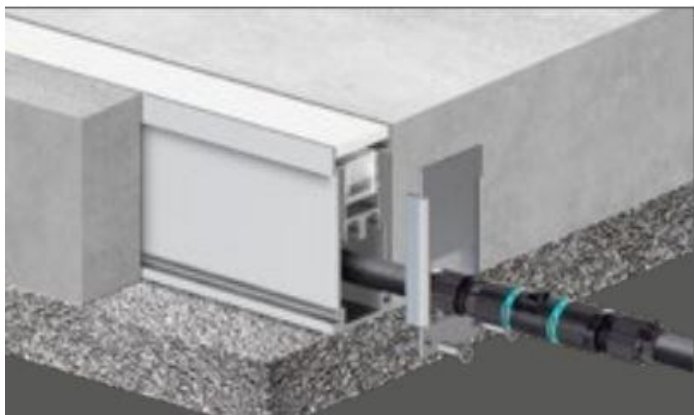


## SLED9050 EMBUTIR 5W 2700K 90 1m



Fluxo luminoso – 104 lm/m

Potência – 4,7 W/m

Intensidade pico – 34,5cd

CCT – 2603K

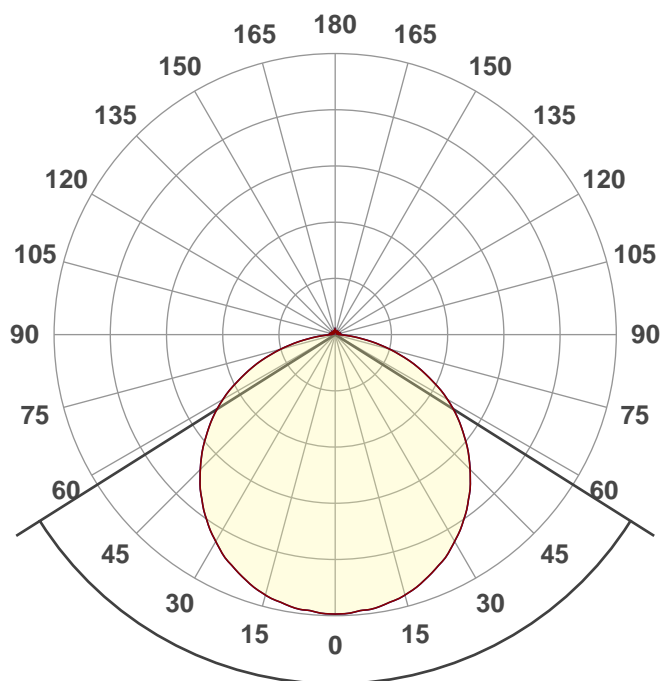


IRC – 96,4

Coordenada CIE 1931 – x- 0,459 y- 0,397

