

## Light efficiency:

**129 Lumen/Watt****Output: 1423 lm**

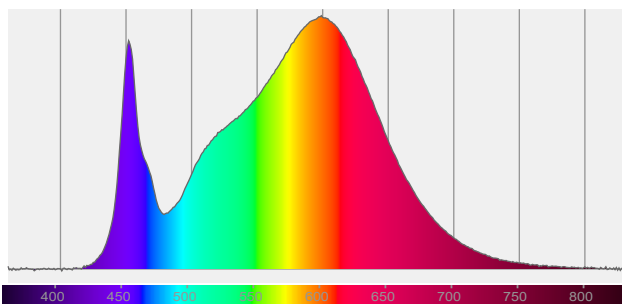
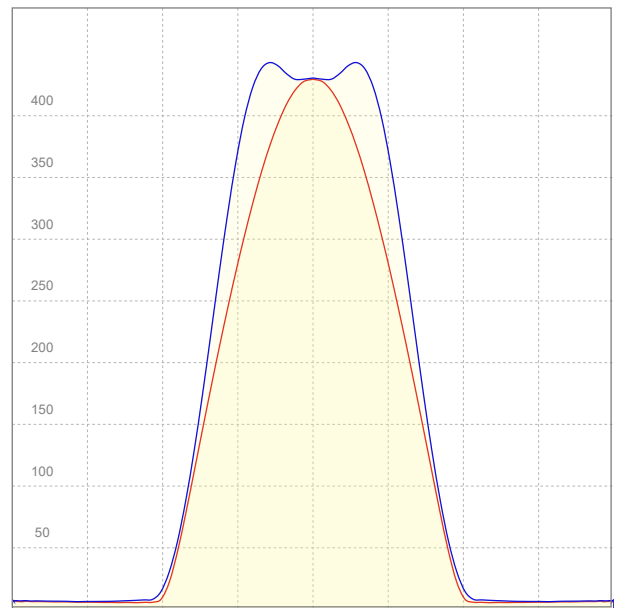
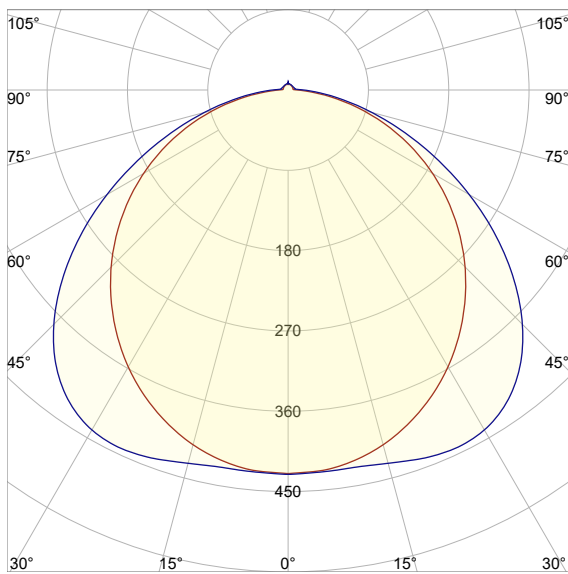
## Light quality:

**CRI: 81.7****Peak: 443 cd**

## Color temperature:

**3421 K****Power: 11.1 W****PF: 1.0**

No photo



## Product name:

**NANOSquare - Direct Batwing 60°**

## Item number:

**NSQ95**

## Configuration:

**NSQ95-4FT-3580-AL-DB60-350LPF**

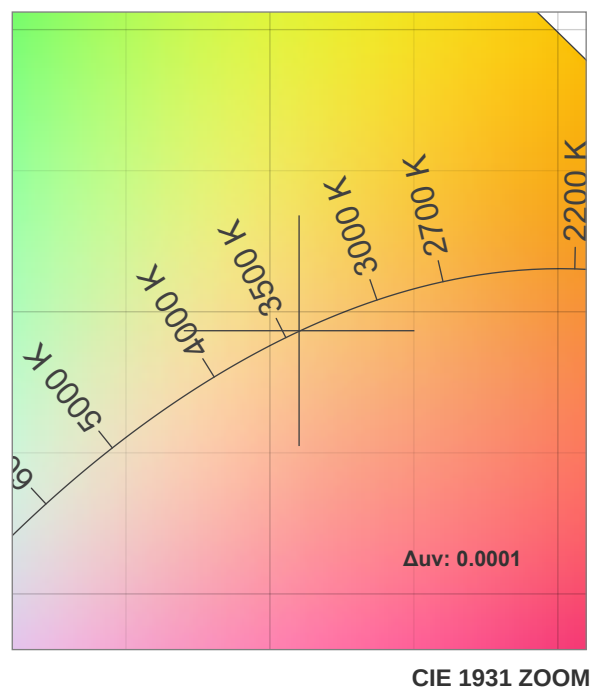
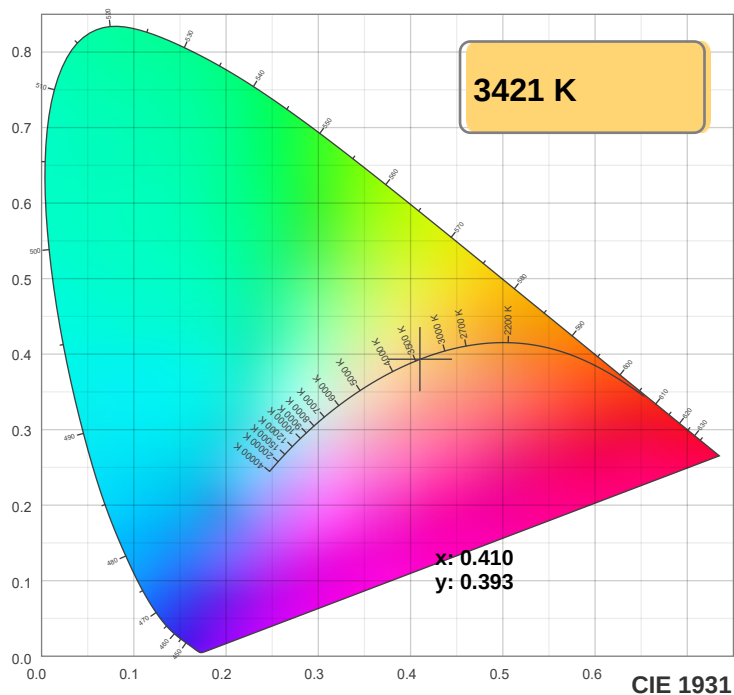
## Date and time:

**4/4/2022 12:43:55 PM**

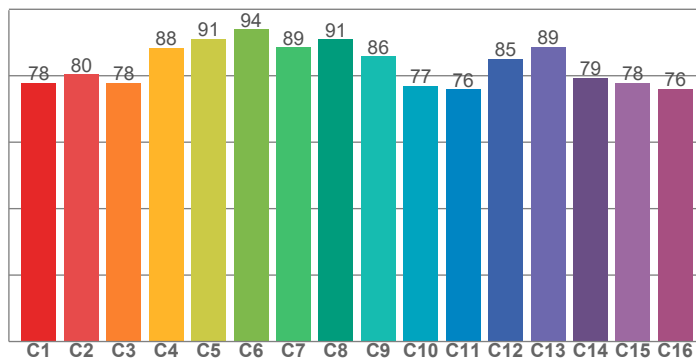
## Description:

**Power Supply @ .31**

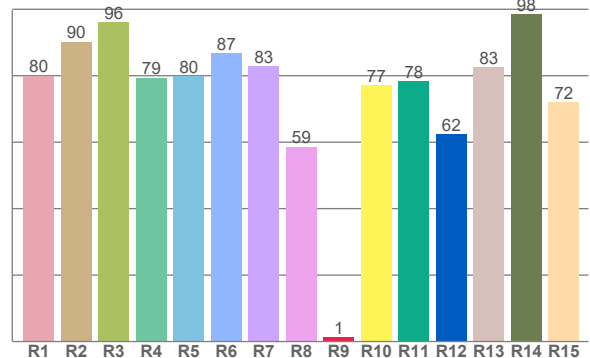
## Color Details



TM-30: 83.1



CRI: 81.7 (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  |
|------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|
| 80.0 | 90.2 | 96.1 | 79.4 | 79.9 | 86.8 | 82.9 | 58.7 | 1.3 | 77.1 | 78.3 | 62.4 | 82.6 | 98.4 | 72.1 |

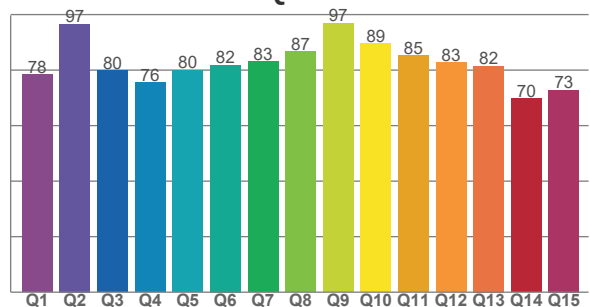
TM30 C values, 16 binned values out of total of 99 C values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 77.9 | 80.5 | 77.9 | 88.4 | 91.1 | 93.9 | 88.5 | 91.0 | 85.9 | 77.0 | 75.9 | 85.2 | 88.6 | 79.3 | 77.8 | 76.0 |

CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 78.4 | 96.6 | 79.8 | 75.5 | 79.9 | 81.8 | 83.1 | 86.6 | 96.8 | 89.5 | 85.2 | 82.7 | 81.5 | 69.7 | 72.8 |

CQS: 81.1



## 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                             |
| 3421 K            | 81.7                  | 1.3           | 83.1           | 94.6        | 81.1                | 0.410                     | 0.393                     | 0.238            | 0.342            | 0.0001                          |

