

# PHOTOMETRIC TEST REPORT

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DECOR PRO ROUND FLUSH  
FIXED - TEXTURED WHITE -  
4002963

astro

DECOR PRO ROUND FLUSH FIXED -

astro

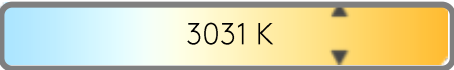
LIGHT EFFICIENCY:



LIGHT QUALITY:



COLOR TEMPERATURE:



OUTPUT: 1354 lm  
PEAK: 2477 cd  
POWER: 11.8 W  
PF: 0.95



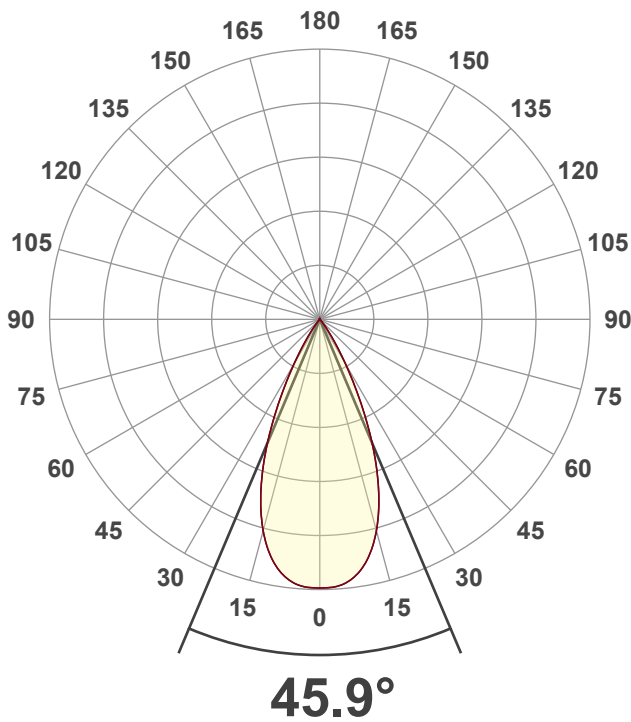
Tracking number: [n/a](#)

Product name:  
Decor Pro Round Flush Fixed - Textured  
White - 4002963

Item number:  
DRFF-TW-HE30G1-50G1-X-D1

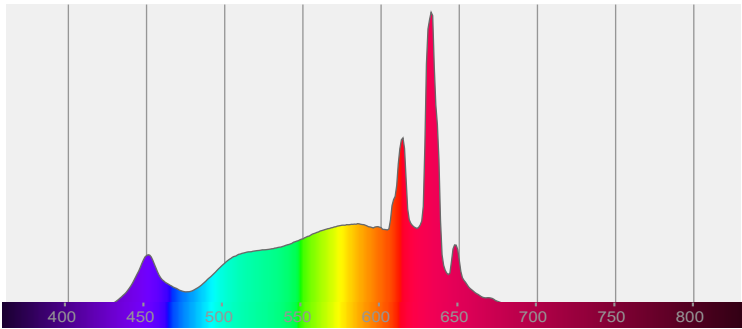
Date and time:  
31/01/2025 14:36:45

Description:  
IP20 LED Downlight

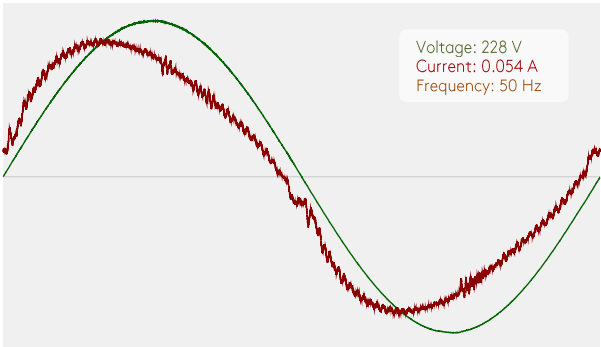


CIE 1931  
x: 0.437  
y: 0.407

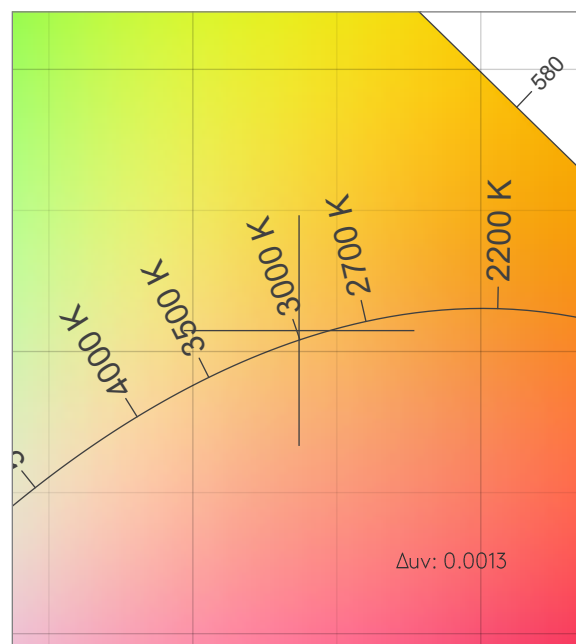
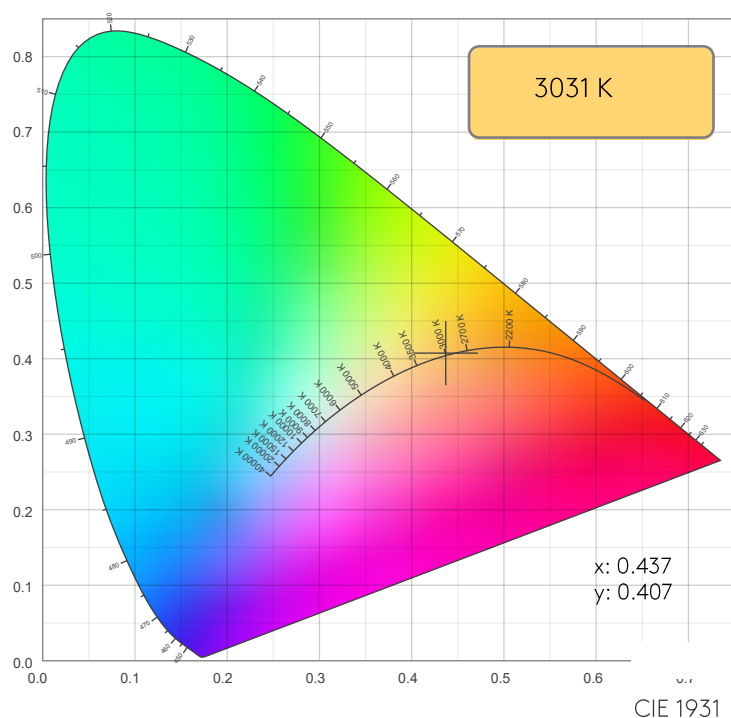
SPECTRA



