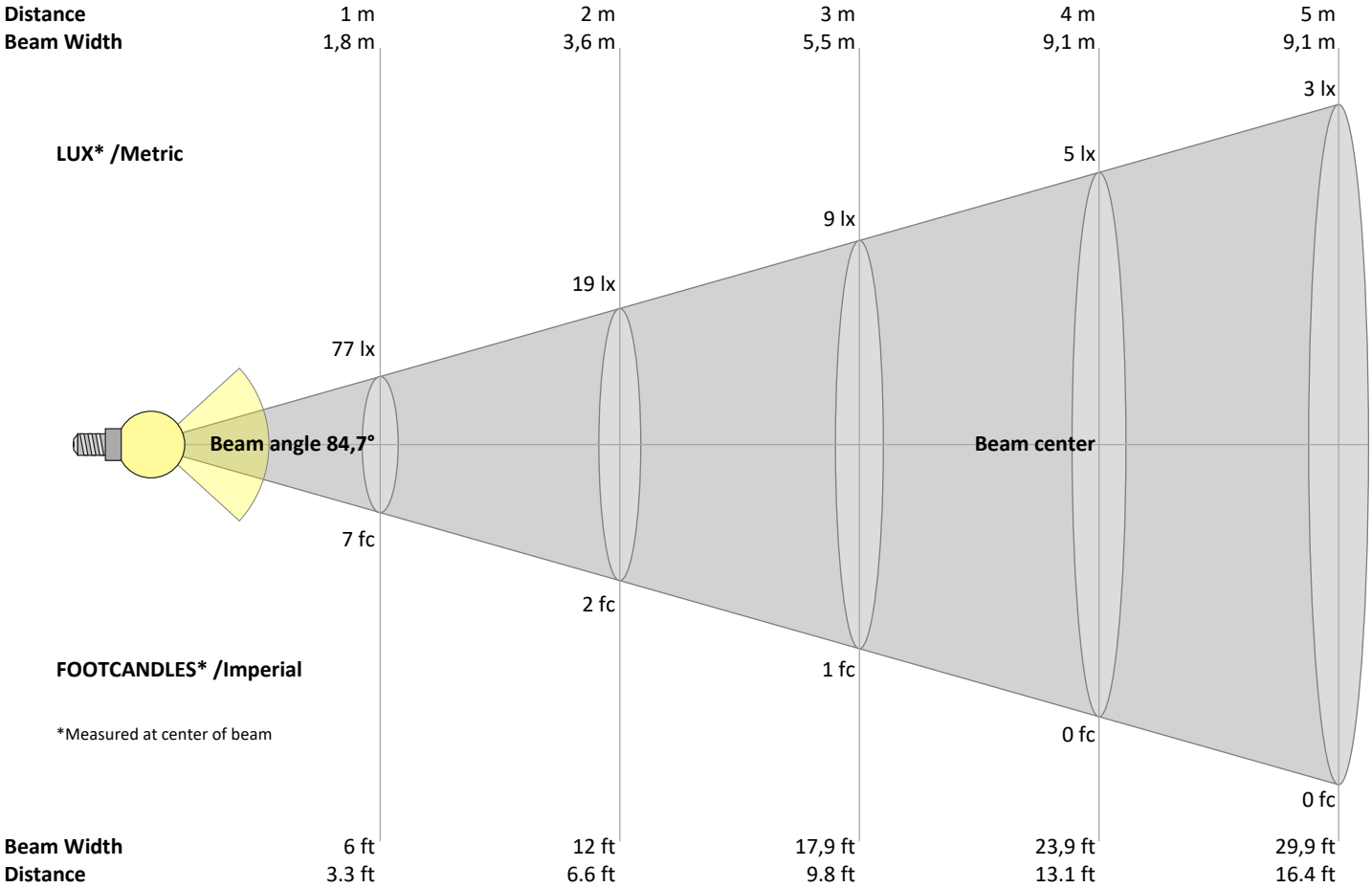
## Beam Details




### Beam intensities from 1 – 20 m

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3,3 | 6,6 | 9,8 | 13,1 | 16,4 | 19,7 | 23 | 26,2 | 29,5 | 32,8 | 36,1 | 39,4 | 42,7 | 45,9 | 49,2 | 52,5 | 55,8 | 59,1 | 62,3 | 65,6 | ft |
| 77 | 19 | 9 | 5 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | lux |
| 7,2 | 1,8 | 0,8 | 0,4 | 0,3 | 0,2 | 0,1 | 0,1 | 0,1 | 0,1 | 0,1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | fc |