## TM-30 Details

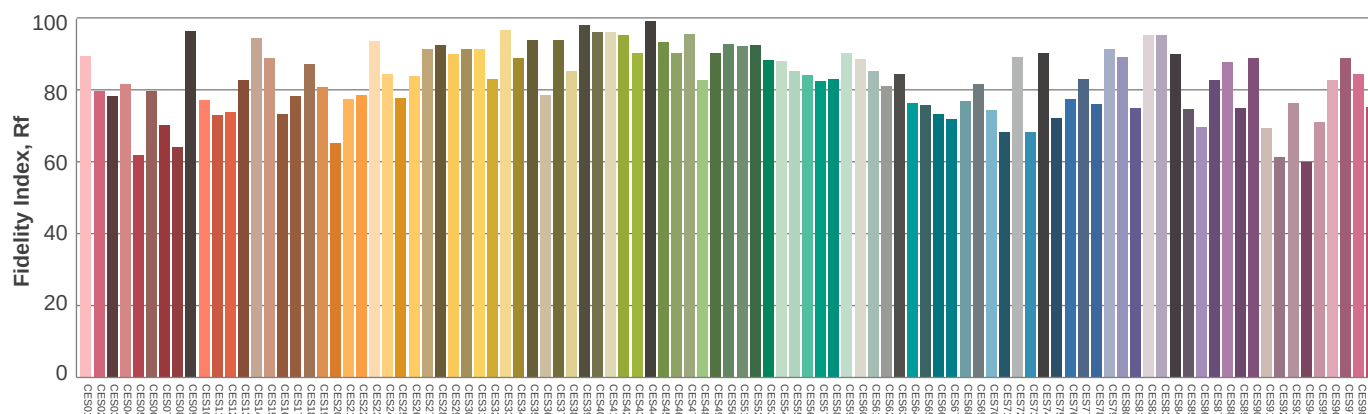
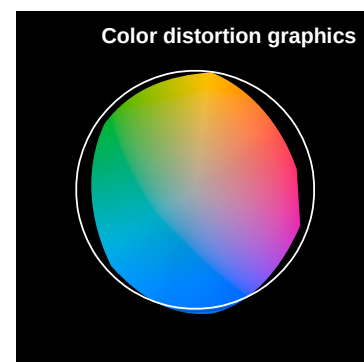
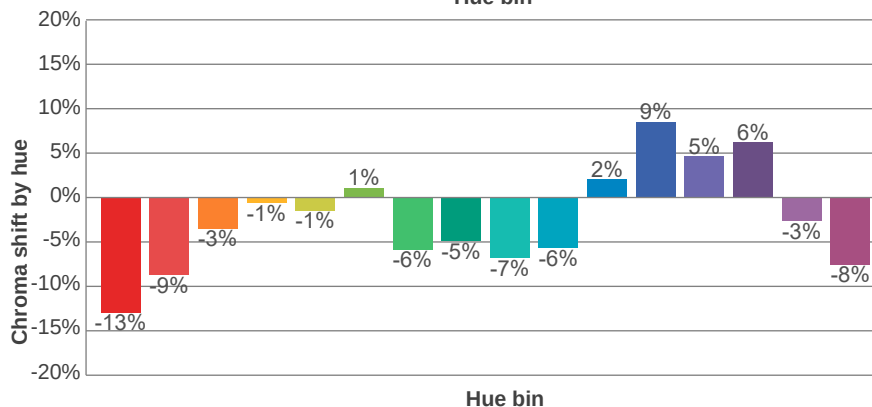
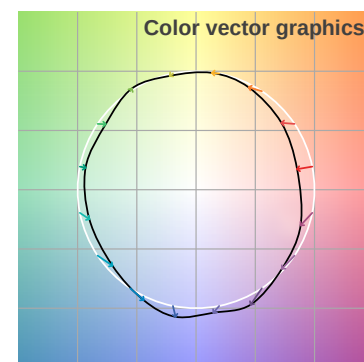
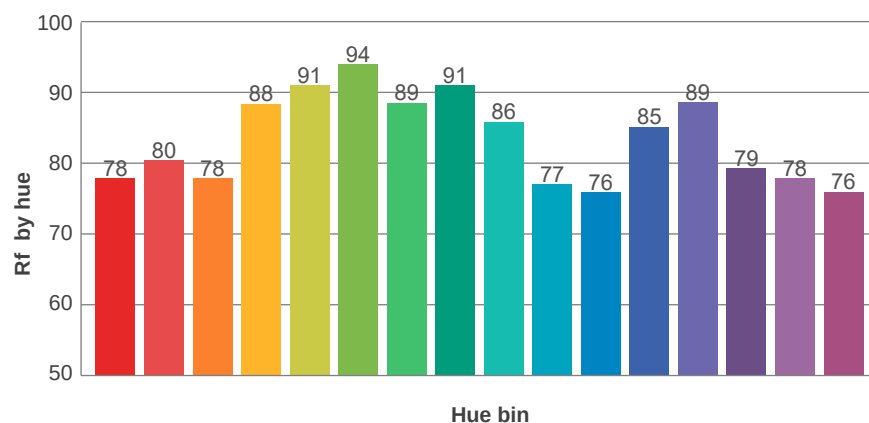
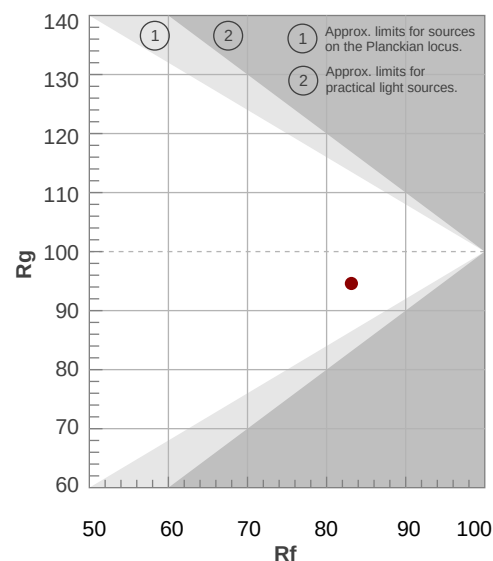
**Rf 83.1**