POWER

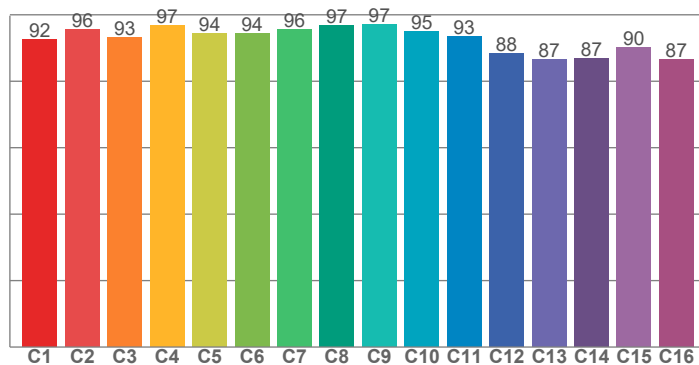


## COLOR DETAILS

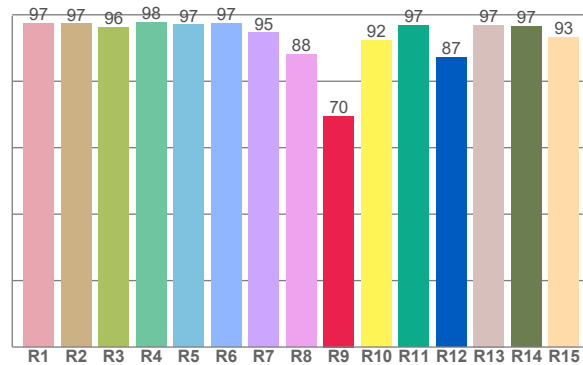


CIE 1931 ZOOM

TM30: 93.2



CRI: 95.7 (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  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 97.4 | 97.3 | 96.3 | 97.8 | 97.0 | 97.5 | 94.6 | 88.1 | 69.5 | 92.2 | 96.9 | 87.2 | 96.9 | 96.6 | 93.1 |

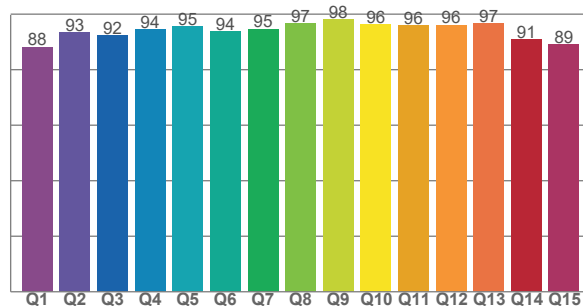
TM30 C values, 16 binned values out of total of 99 C values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 92.5 | 95.5 | 93.2 | 96.7 | 94.5 | 94.5 | 95.7 | 96.8 | 97.1 | 94.9 | 93.4 | 88.4 | 86.6 | 86.9 | 90.1 | 86.5 |

CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 88.2 | 93.3 | 92.3 | 94.4 | 95.5 | 93.8 | 94.6 | 96.6 | 98.1 | 96.2 | 95.9 | 96.2 | 96.6 | 90.8 | 89.1 |

