

# Light Measurement Report

Print date: 16-2-2026

Measurement date and time: 13-2-2026 17:30:08 – Measurement no. VFR-260213-4250-MS

Measurement tracking No. and Link: [VT260213-009527](https://www.viso-systems.com/VT260213-009527)

Operator:



## Laboratory and Equipment

Laboratory Owner and Location  
Goniospectrometer System and Type  
Sensor Name, Calibr. Date and Serial No.  
Spectrometer Manufacturer and Model

Viso Systems, Copenhagen V, Denmark  
LabSpion – Type C, horizontal  
LabSensor Model2 – 11-1-2024 – 3130191315  
Ibsen Photonics, Denmark – Freedom VIS (Custom Viso)

## Measurement Conditions

Number of C-planes and Resolution  
 $\gamma$  (gamma)-Resolution  
Test Distance  
Input Power, Power and Displ. Factors  
Input RMS Voltage and Current  
Frequency of Input Power  
Warm-up Time and Variation

12 planes – 30°  
5°  
1,99 m  
14,6 W – PF 0,92 – DPF 0,95  
230 V – 0,069 A  
50 Hz  
Lamp stabilized in 15 min 3 sec – 2,0%

## Tested Light Source

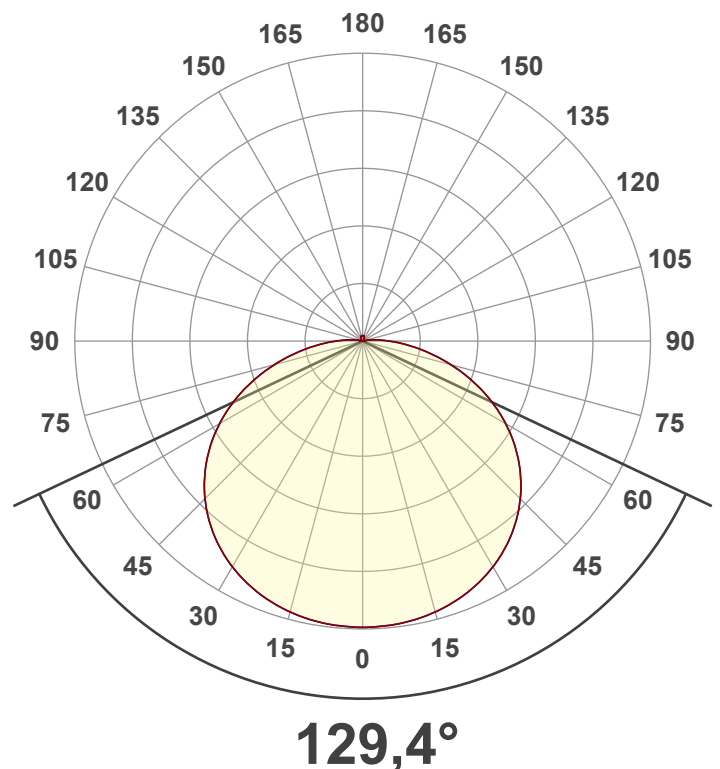
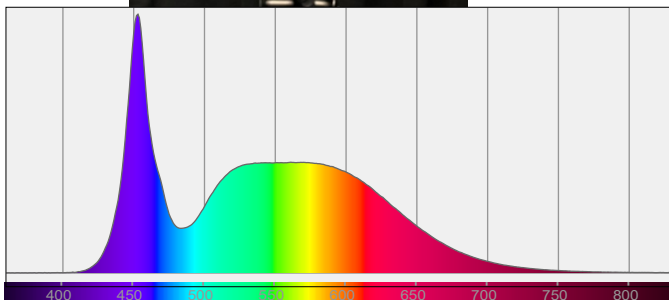
Product Name  
Item No. and Manufacturer  
Product Description (line 1)

816162 16W - 6000K  
816162 16W - 6000K – Dutchfulfillment

## Main Light Measurement Results

Output – Total Lumen (Up% / Down%)  
Efficiency  
Peak Intensity and Beam Angle  
Correlated Color Temperature, Target/Measured  
Color Rendering Index  
Color Rendering TM30-18  
Color Shift, CIE duv and MacAdam Steps  
Flicker

1618 lm – 2,43% / 97,57%  
110 lm/W  
446 cd – 129,4°  
CCT = 6109 K / 6109 K  
CRI 83,1  
 $R_f$  82,2 –  $R_g$  95,3  
Duv 0,0024 – SDCM n/a  
SVM n/a – PstLM n/a



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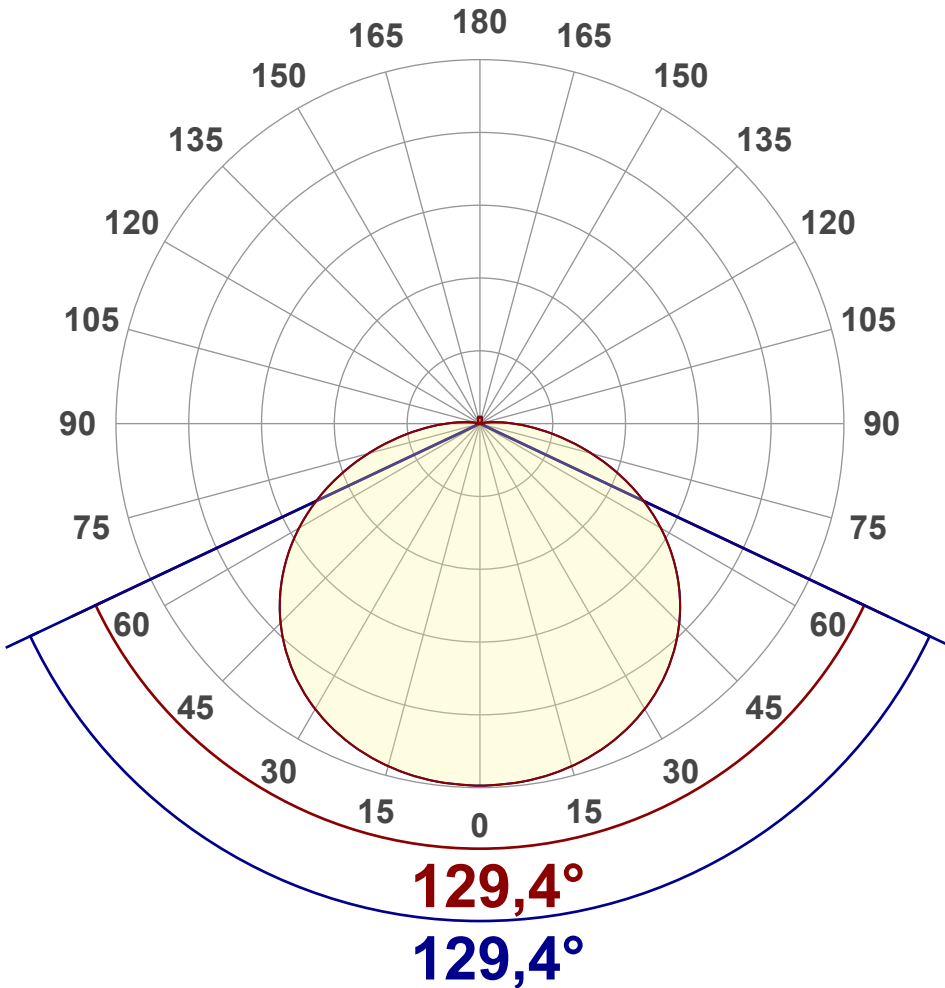
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## Luminous Intensity diagram