Fidelity index Rf

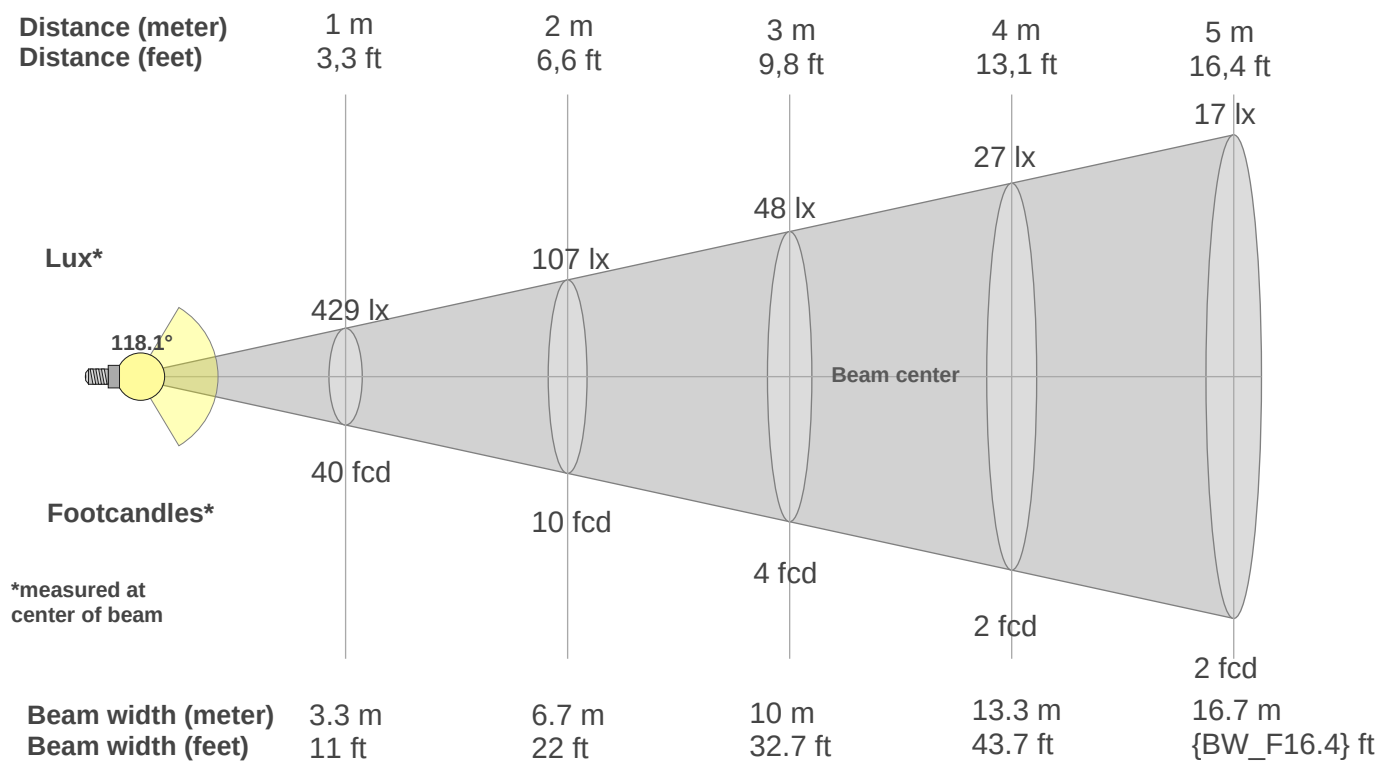
**Rg 94.6**

Gamut index Rg

| Hue Bin | R <sub>f</sub> | Shifts (%) |      |
|---------|----------------|------------|------|
|         |                | Chroma     | Hue  |
| 1       | 78             | -13%       | 0%   |
| 2       | 80             | -9%        | 7%   |
| 3       | 78             | -3%        | 11%  |
| 4       | 88             | -1%        | 6%   |
| 5       | 91             | -1%        | 3%   |
| 6       | 94             | 1%         | -2%  |
| 7       | 89             | -6%        | -4%  |
| 8       | 91             | -5%        | 0%   |
| 9       | 86             | -7%        | 7%   |
| 10      | 77             | -6%        | 14%  |
| 11      | 76             | 2%         | 15%  |
| 12      | 85             | 9%         | 4%   |
| 13      | 89             | 5%         | -6%  |
| 14      | 79             | 6%         | -16% |
| 15      | 78             | -3%        | -15% |
| 16      | 76             | -8%        | -12% |



## 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 |
| 429lx  | 107lx | 48lx   | 27lx   | 17lx   | 12lx   | 9lx    | 7lx    | 5lx    | 4lx    | 4lx    | 3lx    | 3lx    | 2lx    | 2lx    | 2lx    | 1lx    | 1lx    | 1lx    | 1lx    |
| 39.9fc | 10fcd | 4.4fcd | 2.5fcd | 1.6fcd | 1.1fcd | 0.8fcd | 0.6fcd | 0.5fcd | 0.4fcd | 0.3fcd | 0.3fcd | 0.2fcd | 0.2fcd | 0.2fcd | 0.2fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd |

## 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° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 429  | 428  | 422 | 411 | 397 | 379 | 358 | 334 | 308 | 280 | 250 | 219 | 187 | 153 | 119 | 86  | 54  | 27  | 11  | 6   |
| 100% | 100% | 98% | 96% | 92% | 88% | 83% | 78% | 72% | 65% | 58% | 51% | 43% | 36% | 28% | 20% | 12% | 6%  | 3%  | 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° |
|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 429  | 430  | 430  | 433  | 439  | 442  | 439  | 426 | 403 | 371 | 330 | 284 | 234 | 185 | 139 | 97  | 62  | 36  | 18  | 10  |
| 100% | 100% | 100% | 101% | 102% | 103% | 102% | 99% | 94% | 86% | 77% | 66% | 55% | 43% | 32% | 23% | 15% | 8%  | 4%  | 2%  |

## 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° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 429  | 428  | 422 | 411 | 397 | 379 | 358 | 334 | 308 | 280 | 250 | 219 | 187 | 153 | 119 | 86  | 54  | 27  | 11  | 6   |
| 100% | 100% | 98% | 96% | 92% | 88% | 83% | 78% | 72% | 65% | 58% | 51% | 43% | 36% | 28% | 20% | 12% | 6%  | 3%  | 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° |
|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 429  | 430  | 430  | 433  | 439  | 442  | 439  | 426 | 403 | 371 | 330 | 284 | 234 | 185 | 139 | 97  | 62  | 36  | 18  | 10  |
| 100% | 100% | 100% | 101% | 102% | 103% | 102% | 99% | 94% | 86% | 77% | 66% | 55% | 43% | 32% | 23% | 15% | 8%  | 4%  | 2%  |