CQS: 93.3



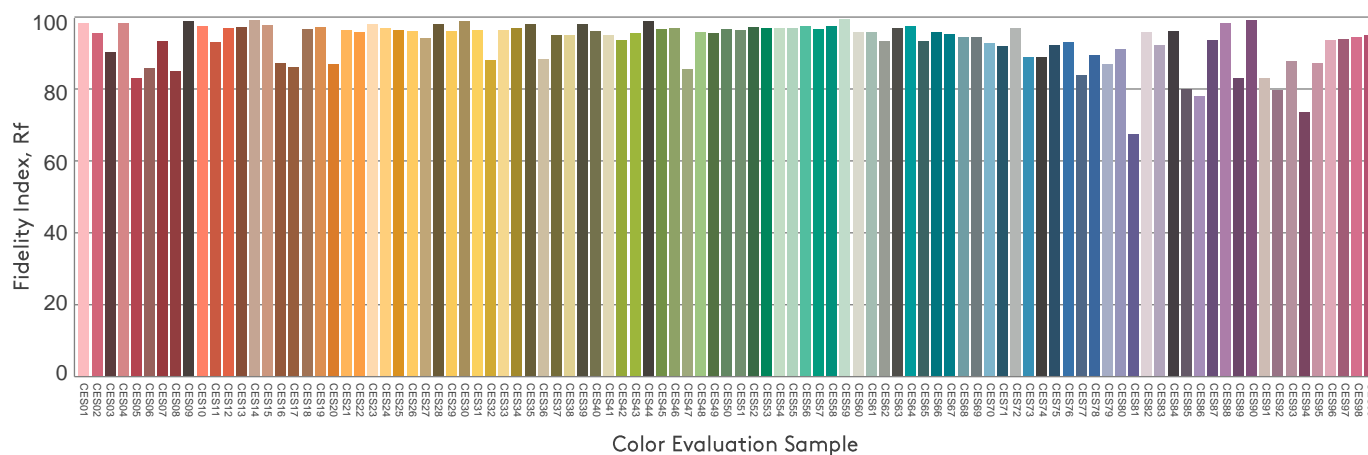
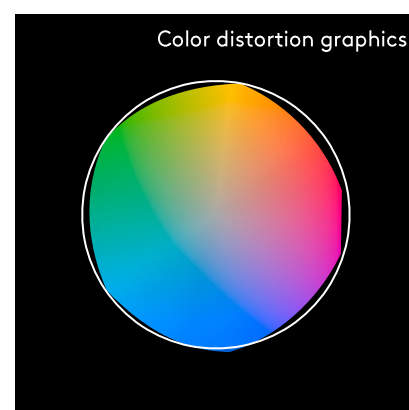
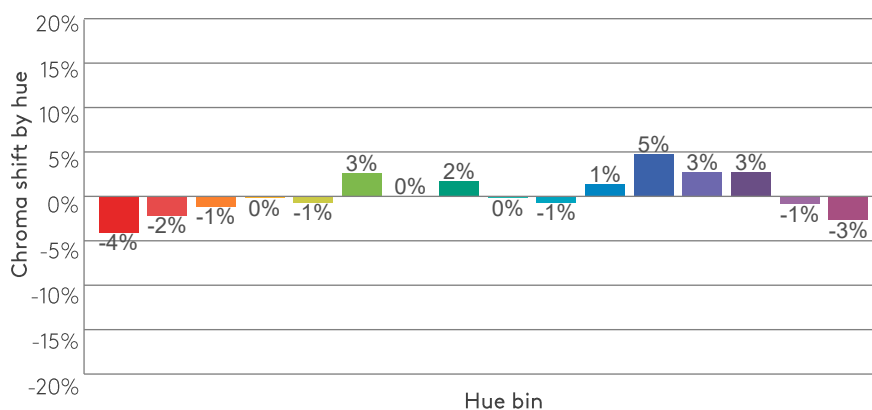
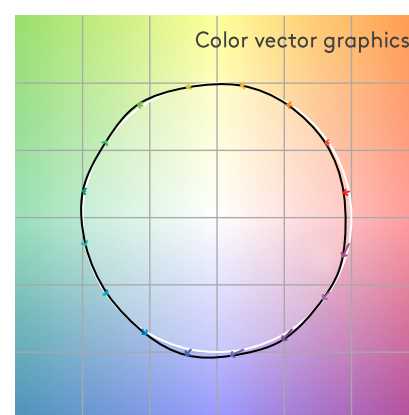
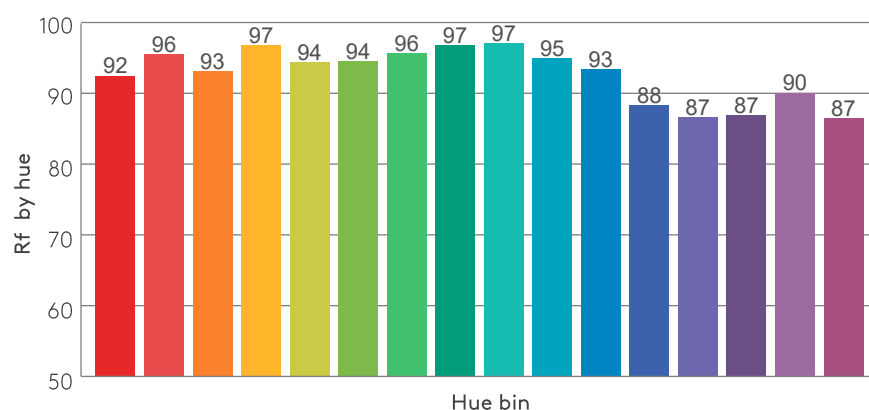
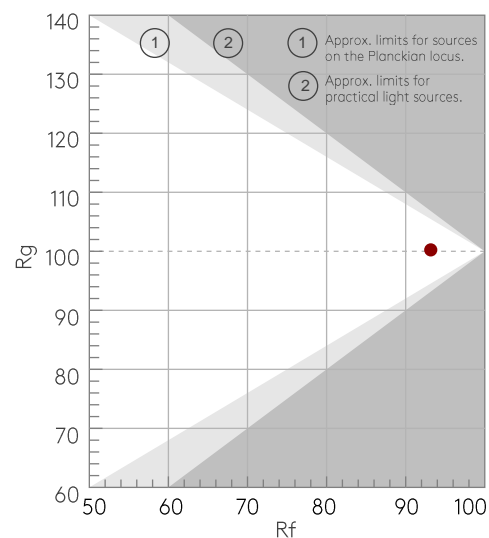
## COLOR PARAMETERS

| 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                | $\Delta uv$                     |
| 3031 K            | 95.7                  | 69.5          | 93.2           | 100.2       | 93.3                | 0.437                     | 0.407                     | 0.249            | 0.348            | 0.0013                          |