### 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° | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 77,3 | 76,7 | 75,3 | 73,0 | 70,0 | 66,0 | 61,2 | 55,6 | 49,3 | 42,7 | 35,9 | 29,2 | 23,2 | 17,9 | 13,1 | 8,9 | 5,5 | 2,8 | 1,0 | 0,4 | cd |
| 100% | 99% | 97% | 94% | 90% | 85% | 79% | 72% | 64% | 55% | 46% | 38% | 30% | 23% | 17% | 12% | 7% | 4% | 1% | 1% | of 0°val |

### 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° | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 77,3 | 76,7 | 75,2 | 72,8 | 68,4 | 61,5 | 52,5 | 42,5 | 32,6 | 22,8 | 14,2 | 8,1 | 3,9 | 1,6 | 0,8 | 0,7 | 1,2 | 1,6 | 1,1 | 0,4 | cd |
| 100% | 99% | 97% | 94% | 88% | 79% | 68% | 55% | 42% | 30% | 18% | 10% | 5% | 2% | 1% | 1% | 2% | 2% | 1% | 0% | of 0°val |

### 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° | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 77,3 | 76,7 | 75,3 | 73,0 | 70,0 | 66,0 | 61,2 | 55,6 | 49,3 | 42,7 | 35,9 | 29,2 | 23,2 | 17,9 | 13,1 | 8,9 | 5,5 | 2,8 | 1,0 | 0,4 | cd |
| 100% | 99% | 97% | 94% | 90% | 85% | 79% | 72% | 64% | 55% | 46% | 38% | 30% | 23% | 17% | 12% | 7% | 4% | 1% | 1% | of 0°val |

### 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° | γ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 77,3 | 76,7 | 75,2 | 72,8 | 68,4 | 61,5 | 52,5 | 42,5 | 32,6 | 22,8 | 14,2 | 8,1 | 3,9 | 1,6 | 0,8 | 0,7 | 1,2 | 1,6 | 1,1 | 0,4 | cd |
| 100% | 99% | 97% | 94% | 88% | 79% | 68% | 55% | 42% | 30% | 18% | 10% | 5% | 2% | 1% | 1% | 2% | 2% | 1% | 0% | of 0°val |

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Operator:

## Light Planning – UGR table

*Uncorrected, comprehensive UGR table according to 117-1995*

| **Reflectances** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ρ Ceiling | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| ρ Walls | | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| ρ Floor | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **Room size** H = mounting height above eye level | | **Viewed Crosswise** (Viewing direction orthogonal to lamp length axis) | | | | | **Viewed Endwise** (Viewing direction parallel to lamp length axis) | | | | |
| **X** | **Y** | | | | | | | | | | |
| 2H | 2H | 26,6 | 27,6 | 26,9 | 28,0 | 28,2 | 22,5 | 23,5 | 22,7 | 23,8 | 24,1 |
| | 3H | 27,5 | 28,5 | 27,9 | 28,8 | 29,1 | 22,3 | 23,3 | 22,7 | 23,6 | 23,9 |
| | 4H | 27,8 | 28,8 | 28,2 | 29,1 | 29,4 | 22,2 | 23,2 | 22,6 | 23,5 | 23,8 |
| | 6H | 28,0 | 28,9 | 28,4 | 29,2 | 29,6 | 22,2 | 23,1 | 22,6 | 23,4 | 23,8 |
| | 8H | 28,0 | 28,9 | 28,4 | 29,2 | 29,7 | 22,2 | 23,1 | 22,6 | 23,4 | 23,9 |
| | 12H | 28,0 | 28,9 | 28,4 | 29,2 | 29,7 | 22,3 | 23,1 | 22,7 | 23,5 | 24,0 |
| 4H | 2H | 26,5 | 27,5 | 26,9 | 27,8 | 28,1 | 22,8 | 23,8 | 23,2 | 24,1 | 24,4 |
| | 3H | 27,6 | 28,4 | 28,0 | 28,8 | 29,3 | 22,7 | 23,5 | 23,1 | 23,9 | 24,4 |
| | 4H | 28,0 | 28,7 | 28,4 | 29,2 | 29,7 | 22,6 | 23,4 | 23,1 | 23,8 | 24,4 |
| | 6H | 28,2 | 29,0 | 28,8 | 29,4 | 29,8 | 22,6 | 23,3 | 23,1 | 23,7 | 24,1 |
| | 8H | 28,3 | 29,0 | 28,9 | 29,4 | 29,8 | 22,6 | 23,2 | 23,1 | 23,6 | 24,1 |
| | 12H | 28,4 | 28,9 | 28,9 | 29,4 | 29,9 | 22,7 | 23,2 | 23,2 | 23,7 | 24,2 |
| 8H | 4H | 27,9 | 28,5 | 28,4 | 29,0 | 29,4 | 22,7 | 23,4 | 23,3 | 23,8 | 24,2 |
| | 6H | 28,2 | 28,7 | 28,8 | 29,2 | 29,8 | 22,7 | 23,2 | 23,3 | 23,7 | 24,3 |
| | 8H | 28,4 | 28,8 | 29,0 | 29,4 | 30,0 | 22,8 | 23,2 | 23,4 | 23,8 | 24,4 |
| | 12H | 28,5 | 28,8 | 29,1 | 29,4 | 30,0 | 22,9 | 23,3 | 23,6 | 23,8 | 24,5 |
| 12H | 4H | 27,8 | 28,4 | 28,4 | 28,8 | 29,3 | 22,7 | 23,3 | 23,3 | 23,8 | 24,3 |
| | 6H | 28,2 | 28,6 | 28,8 | 29,2 | 29,9 | 22,8 | 23,2 | 23,4 | 23,8 | 24,4 |
| | 8H | 28,4 | 28,7 | 29,0 | 29,3 | 29,9 | 22,8 | 23,2 | 23,5 | 23,7 | 24,4 |

| **Variations with the observer position for the luminaire spacings, S:** | | |
|---|---|---|
| S = 1.0H | 0,2 / -0,3 | 1,0 / -2,0 |
| S = 1.5H | 0,7 / -0,8 | 2,3 / -4,1 |
| S = 2.0H | 1,6 / -1,6 | 3,6 / -5,6 |

## 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 Lumen delivered to the task surface | | | | | | | | | | | | | | |
| 0 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 110 | 110 | 110 | 104 | 104 | 104 | 100 | 100 | 100 | 97 |
| 1 | 110 | 106 | 103 | 99 | 107 | 104 | 100 | 97 | 99 | 96 | 94 | 95 | 93 | 91 | 91 | 89 | 88 | 85 |
| 2 | 102 | 95 | 89 | 84 | 99 | 93 | 88 | 83 | 89 | 85 | 81 | 85 | 82 | 79 | 82 | 79 | 77 | 75 |
| 3 | 94 | 85 | 78 | 73 | 92 | 84 | 77 | 72 | 80 | 75 | 70 | 77 | 73 | 69 | 75 | 71 | 67 | 65 |
| 4 | 87 | 77 | 69 | 64 | 85 | 76 | 68 | 63 | 73 | 67 | 62 | 70 | 65 | 61 | 68 | 63 | 60 | 58 |
| 5 | 81 | 70 | 62 | 56 | 79 | 69 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 54 | 62 | 57 | 53 | 51 |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 55 | 50 | 61 | 54 | 49 | 59 | 53 | 49 | 57 | 52 | 48 | 46 |
| 7 | 70 | 58 | 51 | 45 | 69 | 57 | 50 | 45 | 56 | 49 | 44 | 54 | 48 | 44 | 53 | 47 | 43 | 42 |
| 8 | 66 | 54 | 46 | 41 | 64 | 53 | 46 | 41 | 52 | 45 | 40 | 50 | 44 | 40 | 49 | 43 | 39 | 38 |
| 9 | 62 | 50 | 42 | 37 | 60 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 36 | 45 | 40 | 36 | 34 |
| 10 | 58 | 46 | 39 | 34 | 57 | 46 | 39 | 34 | 44 | 38 | 34 | 43 | 38 | 33 | 42 | 37 | 33 | 32 |