Unit: 0-100% of peak intensity



## Main Values

|                      |                |
|----------------------|----------------|
| Output (total Lumen) | 1618 lm        |
| Lumen Up% / Down%    | 2,43% / 97,57% |
| Peak Intensity       | 446 cd         |
| Beam Angle (50%)     | 129,4°         |
| Beam Angle (90%)     | 129,4°         |
| Beam Angle (10%)     | 129,4°         |

## Cut-off Angle

|              |      |
|--------------|------|
| Average 2,5% | 197° |
|--------------|------|

## Field Angle

|             |        |
|-------------|--------|
| Average 10% | 179,2° |
|-------------|--------|

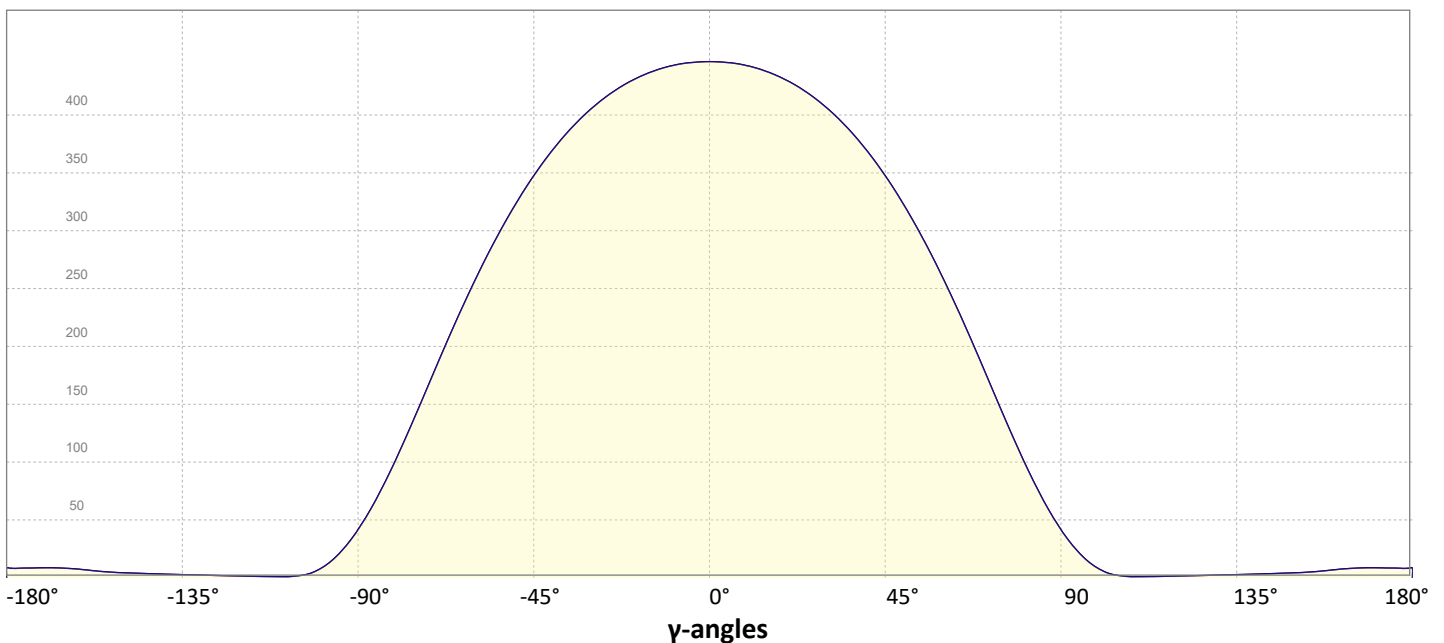
## Intensity Ratio

|              |       |
|--------------|-------|
| In 120° cone | 69,9% |
| In 90° cone  | 45,5% |

**C000-C180**

**C090-C270**

## Linear distribution diagram - Intensity (candela) vs $\gamma$ -angle



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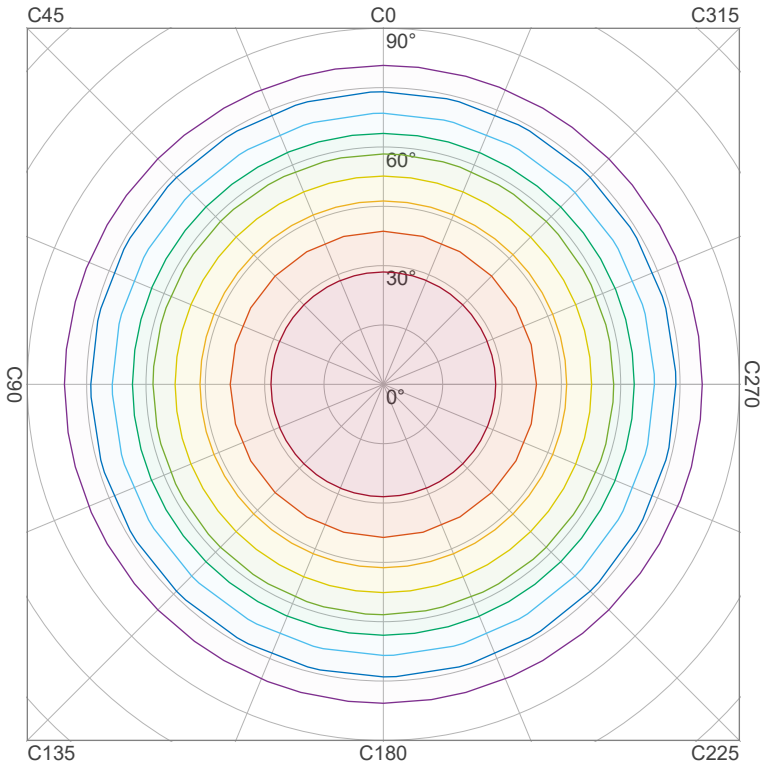
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## Iso-intensity Diagram (Iso-candela)