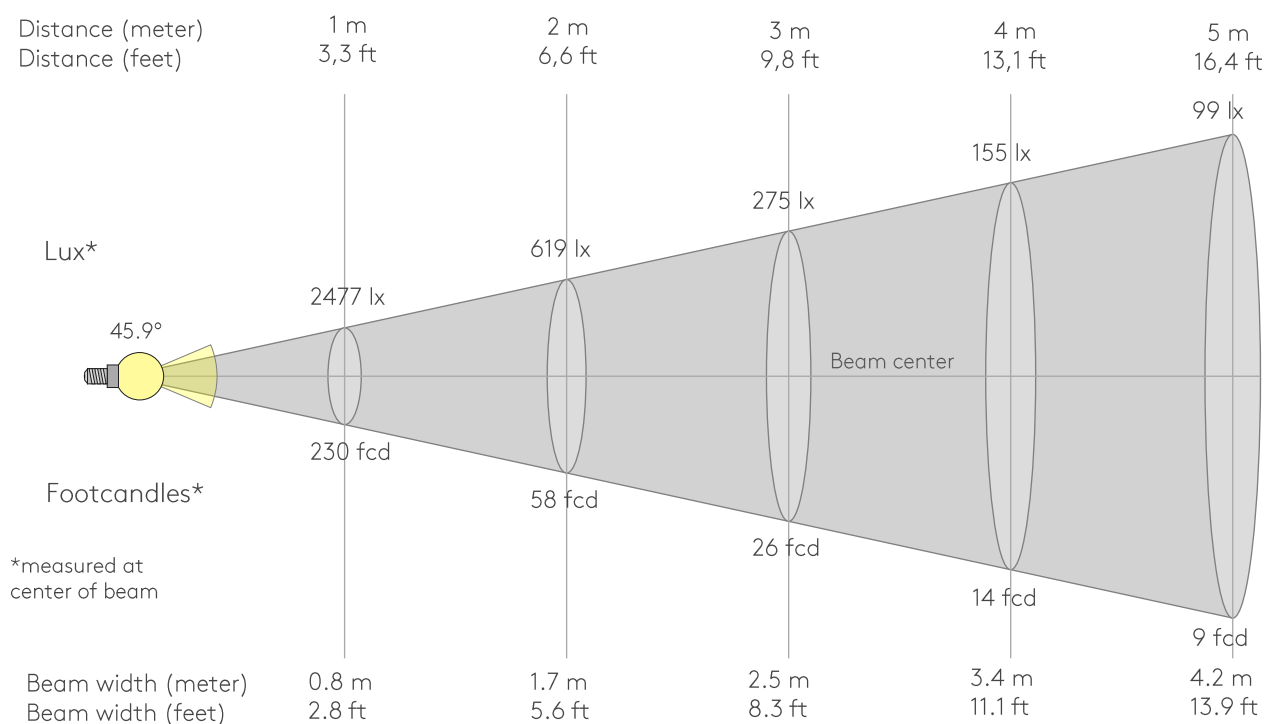
Rf 93.2  
Fidelity index Rf

Rg 100.2  
Gammut index Rg

| Hue Bin | Rf | Graphic shifts (%) |      |
|---------|----|--------------------|------|
|         |    | Chroma             | Hue  |
| 1       | 92 | -4%                | -1%  |
| 2       | 96 | -2%                | 1%   |
| 3       | 93 | -1%                | 3%   |
| 4       | 97 | 0%                 | 1%   |
| 5       | 94 | -1%                | 3%   |
| 6       | 94 | 3%                 | 2%   |
| 7       | 96 | 0%                 | -1%  |
| 8       | 97 | 2%                 | 0%   |
| 9       | 97 | 0%                 | 1%   |
| 10      | 95 | -1%                | 2%   |
| 11      | 93 | 1%                 | 4%   |
| 12      | 88 | 5%                 | -3%  |
| 13      | 87 | 3%                 | -10% |
| 14      | 87 | 3%                 | -10% |
| 15      | 90 | -1%                | -6%  |
| 16      | 87 | -3%                | -10% |



## BEAM DETAILS



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 |
| 2477lx   | 619lx   | 275lx   | 155lx   | 99lx   | 69lx   | 51lx   | 39lx   | 31lx   | 25lx   | 20lx   | 17lx   | 15lx   | 13lx   | 11lx   | 10lx   | 9lx    | 8lx    | 7lx    | 6lx    |
| 230.2fcd | 57.5fcd | 25.6fcd | 14.4fcd | 9.2fcd | 6.4fcd | 4.7fcd | 3.6fcd | 2.8fcd | 2.3fcd | 1.9fcd | 1.6fcd | 1.4fcd | 1.2fcd | 1fcd   | 0.9fcd | 0.8fcd | 0.7fcd | 0.6fcd | 0.6fcd |

Intensities in 0° c-plane

| 0°   | 2°   | 4°   | 6°   | 8°   | 10°  | 12°  | 14°  | 16°  | 18°  | 20°  | 22°  | 24°  | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| 2477 | 2475 | 2463 | 2434 | 2384 | 2311 | 2212 | 2087 | 1936 | 1761 | 1562 | 1344 | 1112 | 879 | 663 | 477 | 324 | 206 | 121 | 65  |
| 100% | 100% | 99%  | 98%  | 96%  | 93%  | 89%  | 84%  | 78%  | 71%  | 63%  | 54%  | 45%  | 35% | 27% | 19% | 13% | 8%  | 5%  | 3%  |