Data do ensaio

01/12/2022 16:59:33



Facho de abertura

**115,5°**

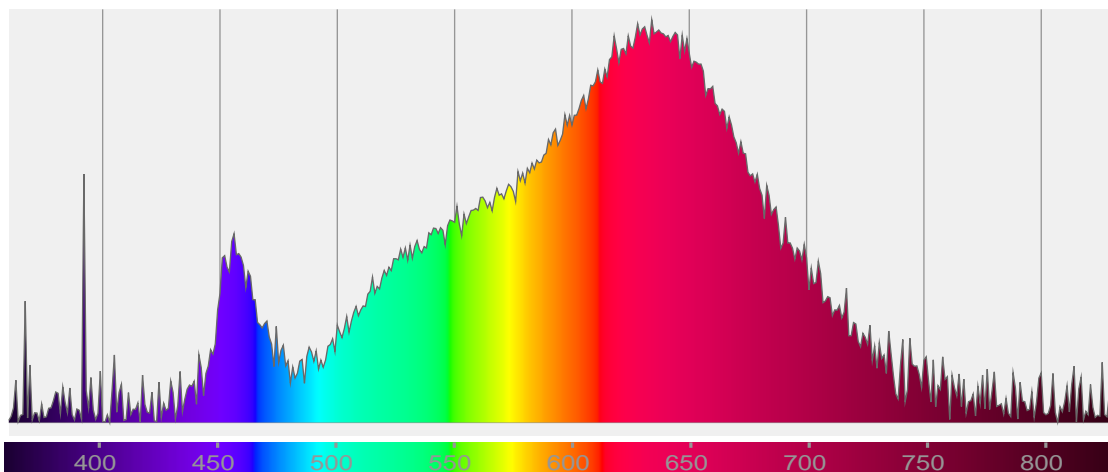
**Rf 92,1**

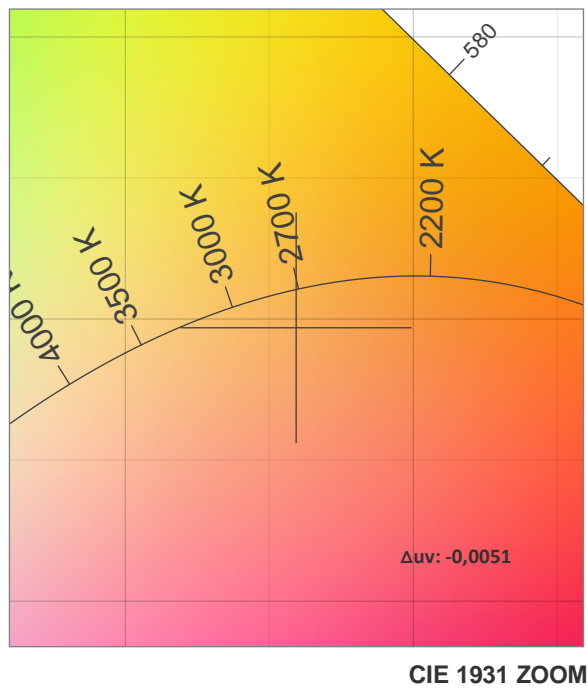
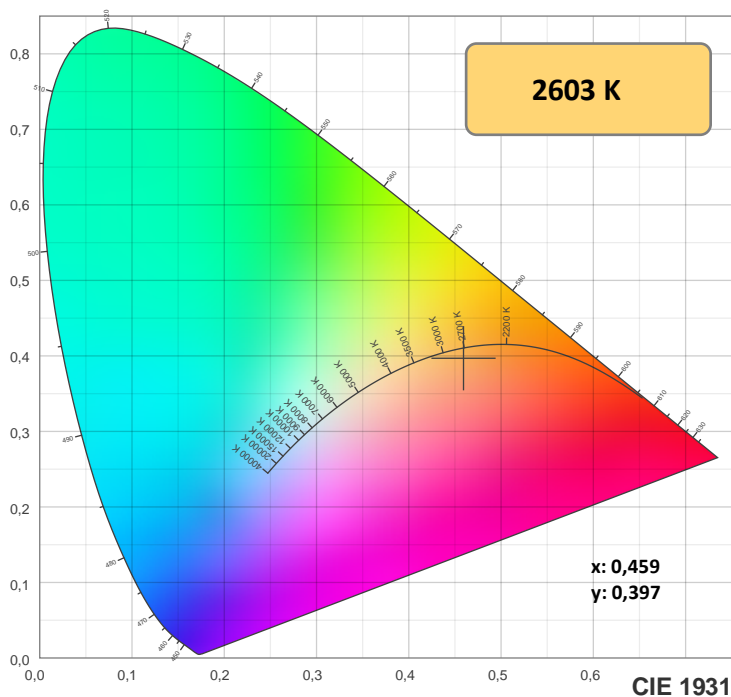
Fidelity index Rf