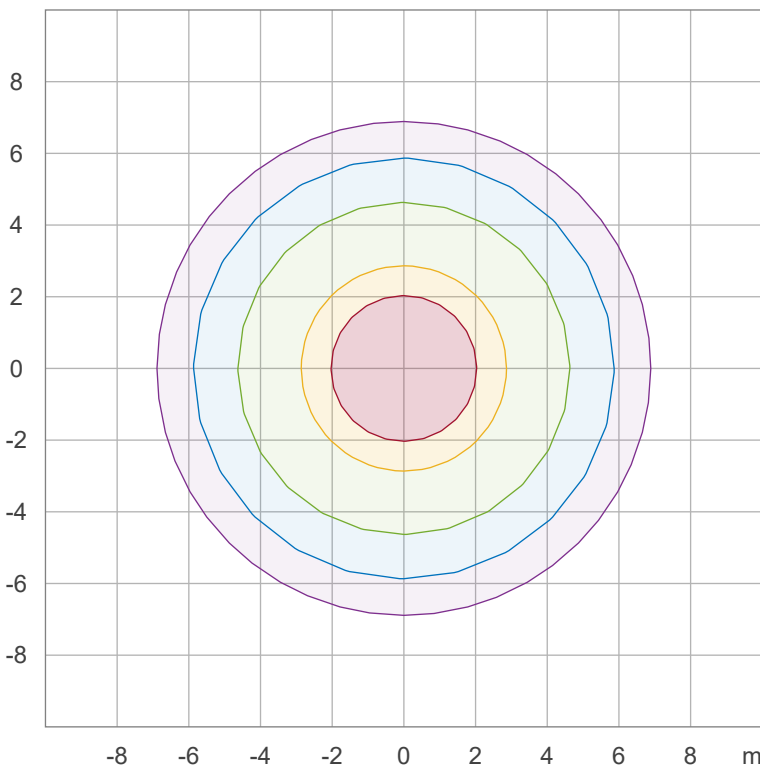


|      |          |
|------|----------|
| 90 % | 401,4 cd |
| 80 % | 356,8 cd |
| 70 % | 312,2 cd |
| 60 % | 267,6 cd |
| 50 % | 223,0 cd |
| 40 % | 178,4 cd |
| 30 % | 133,8 cd |
| 20 % | 89,2 cd  |
| 10 % | 44,6 cd  |

Peak intensity: 446,0 cd

Number of c-planes: 12

## Iso-illuminance Diagram (Iso-lux)



|        |         |
|--------|---------|
| 50,0 % | 24,8 lx |
| 30,0 % | 14,9 lx |
| 10,0 % | 5,0 lx  |
| 5,0 %  | 2,5 lx  |
| 3,0 %  | 1,5 lx  |

Peak illuminance: 49,6 lx

Mounting height: 3,0 m

Number of c-planes: 12

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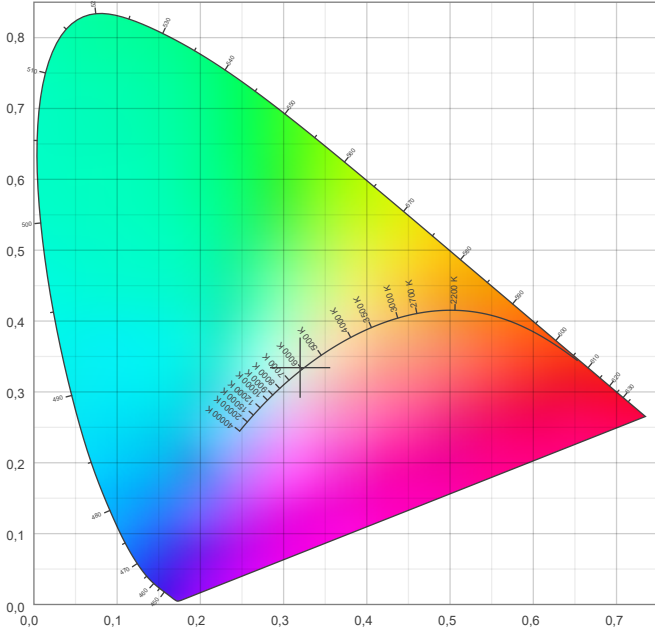


## Color details

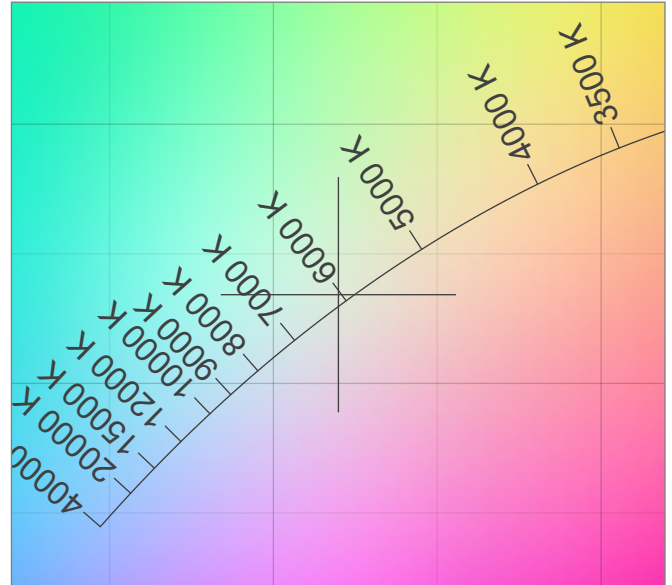
Correlated Color Temperature, Target CCT = 6109 K  
 Correlated Color Temperature, Measured CCT = 6109 K  
 Color Rendering Index CRI 83,1  
 Color Rendering Index, R9 (red component) R9 = 12,5  
 Color Rendering TM30-18 R<sub>f</sub> 82,2 – R<sub>g</sub> 95,3  
 Color Quality Scale CQS = 79,9

MacAdam Steps  
 Color coordinates CIE 1931 (x;y) = (0,320;0,334)  
 Color coordinate CIEs 1960 (u;v) = (0,201;0,315)  
 Color deviation from BBL Duv = 0,0024  
 Color coordinate CIEs 1976 (CIELUV) (u';v') = (0,201;0,472)

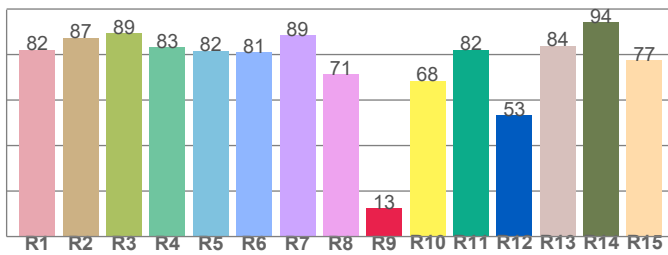
### CIE 1931



### CIE 1931 – zoomed on Planckian locus



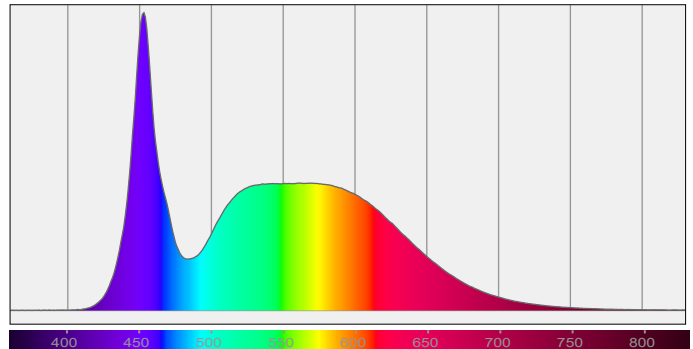
### Color Rendering Index per reference color (CIE 1995)