Intensities in 90° c-plane

| 0°   | 2°   | 4°   | 6°   | 8°   | 10°  | 12°  | 14°  | 16°  | 18°  | 20°  | 22°  | 24°  | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| 2477 | 2475 | 2463 | 2434 | 2384 | 2311 | 2212 | 2087 | 1936 | 1761 | 1562 | 1344 | 1112 | 879 | 663 | 477 | 324 | 206 | 121 | 65  |
| 100% | 100% | 99%  | 98%  | 96%  | 93%  | 89%  | 84%  | 78%  | 71%  | 63%  | 54%  | 45%  | 35% | 27% | 19% | 13% | 8%  | 5%  | 3%  |

Intensities in 180° c-plane

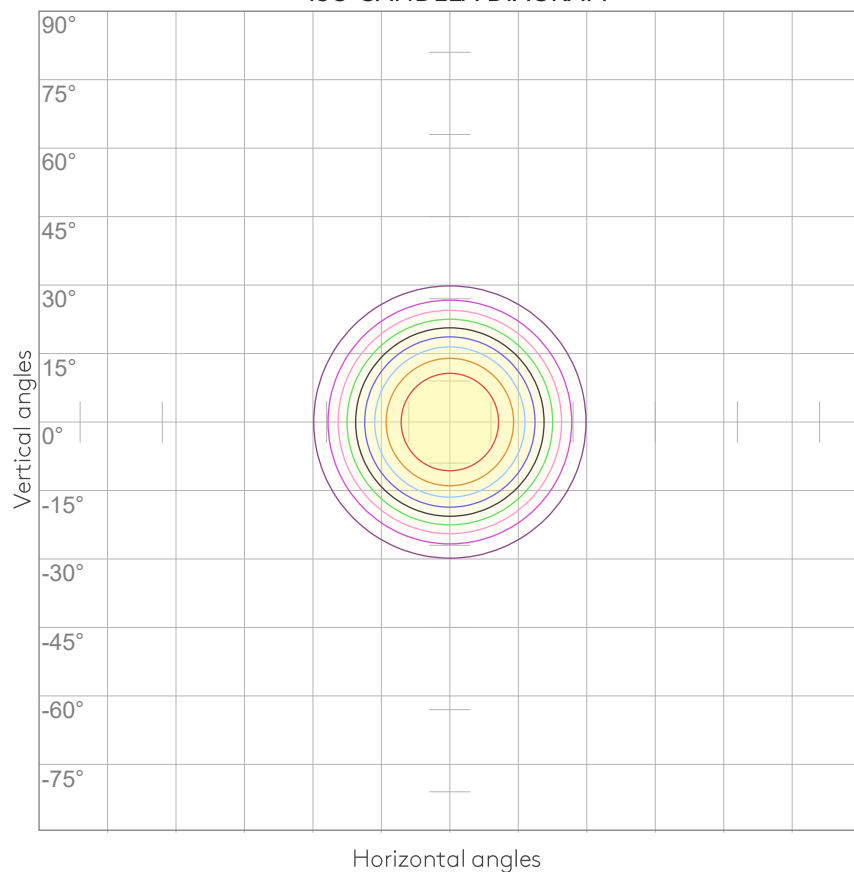
| 0°   | 2°   | 4°   | 6°   | 8°   | 10°  | 12°  | 14°  | 16°  | 18°  | 20°  | 22°  | 24°  | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| 2477 | 2475 | 2463 | 2434 | 2384 | 2311 | 2212 | 2087 | 1936 | 1761 | 1562 | 1344 | 1112 | 879 | 663 | 477 | 324 | 206 | 121 | 65  |
| 100% | 100% | 99%  | 98%  | 96%  | 93%  | 89%  | 84%  | 78%  | 71%  | 63%  | 54%  | 45%  | 35% | 27% | 19% | 13% | 8%  | 5%  | 3%  |

Intensities in 270° c-plane

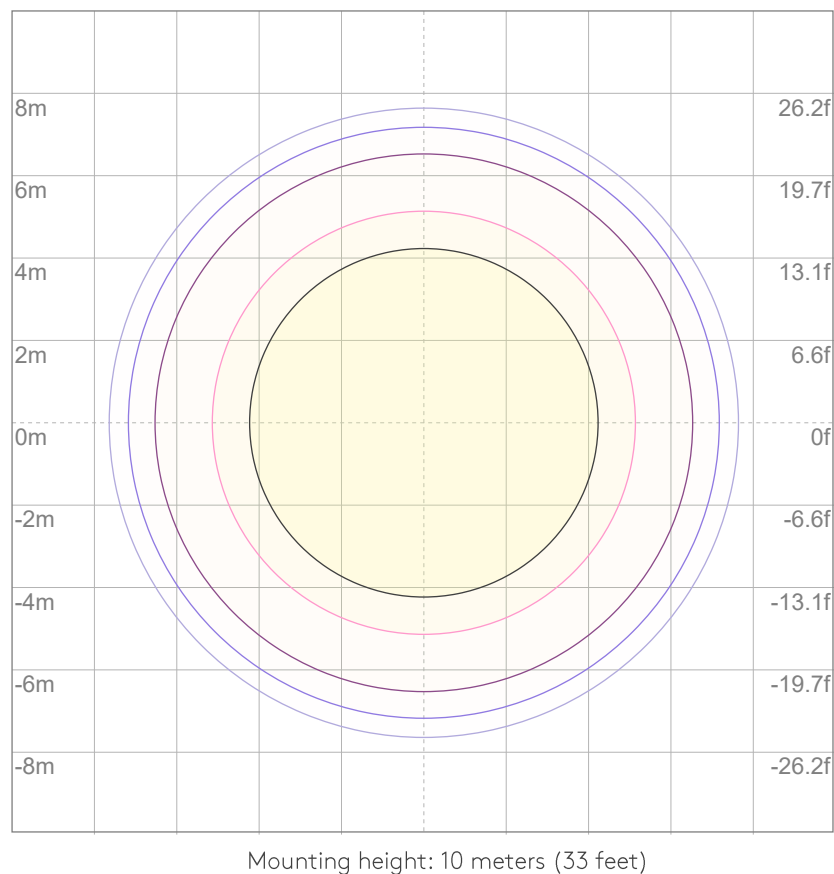
| 0°   | 2°   | 4°   | 6°   | 8°   | 10°  | 12°  | 14°  | 16°  | 18°  | 20°  | 22°  | 24°  | 26° | 28° | 30° | 32° | 34° | 36° | 38° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| 2477 | 2475 | 2463 | 2434 | 2384 | 2311 | 2212 | 2087 | 1936 | 1761 | 1562 | 1344 | 1112 | 879 | 663 | 477 | 324 | 206 | 121 | 65  |
| 100% | 100% | 99%  | 98%  | 96%  | 93%  | 89%  | 84%  | 78%  | 71%  | 63%  | 54%  | 45%  | 35% | 27% | 19% | 13% | 8%  | 5%  | 3%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 45.9°          | 66.3°           | 76.2°             | 99.8%                        | 99.6%                       |