**Rg 104,2**

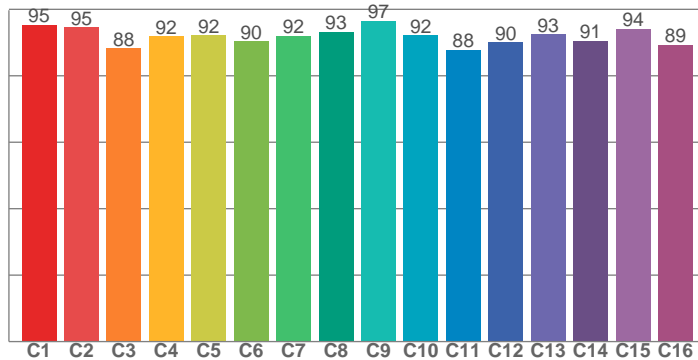
Gamut index Rg

|         |                | Shifts (%) |     |
|---------|----------------|------------|-----|
| Hue Bin | R <sub>f</sub> | Chroma     | Hue |
| 1       | 95             | -2%        | 0%  |
| 2       | 95             | -1%        | 3%  |
| 3       | 88             | 1%         | 6%  |
| 4       | 92             | 2%         | 4%  |
| 5       | 92             | 5%         | 4%  |
| 6       | 90             | 7%         | 0%  |
| 7       | 92             | 3%         | -4% |
| 8       | 93             | 1%         | -4% |
| 9       | 97             | -1%        | 0%  |
| 10      | 92             | -1%        | 5%  |
| 11      | 88             | 2%         | 8%  |
| 12      | 90             | 5%         | 3%  |
| 13      | 93             | 5%         | -3% |
| 14      | 91             | 6%         | -5% |
| 15      | 94             | 1%         | -3% |
| 16      | 89             | 1%         | -8% |

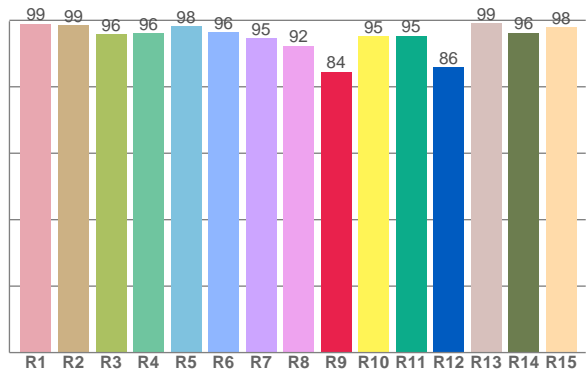




TM-30: 92,1



CRI: 96,4 (R1-R8)



CRIRA R1-R8 / CRIR R1-R15

| R1   | R2   | R3   | R4   | R5   | R6   | R7   | R8   | R9   | R10  | R11  | R12  | R13  | R14  | R15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 99,0 | 98,5 | 95,8 | 96,1 | 98,3 | 96,5 | 94,6 | 92,4 | 84,5 | 95,3 | 95,4 | 85,8 | 99,1 | 96,3 | 97,9 |

TM30 valores C. 16 valores extraídos dos 99.

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 95,4 | 94,5 | 88,2 | 91,8 | 92,2 | 90,4 | 91,9 | 93,2 | 96,6 | 92,1 | 87,9 | 90,1 | 92,5 | 90,5 | 94,1 | 89,3 |

## Parametros de cor

| Temperatura de cor | Índice de reprodução de cor | Reprodução de cor vermelho R9 | Color fidelity | Color gamut | Color quality scale | Coordenada de cor cie 1931 | Coordenada de cor cie 1931 | Coordenada de cor | Coordenada de cor | Color deviation from black body |
|--------------------|-----------------------------|-------------------------------|----------------|-------------|---------------------|----------------------------|----------------------------|-------------------|-------------------|---------------------------------|
| CCT                | IRC                         | CRI R9                        | TM30 Rf        | TM30 Rg     | CQS                 | x                          | y                          | u                 | v                 | $\Delta uv$                     |
| 2603 K             | 96,4                        | 84,5                          | 92,1           | 104,2       | 89,5                | 0,459                      | 0,397                      | 0,268             | 0,348             | -0,0051                         |