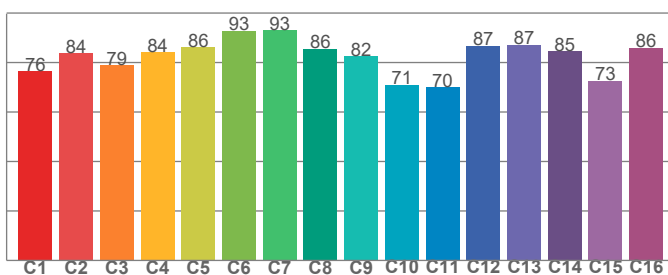
CRI R values, only R1-R8 are used to calculate final CRI value

| R1   | R2   | R3   | R4   | R5   | R6   | R7   | R8   | R9   | R10  | R11  | R12  | R13  | R14  | R15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 82,1 | 87,4 | 89,3 | 83,3 | 81,7 | 81,0 | 88,5 | 71,3 | 12,5 | 68,4 | 82,2 | 53,2 | 83,9 | 94,2 | 77,5 |

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



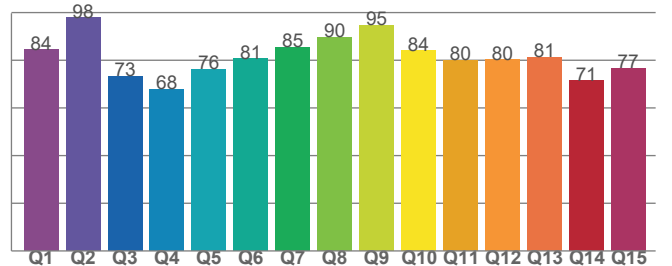
### TM30-18 R<sub>f</sub>-values per hue bin



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  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 76,5 | 83,8 | 78,9 | 84,0 | 86,1 | 92,8 | 93,0 | 85,5 | 82,4 | 71,0 | 70,0 | 86,8 | 87,2 | 84,7 | 72,7 | 85,9 |

### Color Quality Scale by reference color



CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 84,3 | 97,8 | 73,4 | 67,9 | 76,2 | 80,6 | 85,5 | 89,7 | 94,8 | 84,0 | 80,1 | 80,2 | 81,2 | 71,5 | 76,6 |

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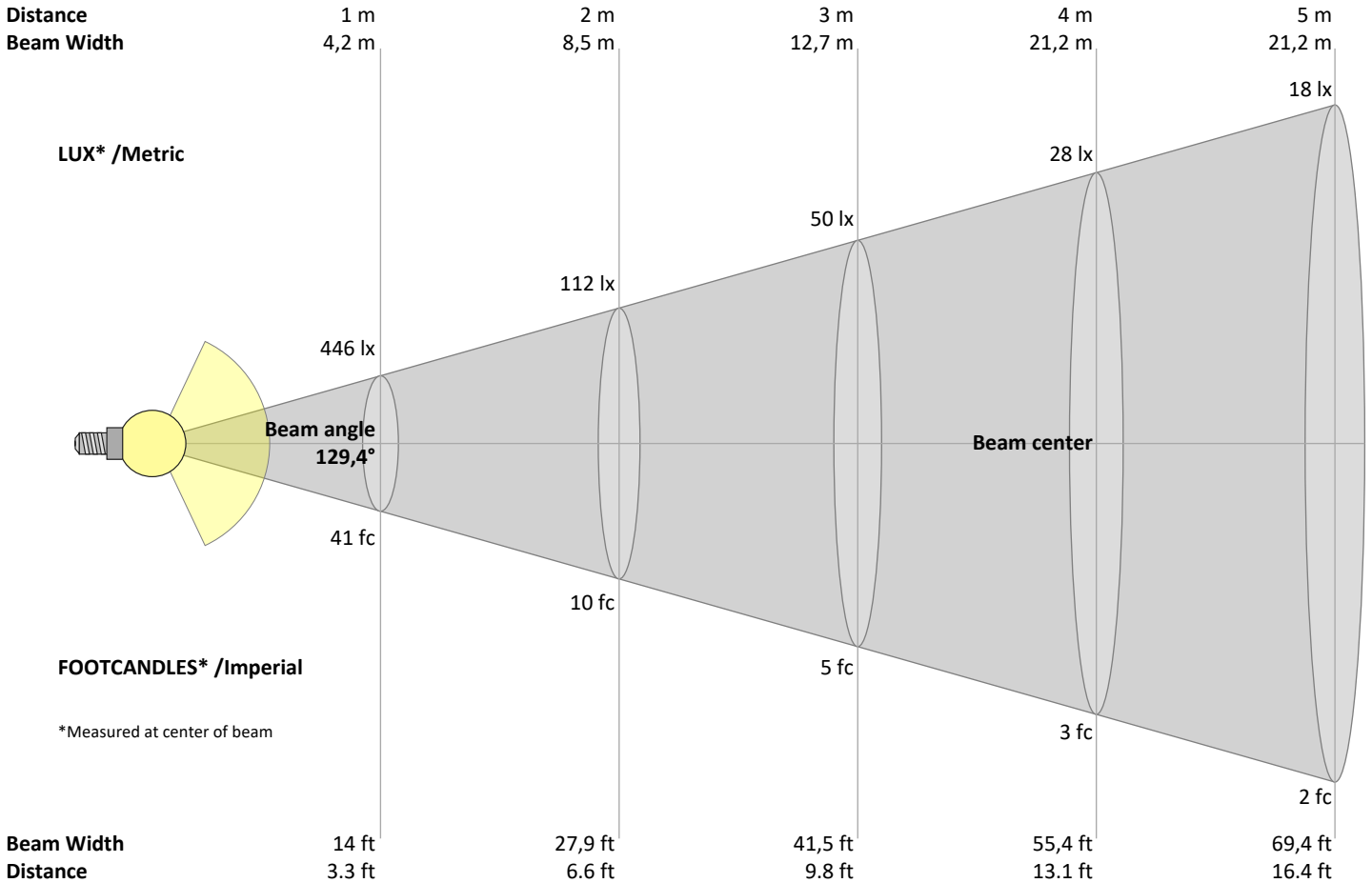
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## Beam Details