ISO CANDELA DIAGRAM



ISO LUX DIAGRAM



## UGR

## GLARE EVALUATION ACCORDING TO UGR

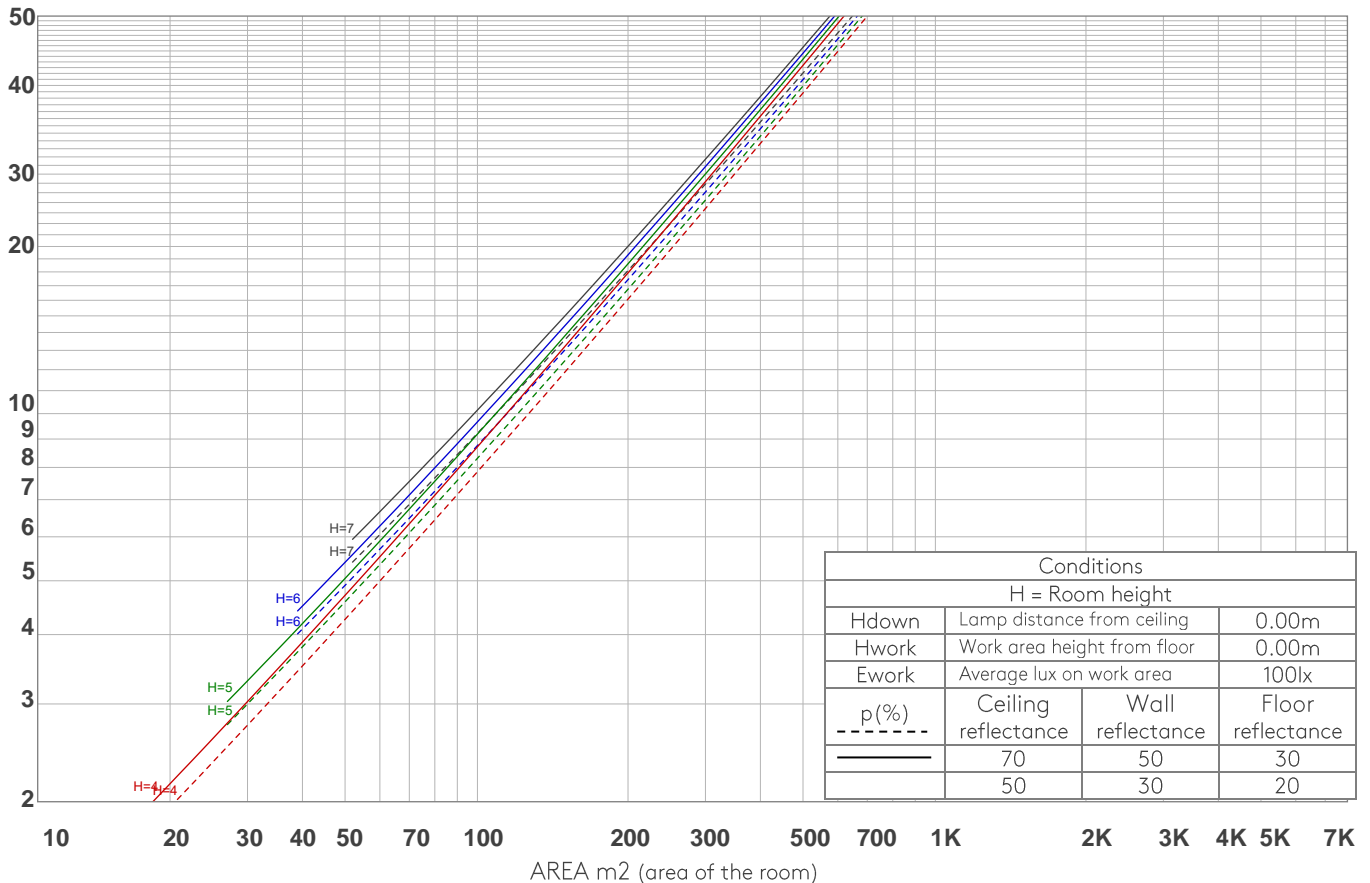
|  |     |  |      |      |      |      |   |      |      |      |      |
|--|-----|--|------|------|------|------|---|------|------|------|------|
| p Ceiling  |     | 70   | 70   | 50   | 50   | 30   | 70                                      | 70   | 50   | 50   | 30   |
| p Walls  |     | 50   | 30   | 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  | 18.2   | 18.8 | 18.3 | 19.0 | 19.2 | 18.2                                    | 18.8 | 18.3 | 19.0 | 19.2 |
|  | 3H  | 17.9   | 18.6 | 18.3 | 18.8 | 19.0 | 17.9                                    | 18.6 | 18.3 | 18.8 | 19.0 |
|  | 4H  | 17.9   | 18.5 | 18.2 | 18.7 | 18.9 | 17.9                                    | 18.5 | 18.2 | 18.7 | 18.9 |
|  | 6H  | 17.9   | 18.4 | 18.1 | 18.7 | 19.0 | 17.9                                    | 18.4 | 18.1 | 18.7 | 19.0 |
|  | 8H  | 17.8   | 18.3 | 18.1 | 18.6 | 19.0 | 17.8                                    | 18.3 | 18.1 | 18.6 | 19.0 |
|  | 12H | 17.7   | 18.2 | 18.1 | 18.6 | 19.0 | 17.7                                    | 18.2 | 18.1 | 18.6 | 19.0 |
| 4H   | 2H  | 17.9   | 18.5 | 18.2 | 18.7 | 18.9 | 17.9                                    | 18.5 | 18.2 | 18.7 | 18.9 |
|  | 3H  | 17.7   | 18.2 | 18.1 | 18.6 | 19.0 | 17.7                                    | 18.2 | 18.1 | 18.6 | 19.0 |
|  | 4H  | 17.6   | 18.0 | 18.0 | 18.5 | 19.0 | 17.6                                    | 18.0 | 18.0 | 18.5 | 19.0 |
|  | 6H  | 17.5   | 18.0 | 18.0 | 18.3 | 18.7 | 17.5                                    | 18.0 | 18.0 | 18.3 | 18.7 |
|  | 8H  | 17.5   | 17.9 | 18.0 | 18.3 | 18.6 | 17.5                                    | 17.9 | 18.0 | 18.3 | 18.6 |
|  | 12H | 17.4   | 17.7 | 17.9 | 18.1 | 18.6 | 17.4                                    | 17.7 | 17.9 | 18.1 | 18.6 |
| 8H   | 4H  | 17.5   | 17.9 | 18.0 | 18.3 | 18.6 | 17.5                                    | 17.9 | 18.0 | 18.3 | 18.6 |
|  | 6H  | 17.4   | 17.7 | 17.9 | 18.1 | 18.7 | 17.4                                    | 17.7 | 17.9 | 18.1 | 18.7 |
|  | 8H  | 17.4   | 17.6 | 17.9 | 18.1 | 18.8 | 17.4                                    | 17.6 | 17.9 | 18.1 | 18.8 |
|  | 12H | 17.3   | 17.5 | 17.9 | 18.0 | 18.6 | 17.3                                    | 17.5 | 17.9 | 18.0 | 18.6 |
| 12H  | 4H  | 17.4   | 17.7 | 17.9 | 18.1 | 18.6 | 17.4                                    | 17.7 | 17.9 | 18.1 | 18.6 |
|  | 6H  | 17.4   | 17.6 | 17.9 | 18.1 | 18.8 | 17.4                                    | 17.6 | 17.9 | 18.1 | 18.8 |