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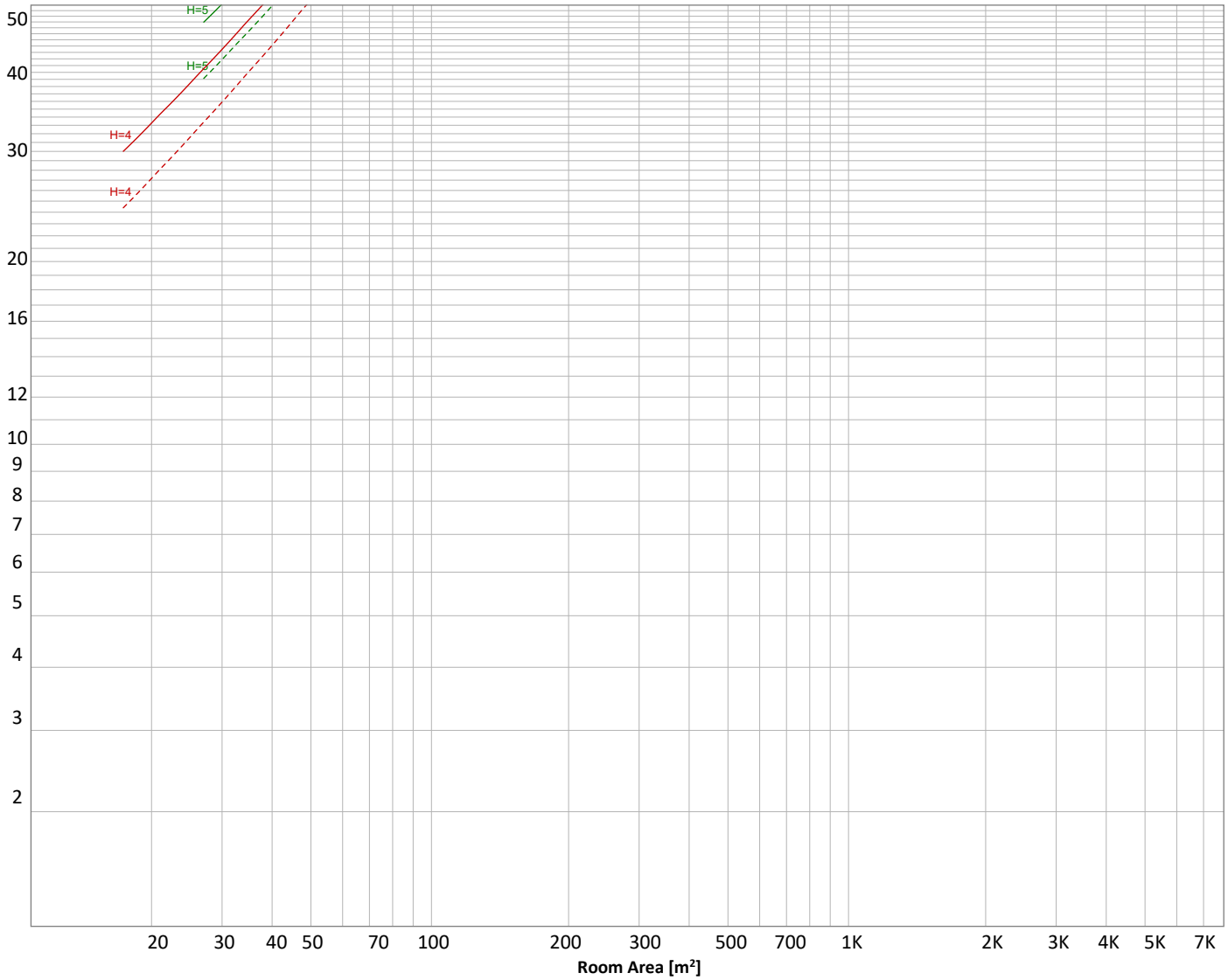
## Luminaire budgetary diagram