### 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  |
| 446  | 112  | 50  | 28   | 18   | 12   | 9   | 7    | 6    | 4    | 4    | 3    | 3    | 2    | 2    | 2    | 2    | 1    | 1    | 1    | lux |
| 41,4 | 10,4 | 4,6 | 2,6  | 1,7  | 1,2  | 0,8 | 0,6  | 0,5  | 0,4  | 0,3  | 0,3  | 0,2  | 0,2  | 0,2  | 0,2  | 0,1  | 0,1  | 0,1  | 0,1  | 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        |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| 446  | 445  | 442 | 437 | 429 | 419 | 406 | 390 | 370 | 347 | 321 | 291 | 257 | 221 | 182 | 143 | 105 | 71  | 42  | 21  | cd       |
| 100% | 100% | 99% | 98% | 96% | 94% | 91% | 87% | 83% | 78% | 72% | 65% | 58% | 50% | 41% | 32% | 24% | 16% | 10% | 5%  | 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        |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| 446  | 445  | 442 | 437 | 429 | 419 | 406 | 390 | 370 | 347 | 321 | 291 | 257 | 221 | 182 | 143 | 105 | 71  | 42  | 21  | cd       |
| 100% | 100% | 99% | 98% | 96% | 94% | 91% | 87% | 83% | 78% | 72% | 65% | 58% | 50% | 41% | 32% | 24% | 16% | 10% | 5%  | 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        |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| 446  | 445  | 442 | 437 | 429 | 419 | 406 | 390 | 370 | 347 | 321 | 291 | 257 | 221 | 182 | 143 | 105 | 71  | 42  | 21  | cd       |
| 100% | 100% | 99% | 98% | 96% | 94% | 91% | 87% | 83% | 78% | 72% | 65% | 58% | 50% | 41% | 32% | 24% | 16% | 10% | 5%  | 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        |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| 446  | 445  | 442 | 437 | 429 | 419 | 406 | 390 | 370 | 347 | 321 | 291 | 257 | 221 | 182 | 143 | 105 | 71  | 42  | 21  | cd       |
| 100% | 100% | 99% | 98% | 96% | 94% | 91% | 87% | 83% | 78% | 72% | 65% | 58% | 50% | 41% | 32% | 24% | 16% | 10% | 5%  | of 0°val |

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## Light Planning – UGR table

Uncorrected, comprehensive UGR table according to 117-1995

| Reflectances                        |           | 70   | 70   | 50   | 50   | 30   | 70   | 70   | 50   | 50   | 30   |
|-------------------------------------|-----------|--|------|------|------|------|--|------|------|------|------|
|                                     | 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                           |           | Viewed Crosswise                                   |      |      |      |      | Viewed Endwise                                   |      |      |      |      |
| H = mounting height above eye level |           | (Viewing direction orthogonal to lamp length axis) |      |      |      |      | (Viewing direction parallel to lamp length axis) |      |      |      |      |
| X                                   | Y         |  |      |      |      |      |  |      |      |      |      |
| 2H                                  | 2H        | 20,4   | 21,7 | 20,7 | 22,1 | 22,3 | 20,4   | 21,7 | 20,7 | 22,1 | 22,3 |
|                                     | 3H        | 22,3   | 23,6 | 22,7 | 23,9 | 24,2 | 22,3   | 23,6 | 22,7 | 23,9 | 24,2 |
|                                     | 4H        | 23,2   | 24,5 | 23,6 | 24,8 | 25,1 | 23,2   | 24,5 | 23,6 | 24,8 | 25,1 |
|                                     | 6H        | 24,1   | 25,2 | 24,5 | 25,6 | 26,0 | 24,1   | 25,2 | 24,5 | 25,6 | 26,0 |
|                                     | 8H        | 24,5   | 25,6 | 24,9 | 25,9 | 26,4 | 24,5   | 25,6 | 24,9 | 25,9 | 26,4 |
|                                     | 12H       | 24,9   | 26,0 | 25,3 | 26,3 | 26,8 | 24,9   | 26,0 | 25,3 | 26,3 | 26,8 |
| 4H                                  | 2H        | 21,1   | 22,4 | 21,6 | 22,7 | 23,0 | 21,1   | 22,4 | 21,6 | 22,7 | 23,0 |
|                                     | 3H        | 23,3   | 24,4 | 23,7 | 24,8 | 25,3 | 23,3   | 24,4 | 23,7 | 24,8 | 25,3 |
|                                     | 4H        | 24,3   | 25,3 | 24,8 | 25,8 | 26,4 | 24,3   | 25,3 | 24,8 | 25,8 | 26,4 |
|                                     | 6H        | 25,3   | 26,3 | 25,9 | 26,7 | 27,1 | 25,3   | 26,3 | 25,9 | 26,7 | 27,1 |
|                                     | 8H        | 25,8   | 26,7 | 26,3 | 27,1 | 27,5 | 25,8   | 26,7 | 26,3 | 27,1 | 27,5 |
|                                     | 12H       | 26,3   | 27,0 | 26,8 | 27,5 | 28,0 | 26,3   | 27,0 | 26,8 | 27,5 | 28,0 |
| 8H                                  | 4H        | 24,8   | 25,6 | 25,3 | 26,0 | 26,5 | 24,8   | 25,6 | 25,3 | 26,0 | 26,5 |
|                                     | 6H        | 26,0   | 26,7 | 26,5 | 27,2 | 27,8 | 26,0   | 26,7 | 26,5 | 27,2 | 27,8 |
|                                     | 8H        | 26,6   | 27,2 | 27,2 | 27,8 | 28,5 | 26,6   | 27,2 | 27,2 | 27,8 | 28,5 |
|                                     | 12H       | 27,3   | 27,8 | 27,9 | 28,3 | 29,0 | 27,3   | 27,8 | 27,9 | 28,3 | 29,0 |
| 12H                                 | 4H        | 24,8   | 25,5 | 25,3 | 26,0 | 26,5 | 24,8   | 25,5 | 25,3 | 26,0 | 26,5 |
|                                     | 6H        | 26,2   | 26,8 | 26,7 | 27,3 | 28,0 | 26,2   | 26,8 | 26,7 | 27,3 | 28,0 |
|                                     | 8H        | 26,9   | 27,4 | 27,5 | 27,9 | 28,6 | 26,9   | 27,4 | 27,5 | 27,9 | 28,6 |

### Variations with the observer position for the luminaire spacings, S:

|          |            |            |
|----------|------------|------------|
| S = 1.0H | 0,1 / -0,1 | 0,1 / -0,1 |
| S = 1.5H | 0,1 / -0,1 | 0,1 / -0,1 |
| S = 2.0H | 0,2 / -0,2 | 0,2 / -0,2 |