|  | 8H  | 17.3   | 17.5 | 17.9 | 18.0 | 18.6 | 17.3                                    | 17.5 | 17.9 | 18.0 | 18.6 |
| Variation of the observer position for the luminaire distance S  |     |  |      |      |      |      |   |      |      |      |      |
| S = 1.0H   |     | 6.6 / -22.1                                    |      |      |      |      | 6.6 / -22.1                             |      |      |      |      |
| S = 1.5H   |     | 9.4 / -26.7                                    |      |      |      |      | 9.4 / -26.7                             |      |      |      |      |
| S = 2.0H   |     | 11.4 / -28.4                                   |      |      |      |      | 11.4 / -28.4                            |      |      |      |      |
| Standard table   |     | n/a  |      |      |      |      | n/a                                     |      |      |      |      |
| Correction summand   |     | n/a  |      |      |      |      | n/a                                     |      |      |      |      |
| Corrected glare indices referring to 1354 lm total luminous flux |     |  |      |      |      |      |   |      |      |      |      |

## 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 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1                   | 114  | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 95  |
| 2                   | 110  | 106 | 102 | 99  | 108 | 104 | 101 | 98  | 101 | 98  | 96  | 98  | 96  | 94  | 95  | 93  | 92  | 90  |
| 3                   | 105  | 100 | 96  | 92  | 103 | 99  | 95  | 92  | 96  | 93  | 90  | 94  | 91  | 89  | 91  | 89  | 87  | 86  |
| 4                   | 101  | 95  | 90  | 87  | 99  | 94  | 89  | 86  | 92  | 88  | 85  | 90  | 87  | 84  | 88  | 85  | 83  | 82  |
| 5                   | 97   | 90  | 85  | 82  | 96  | 89  | 85  | 81  | 88  | 84  | 81  | 86  | 83  | 80  | 84  | 82  | 79  | 78  |
| 6                   | 93   | 86  | 81  | 77  | 92  | 85  | 80  | 77  | 84  | 80  | 76  | 82  | 79  | 76  | 81  | 78  | 75  | 74  |
| 7                   | 90   | 82  | 77  | 73  | 89  | 81  | 77  | 73  | 80  | 76  | 73  | 79  | 75  | 72  | 78  | 75  | 72  | 71  |
| 8                   | 86   | 78  | 73  | 70  | 85  | 78  | 73  | 70  | 77  | 72  | 69  | 76  | 72  | 69  | 75  | 71  | 69  | 68  |
| 9                   | 83   | 75  | 70  | 67  | 82  | 74  | 70  | 67  | 74  | 69  | 66  | 73  | 69  | 66  | 72  | 68  | 66  | 65  |
| 10                  | 80   | 72  | 67  | 64  | 79  | 71  | 67  | 64  | 71  | 66  | 63  | 70  | 66  | 63  | 69  | 66  | 63  | 62  |