*Uncorrected, comprehensive UGR table according to 117-1995*

**LAMPS (number of lamps)**




**Conditions**

| | | | | | |
|---|---|---|---|---|---|
| H = Room height | Flux = 149 lm | | ρ(%) | | |
| $H_{down}$ = Lamp distance from ceiling = | 0.00 m | Line type | Ceiling reflectance | Wall reflectance | Floor reflectance |
| $H_{work}$ = Work area height from floor = | 0.00 m | ---------- | 70 | 50 | 30 |
| $E_{work}$ = Average lux on work area = | 100 lx | ———— | 50 | 30 | 20 |

## Zonal Lumen Summary

| 0°-10° | 10°-20° | 20°-30° | 30°-40° | 40°-50° | 50°-60° | 60°-70° | 70°-80° | 80°-90° |
|---|---|---|---|---|---|---|---|---|
| 7,29 lm | 20,5 lm | 29,5 lm | 31,1 lm | 25,6 lm | 16,4 lm | 8,75 lm | 4,27 lm | 1,85 lm |

| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
|---|---|---|---|---|---|---|---|---|
| 0,526 lm | 0,910 lm | 1,03 lm | 0,637 lm | 0,196 lm | 0,050 lm | 0,057 lm | 0,279 lm | 0,213 lm |

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## Outdoor Light Planning

### Lumen per Zone

| Zone (γ) | Lumen | % Total |
|---|---|---|
| 0-10° | 7 lm | 4,9% |
| 10-20° | 21 lm | 13,8% |
| 20-30° | 29 lm | 19,7% |
| 30-40° | 31 lm | 20,9% |
| 40-50° | 26 lm | 17,2% |
| 50-60° | 16 lm | 11,0% |
| 60-70° | 9 lm | 5,9% |
| 70-80° | 4 lm | 2,9% |
| 80-90° | 2 lm | 1,2% |
| 90-100° | 1 lm | 0,4% |
| 100-110° | 1 lm | 0,6% |
| 110-120° | 1 lm | 0,7% |
| 120-130° | 1 lm | 0,4% |
| 130-140° | 0 lm | 0,1% |
| 140-150° | 0 lm | 0,0% |
| 150-160° | 0 lm | 0,0% |
| 160-170° | 0 lm | 0,2% |
| 170-180° | 0 lm | 0,1% |
| Total | 149 lm | 100,0% |

### Intensity peaks

| | |
|---|---|
| Max intensity | 77 cd |
| Intensity, 90° | 1 cd |
| Intensity, 0° | 77 cd |