## 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 | 105 | 105 | 105 | 100 | 100 | 100 | 98 |    |
| 1                   | 106  | 101 | 96  | 91  | 103 | 98  | 94  | 90  | 93  | 90  | 86  | 89  | 86  | 83  | 85  | 83  | 80 | 78 |
| 2                   | 96   | 87  | 79  | 73  | 93  | 84  | 77  | 72  | 80  | 75  | 69  | 77  | 72  | 67  | 73  | 69  | 66 | 63 |
| 3                   | 87   | 75  | 66  | 59  | 84  | 73  | 65  | 59  | 70  | 63  | 57  | 67  | 61  | 56  | 64  | 59  | 55 | 52 |
| 4                   | 79   | 66  | 57  | 50  | 76  | 65  | 56  | 49  | 62  | 54  | 48  | 59  | 52  | 47  | 57  | 51  | 46 | 44 |
| 5                   | 72   | 59  | 49  | 42  | 70  | 57  | 49  | 42  | 55  | 47  | 41  | 53  | 46  | 40  | 51  | 45  | 40 | 37 |
| 6                   | 67   | 53  | 43  | 36  | 65  | 52  | 43  | 36  | 49  | 42  | 36  | 47  | 40  | 35  | 46  | 39  | 35 | 32 |
| 7                   | 62   | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 31  | 43  | 36  | 31  | 42  | 35  | 30 | 28 |
| 8                   | 57   | 43  | 34  | 28  | 56  | 42  | 34  | 28  | 41  | 33  | 28  | 39  | 32  | 27  | 38  | 32  | 27 | 25 |
| 9                   | 54   | 40  | 31  | 25  | 52  | 39  | 31  | 25  | 38  | 30  | 25  | 36  | 29  | 25  | 35  | 29  | 24 | 22 |
| 10                  | 50   | 36  | 28  | 23  | 49  | 36  | 28  | 23  | 35  | 27  | 22  | 34  | 27  | 22  | 32  | 26  | 22 | 20 |

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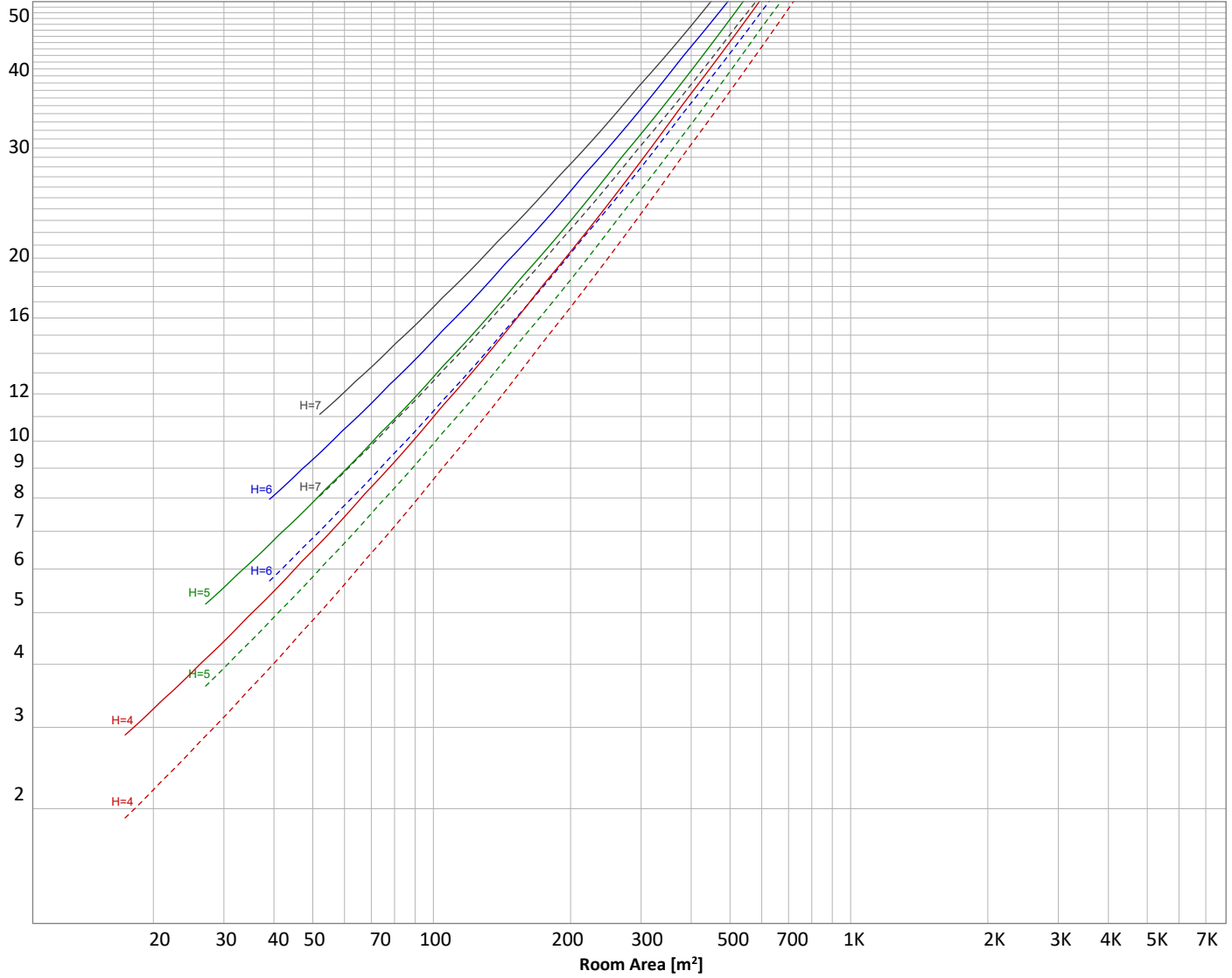
Operator:



## Luminaire budgetary diagram

Uncorrected, comprehensive UGR table according to 117-1995

LAMPS (number of lamps)



### Conditions

|   |                |           |                     |                          |                   |
|---|----------------|-----------|---------------------|--------------------------|-------------------|
| H = Room height                                   | Flux = 1618 lm |           |                     |                          |                   |
| H <sub>down</sub> = Lamp distance from ceiling =  | 0.00 m         | Line type | Ceiling reflectance | ρ(%)<br>Wall reflectance | Floor reflectance |
| H <sub>work</sub> = Work area height from floor = | 0.00 m         | -----     | 70                  | 50                       | 30                |
| E <sub>work</sub> = 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°   |
| 42,4 lm  | 124 lm    | 194 lm    | 244 lm    | 268 lm    | 260 lm    | 219 lm    | 151 lm    | 77,7 lm   |
| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 23,9 lm  | 2,72 lm   | 1,16 lm   | 1,67 lm   | 2,11 lm   | 2,32 lm   | 2,45 lm   | 2,26 lm   | 0,803 lm  |