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°   |
| 230 lm   | 553 lm    | 448 lm    | 112 lm    | 6.38 lm   | 1.27 lm   | 0.196 lm  | 0.054 lm  | 0.051 lm  |
| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 0.052 lm | 0.059 lm  | 0.069 lm  | 0.104 lm  | 0.268 lm  | 0.503 lm  | 0.577 lm  | 0.395 lm  | 0.114 lm  |

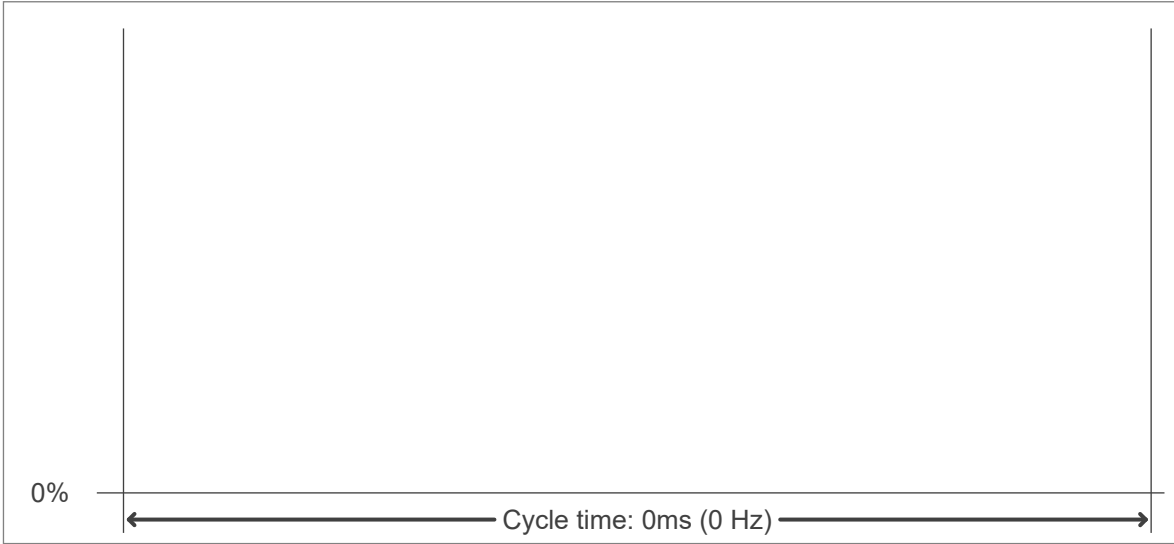


FLICKER

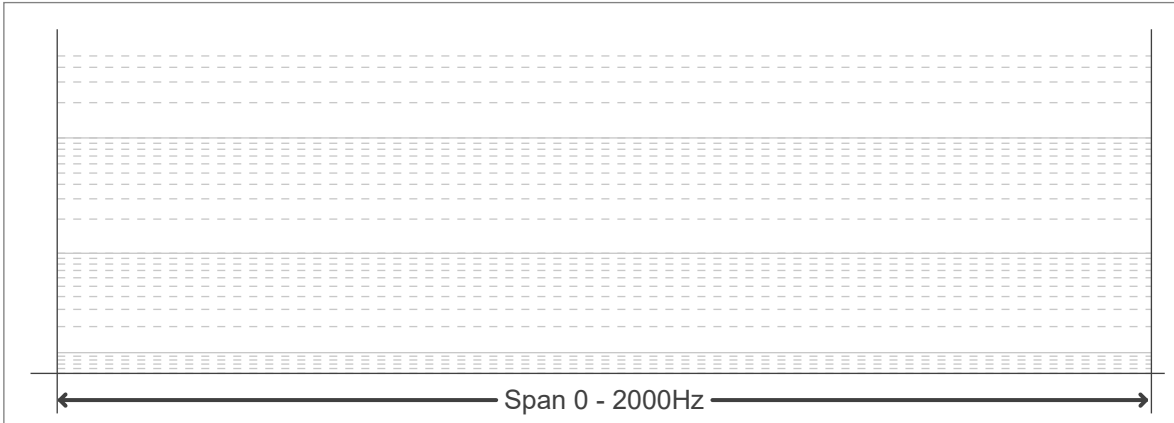
FLICKER CURVE (COMPLETE SAMPLED)



FLICKER FRAME (FRAME OF ONE FLICKER)



FLICKER FFT (FREQUENCY SCOPE OF FLICKER)



FLICKER RESULTS:

|                       |        |
|-----------------------|--------|
| Flicker frequency:    | n/a Hz |
| Flicker index:        | n/a    |
| Flicker percentage:   | n/a %  |
| SVM: (Visual flicker) | n/a    |

FLICKER CONDITIONS:

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