### Zonal Lumen summary

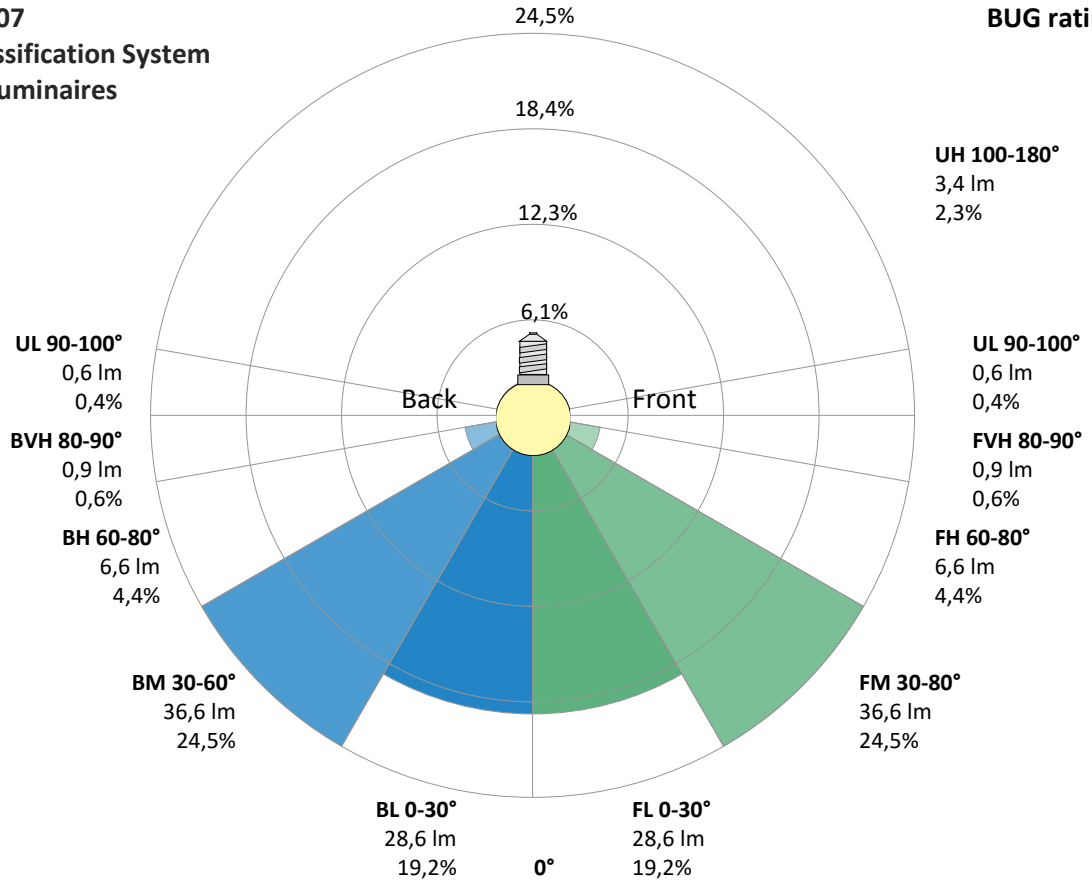
| Zone (γ) | Lumen | % Total |
|---|---|---|
| 0-30° | 57 lm | 38,4% |
| 0-40° | 88 lm | 59,3% |
| 0-60° | 130 lm | 87,4% |
| 60-90° | 15 lm | 10,0% |
| 70-100° | 7 lm | 4,5% |
| 90-120° | 2 lm | 1,7% |
| 0-90° | 145 lm | 97,4% |
| 90-180° | 4 lm | 2,6% |
| 0-180° | 149 lm | 100,0% |

### BUG rating

| | Lumen | % Total |
|---|---|---|
| **Forward light** | | |
| Low(0-30°) | 29 lm | 19,2% |
| Medium(30-60°) | 37 lm | 24,5% |
| High(60-80°) | 7 lm | 4,4% |
| Very high(80-90°) | 1 lm | 0,6% |
| **Back light** | | |
| Low(0-30°) | 29 lm | 19,2% |
| Medium(30-60°) | 37 lm | 24,5% |
| High(60-80°) | 7 lm | 4,4% |
| Very high(80-90°) | 1 lm | 0,6% |
| **Uplight** | | |
| Low(90-100°) | 1 lm | 0,4% |
| High(100-180°) | 3 lm | 2,3% |

## IESNA TM-15-07
## Luminaire Classification System
## For Outdoor Luminaires

**BUG rating B0 U1 G0**



# Light Measurement Report

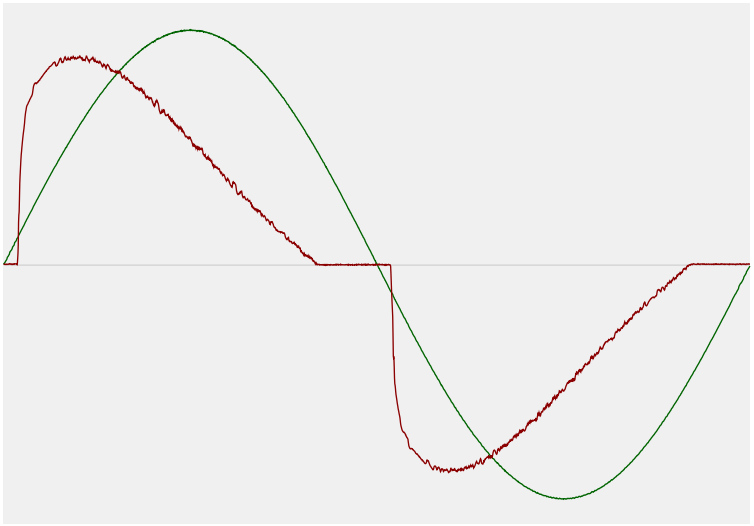
Print date: 9-10-2025
Measurement date and time: 9-10-2025 10:47:15 – Measurement no. VFR-251009-3617-MS
Measurement tracking No. and Link: VT251009-004279
Operator:

## Power Details

### Input Power

| | |
|---|---|
| Power feed to light source | 5,7 W |
| Frequency of input power | 50 Hz |
| RMS Input voltage feed, $V_{RMS}$ | 230 V |
| RMS Input current feed, $I_{RMS}$ | 0,030 A |
| Volt-Ampere or apparent power = $V_{RMS}$*$I_{RMS}$ | 7,0 VA |
| Displacement factor of AC power feed | 0,85 |
| Power factor of AC current feed | 0,81 |
| Total harmonic distortion of the current | 32,41% |
| Total harmonic distortion of the voltage | 0,07% |

### Input Power Curve



### Efficiency

Radiated power efficiency 8,5%

Lumen efficiency 26 lm/W

## Stabilization Details

### Warmup Conditions

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

### Color Temperature Change

| | |
|---|---|
| CCT start | 2797 K |
| CCT shift | +3 K |
| CCT end | 2800 K |

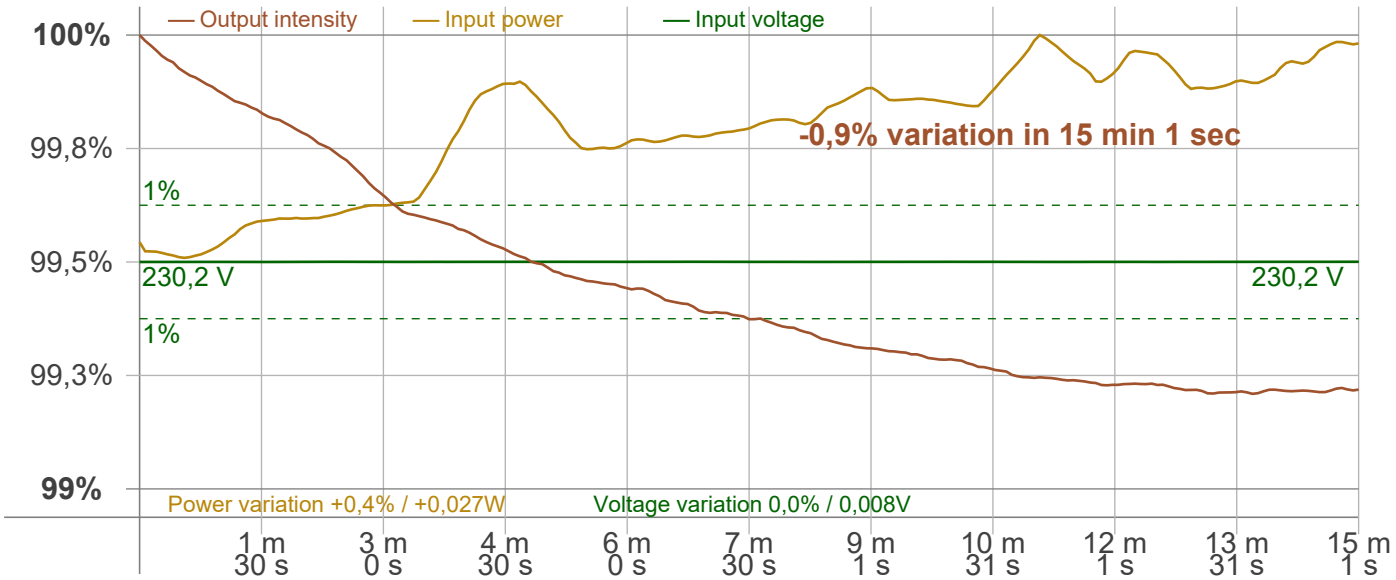
### Warmup Result

| | |
|---|---|
| Total warmup time | Lamp stabilized in 15 min 1 sec |
| Warmup variation | -0,9% |