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## Outdoor Light Planning

### Lumen per Zone

| Zone (γ) | Lumen           | % Total |
|----------|-----------------|---------|
| 0-10°    | {LUM00-10} lm   | #VALUE! |
| 10-20°   | {LUM10-20} lm   | #VALUE! |
| 20-30°   | {LUM20-30} lm   | #VALUE! |
| 30-40°   | {LUM30-40} lm   | #VALUE! |
| 40-50°   | {LUM40-50} lm   | #VALUE! |
| 50-60°   | {LUM50-60} lm   | #VALUE! |
| 60-70°   | {LUM60-70} lm   | #VALUE! |
| 70-80°   | {LUM70-80} lm   | #VALUE! |
| 80-90°   | {LUM80-90} lm   | #VALUE! |
| 90-100°  | {LUM90-100} lm  | #VALUE! |
| 100-110° | {LUM100-110} lm | #VALUE! |
| 110-120° | {LUM110-120} lm | #VALUE! |
| 120-130° | {LUM120-130} lm | #VALUE! |
| 130-140° | {LUM130-140} lm | #VALUE! |
| 140-150° | {LUM140-150} lm | #VALUE! |
| 150-160° | {LUM150-160} lm | #VALUE! |
| 160-170° | {LUM160-170} lm | #VALUE! |
| 170-180° | {LUM170-180} lm | #VALUE! |
| Total    | 0 lm            | #VALUE! |

### Intensity peaks

|                |            |
|----------------|------------|
| Max intensity  | {PEAK} cd  |
| Intensity, 90° | {INT90} cd |
| Intensity, 0°  | {INT0} cd  |

### Zonal Lumen summary

| Zone (γ) | Lumen          | % Total |
|----------|----------------|---------|
| 0-30°    | {LUM00-30} lm  | #VALUE! |
| 0-40°    | {LUM00-40} lm  | #VALUE! |
| 0-60°    | {LUM00-60} lm  | #VALUE! |
| 60-90°   | {LUM60-90} lm  | #VALUE! |
| 70-100°  | {LUM70-100} lm | #VALUE! |
| 90-120°  | {LUM90-120} lm | #VALUE! |
| 0-90°    | {LUM00-90} lm  | #VALUE! |
| 90-180°  | {LUM90-180} lm | #VALUE! |
| 0-180°   | {LUM00-180} lm | #VALUE! |

### BUG rating

|                      | Lumen     | % Total |
|----------------------|-----------|---------|
| <b>Forward light</b> |           |         |
| Low(0-30°)           | {BUG0} lm | #VALUE! |
| Medium(30-60°)       | {BUG1} lm | #VALUE! |
| High(60-80°)         | {BUG2} lm | #VALUE! |
| Very high(80-90°)    | {BUG3} lm | #VALUE! |

### Back light

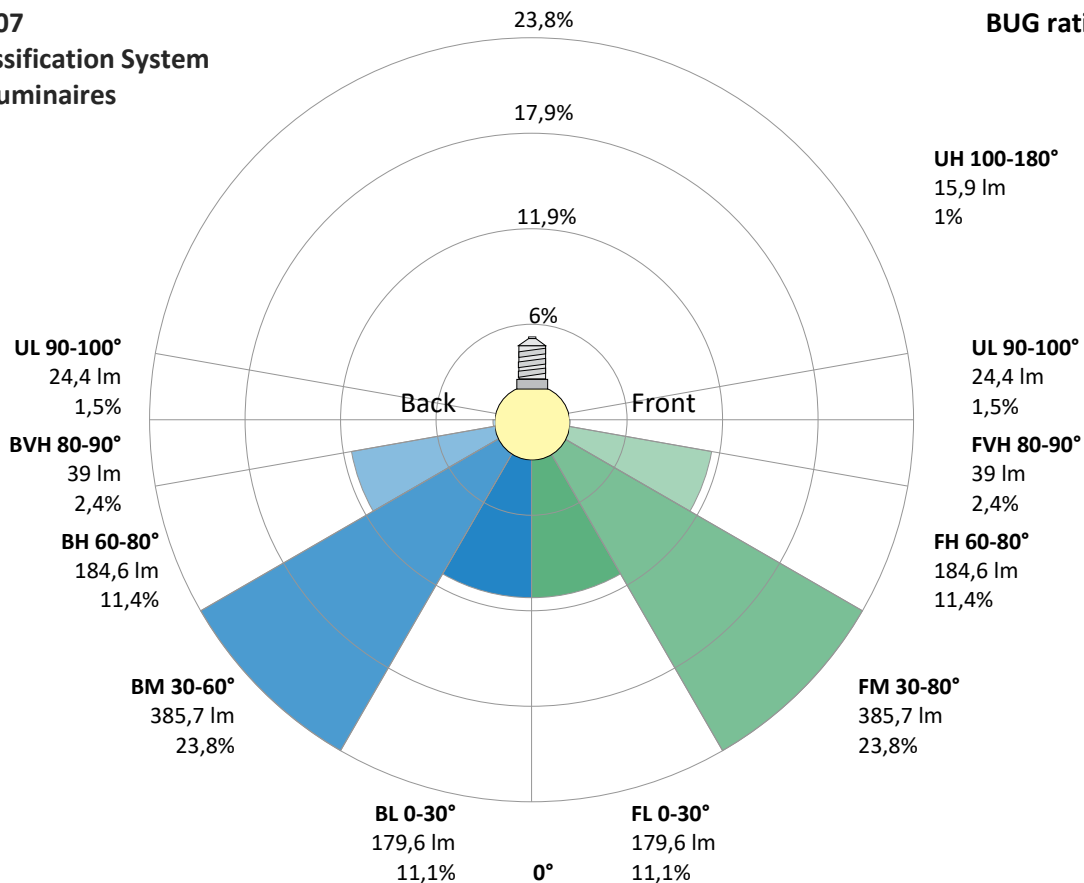
|                   |           |         |
|-------------------|-----------|---------|
| Low(0-30°)        | {BUG4} lm | #VALUE! |
| Medium(30-60°)    | {BUG5} lm | #VALUE! |
| High(60-80°)      | {BUG6} lm | #VALUE! |
| Very high(80-90°) | {BUG7} lm | #VALUE! |

### Uplight

|                |           |         |
|----------------|-----------|---------|
| Low(90-100°)   | {BUG8} lm | #VALUE! |
| High(100-180°) | {BUG9} lm | #VALUE! |

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

BUG rating B1 U2 G1



# Light Measurement Report

Print date: 16-2-2026

Measurement date and time: 13-2-2026 17:30:08 – Measurement no. VFR-260213-4250-MS

Measurement tracking No. and Link: [VT260213-009527](#)

Operator:

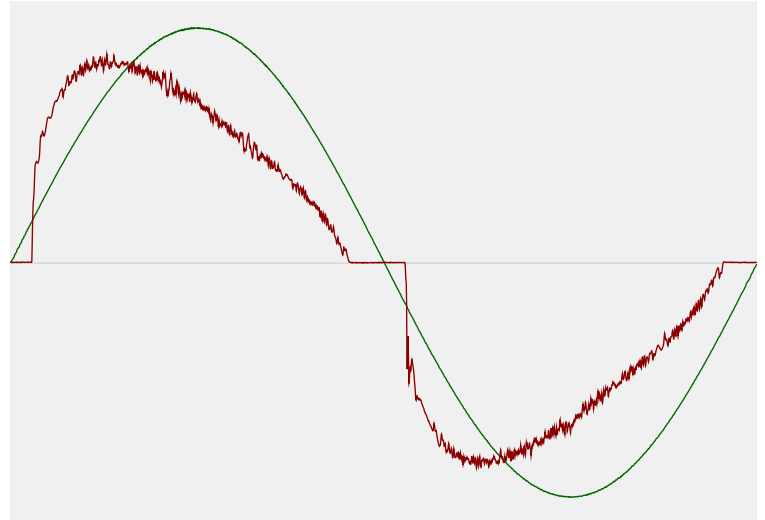


## Power Details

### Input Power

|   |          |
|---|----------|
| Power feed to light source                          | 14,6 W   |
| Frequency of input power                            | 50 Hz    |
| RMS Input voltage feed, $V_{RMS}$                   | 230 V    |
| RMS Input current feed, $I_{RMS}$                   | 0,069 A  |
| Volt-Ampere or apparent power = $V_{RMS} * I_{RMS}$ | 15,84 VA |
| Displacement factor of AC power feed                | 0,95     |
| Power factor of AC current feed                     | 0,92     |
| Total harmonic distortion of the current            | 22,04%   |
| Total harmonic distortion of the voltage            | 0,07%    |

### Input Power Curve



### Efficiency

Radiated power efficiency 35,2%



Lumen efficiency 110 lm/W



## Stabilization Details

### Warmup Conditions

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

### Color Temperature Change

|           |        |
|-----------|--------|
| CCT start | 6083 K |
| CCT shift | +26 K  |
| CCT end   | 6109 K |

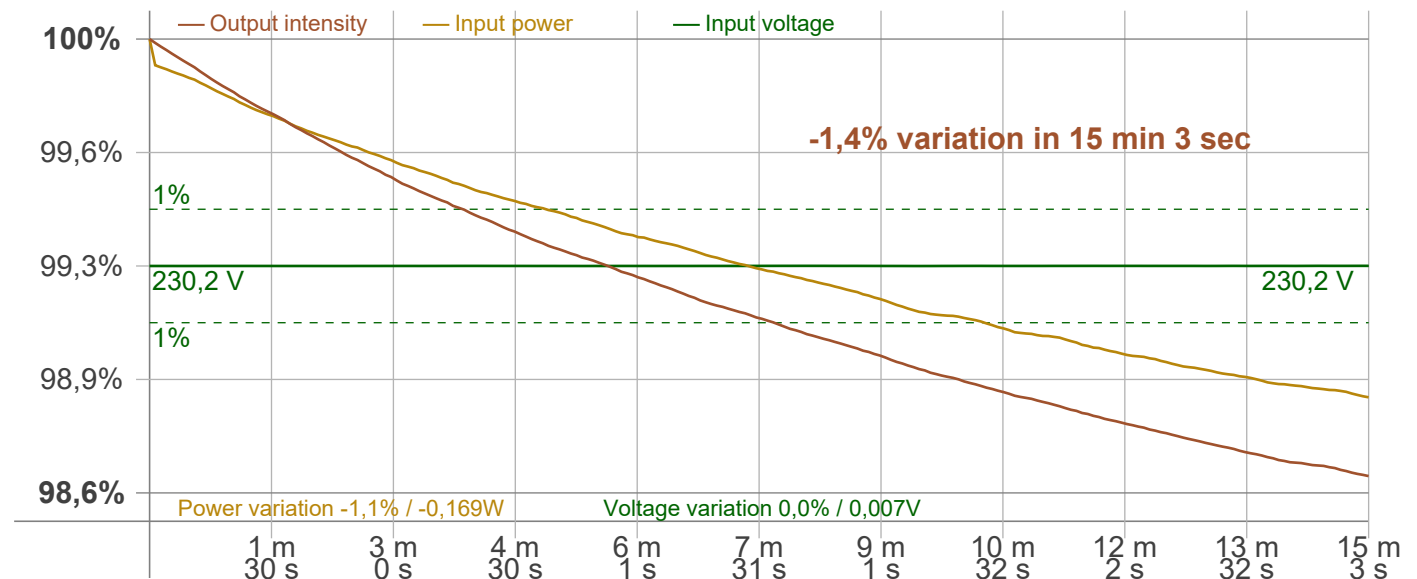
### Warmup Result

|                   |                                 |
|-------------------|---------------------------------|
| Total warmup time | Lamp stabilized in 15 min 3 sec |
| Warmup variation  | -1,4%                           |

### Output Change

|               |         |
|---------------|---------|
| Output start  | 1641 lm |
| Output change | -23 lm  |
| Output end    | 1618 lm |

### Stabilization Curve



# Light Measurement Report

Print date: 16-2-2026

Measurement date and time: 13-2-2026 17:30:08 – Measurement no. VFR-260213-4250-MS

Measurement tracking No. and Link: [VT260213-009527](#)

Operator:



## Flicker /TLA details

Flicker Meter Type Viso Systems LabFlicker  
 Frequency of input power 50 Hz  
 Flicker/TLA sample rate n/a samples/s

**Measurement time**  
 PstLM 180 sec  
 All other indices 1,2 sec

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

Flicker frequency n/a Hz  
 Percent Flicker n/a %  
 Flicker index n/a

### 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) n/a  
 SVM value (80 < F < 2000 Hz) n/a

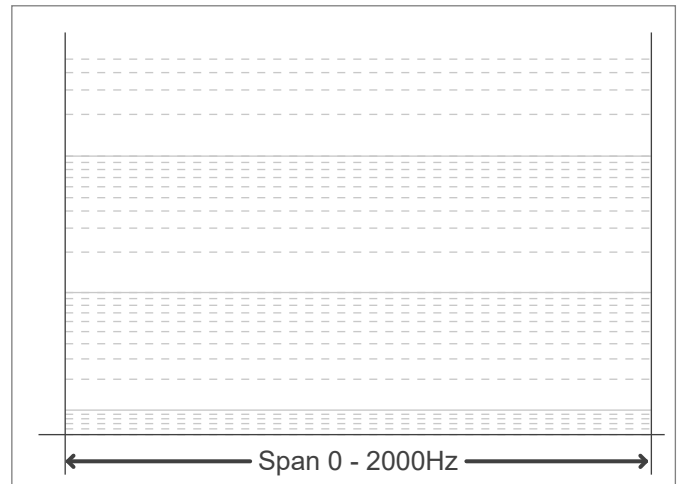
### Flicker indices according to Lighting Research Center (2015)

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