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<br>lamp axis |      |      |      |      | Viewing direction parallel to lamp axis |      |      |      |      |
| 2H                                                                             | 2H  | 22.1                                              | 23.3 | 22.3 | 23.6 | 23.9 | 23.3                                    | 24.5 | 23.6 | 24.9 | 25.2 |
|                                                                                | 3H  | 23.5                                              | 24.8 | 24.0 | 25.1 | 25.4 | 24.7                                    | 26.0 | 25.2 | 26.3 | 26.6 |
|                                                                                | 4H  | 24.2                                              | 25.4 | 24.6 | 25.7 | 26.0 | 25.3                                    | 26.5 | 25.7 | 26.8 | 27.1 |
|                                                                                | 6H  | 24.7                                              | 25.8 | 25.1 | 26.1 | 26.5 | 25.8                                    | 26.9 | 26.2 | 27.2 | 27.6 |
|                                                                                | 8H  | 24.9                                              | 25.9 | 25.3 | 26.3 | 26.8 | 26.0                                    | 27.0 | 26.4 | 27.4 | 27.9 |
|                                                                                | 12H | 25.0                                              | 26.0 | 25.5 | 26.4 | 26.9 | 26.2                                    | 27.2 | 26.6 | 27.5 | 28.0 |
| 4H                                                                             | 2H  | 22.9                                              | 24.1 | 23.3 | 24.4 | 24.7 | 23.8                                    | 25.0 | 24.3 | 25.4 | 25.7 |
|                                                                                | 3H  | 24.6                                              | 25.6 | 25.1 | 26.0 | 26.5 | 25.6                                    | 26.6 | 26.0 | 26.9 | 27.4 |
|                                                                                | 4H  | 25.3                                              | 26.3 | 25.8 | 26.7 | 27.3 | 26.2                                    | 27.2 | 26.7 | 27.6 | 28.2 |
|                                                                                | 6H  | 25.9                                              | 26.8 | 26.5 | 27.2 | 27.6 | 26.8                                    | 27.7 | 27.3 | 28.1 | 28.5 |
|                                                                                | 8H  | 26.2                                              | 27.0 | 26.7 | 27.4 | 27.8 | 27.1                                    | 27.8 | 27.6 | 28.3 | 28.7 |
|                                                                                | 12H | 26.4                                              | 27.0 | 26.9 | 27.5 | 28.0 | 27.3                                    | 27.9 | 27.8 | 28.4 | 29.0 |
| 8H                                                                             | 4H  | 25.7                                              | 26.5 | 26.2 | 26.9 | 27.4 | 26.5                                    | 27.3 | 27.0 | 27.7 | 28.1 |
|                                                                                | 6H  | 26.5                                              | 27.1 | 27.0 | 27.6 | 28.2 | 27.2                                    | 27.9 | 27.8 | 28.4 | 29.0 |
|                                                                                | 8H  | 26.9                                              | 27.4 | 27.4 | 28.0 | 28.6 | 27.6                                    | 28.2 | 28.2 | 28.7 | 29.4 |
|                                                                                | 12H | 27.2                                              | 27.6 | 27.8 | 28.2 | 28.8 | 28.0                                    | 28.4 | 28.6 | 29.0 | 29.6 |
| 12H                                                                            | 4H  | 25.7                                              | 26.4 | 26.3 | 26.9 | 27.4 | 26.5                                    | 27.1 | 27.0 | 27.6 | 28.2 |
|                                                                                | 6H  | 26.6                                              | 27.1 | 27.2 | 27.7 | 28.4 | 27.3                                    | 27.9 | 27.9 | 28.4 | 29.1 |
|                                                                                | 8H  | 27.0                                              | 27.4 | 27.6 | 28.0 | 28.7 | 27.7                                    | 28.2 | 28.4 | 28.7 | 29.4 |
| Variation of the observer position for the luminaire distance S                |     |                                                   |      |      |      |      |                                         |      |      |      |      |
| S = 1.0H                                                                       |     | 0.1 / -0.1                                        |      |      |      |      | 0.1 / -0.1                              |      |      |      |      |
| S = 1.5H                                                                       |     | 0.1 / -0.2                                        |      |      |      |      | 0.1 / -0.2                              |      |      |      |      |
| S = 2.0H                                                                       |     | 0.3 / -0.5                                        |      |      |      |      | 0.4 / -0.5                              |      |      |      |      |
| CIE 117-1995. Corrected glare indices referring to 1423 lm total luminous flux |     |                                                   |      |      |      |      |                                         |      |      |      |      |