### Output Change

| | |
|---|---|
| Output start | 150 lm |
| Output change | -1 lm |
| Output end | 149 lm |

### Stabilization Curve



# Light Measurement Report

Print date: 9-10-2025
Measurement date and time: 9-10-2025 10:47:15 – Measurement no. VFR-251009-3617-MS
Measurement tracking No. and Link: VT251009-004279
Operator:

## Flicker /TLA details

| | |
|---|---|
| Flicker Meter Type | Viso Systems LabFlicker |
| Frequency of input power | 50 Hz |
| Flicker/TLA sample rate | 40000 samples/s |

**Measurement time**

| | |
|---|---|
| PstLM | 180 sec |
| All other indices | 1,2 sec |

**Flicker indices according to Illuminating Engineering Society (IES)**

| | |
|---|---|
| Flicker frequency | 98,77 Hz |
| Percent Flicker | 0,21 % |
| Flicker index | 0 |

**Flicker indices according to California Energy Commission (CEC) 2016b**

| | |
|---|---|
| JA8/10 40 Hz | n/a % |
| JA8/10 90 Hz | n/a % |
| JA8/10 200 Hz | n/a % |
| JA8/10 400 Hz | n/a % |
| JA8/10 1000 Hz | n/a % |

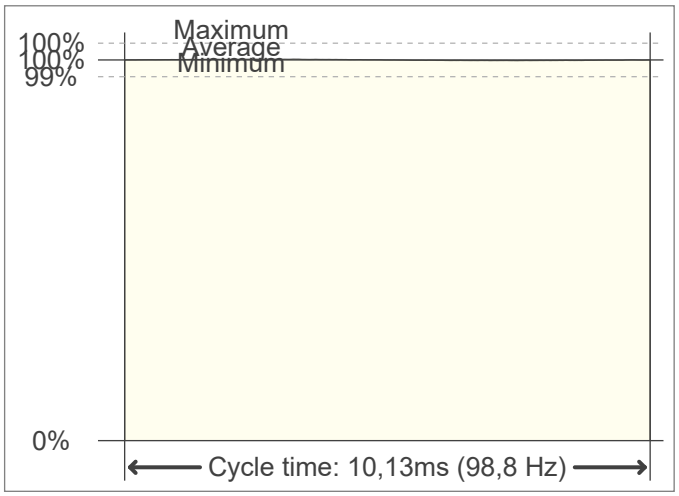
**TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC 61000-4-15)**

| | |
|---|---|
| PstLM value (F < 80 Hz) | 0,01 |
| SVM value (80 < F < 2000 Hz) | 0,01 |

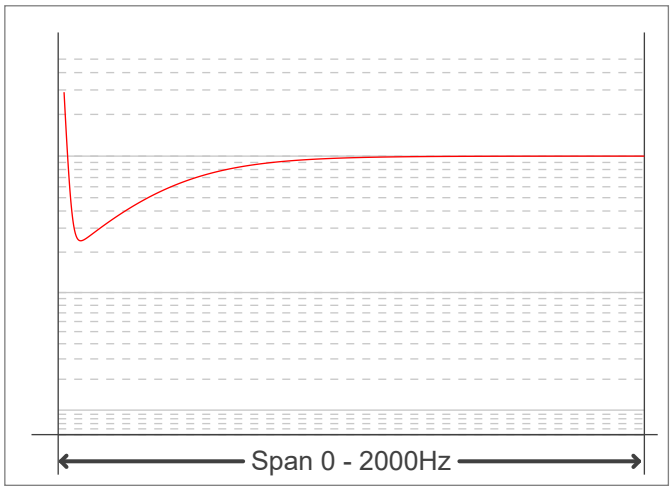
**Flicker indices according to Lighting Research Center (2015)**

| | |
|---|---|
| Perception metric, Assist Mp | n/a |

**Flicker frame (frame of one flicker period in time domain)**




**Flicker FFT (flicker curve in frequency domain)**




**IEEE 1789 Frequency/modulation plot**