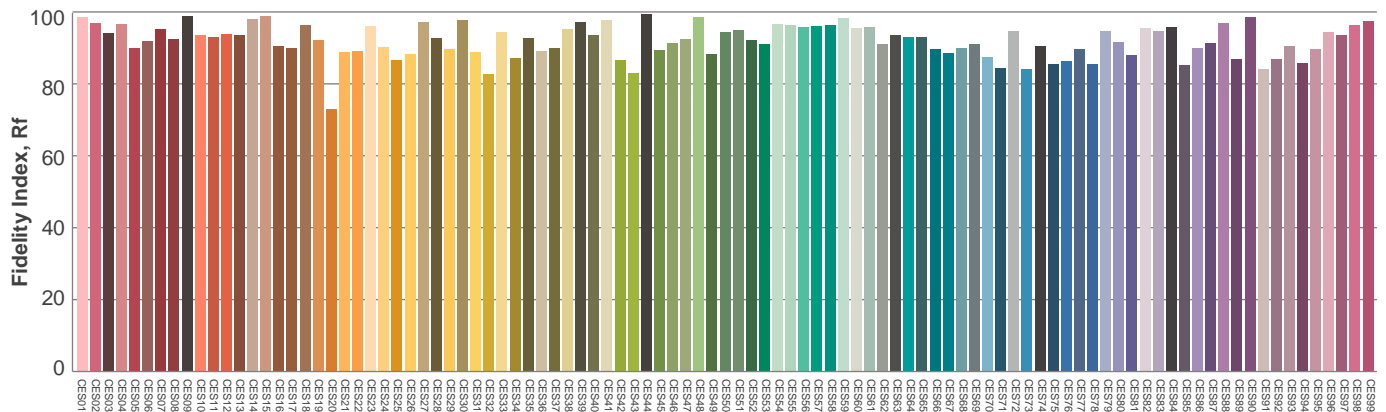
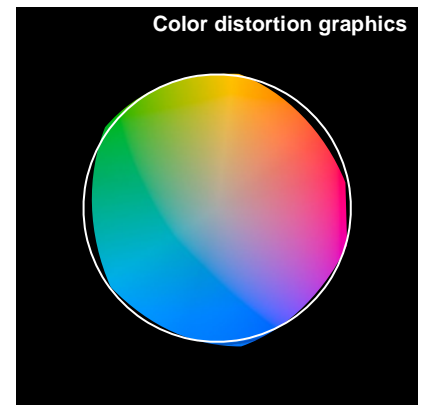
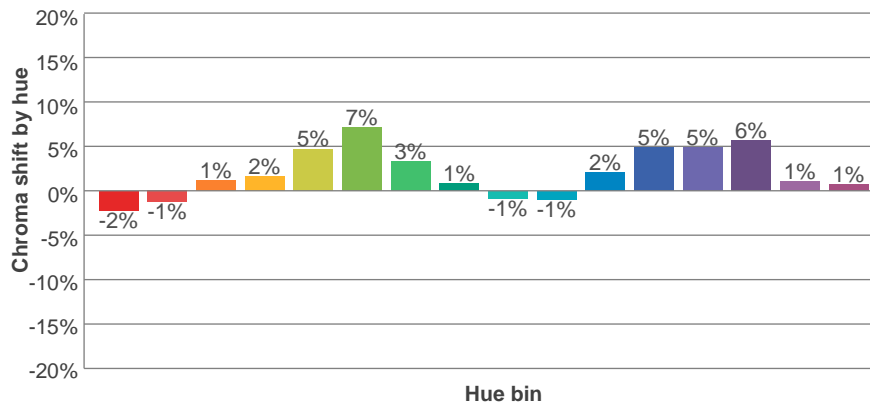
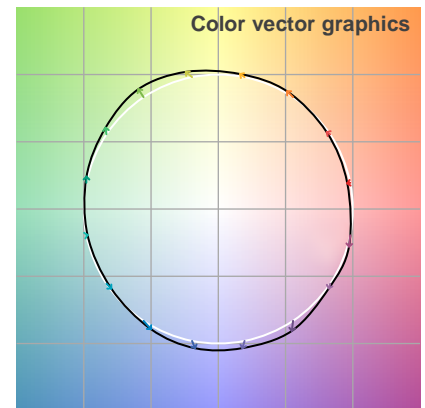
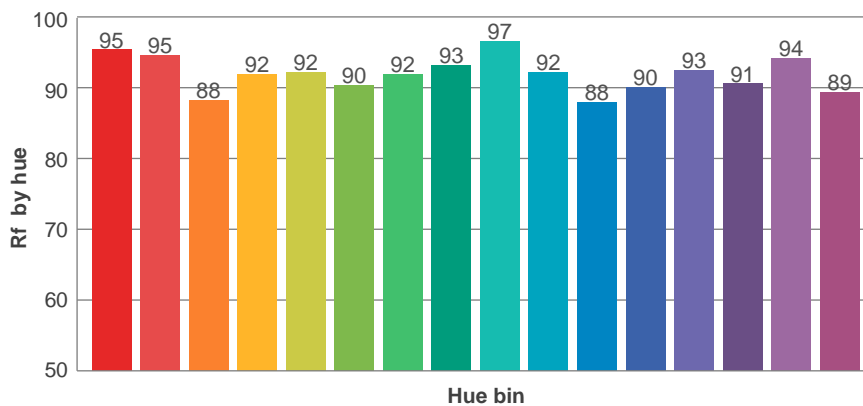
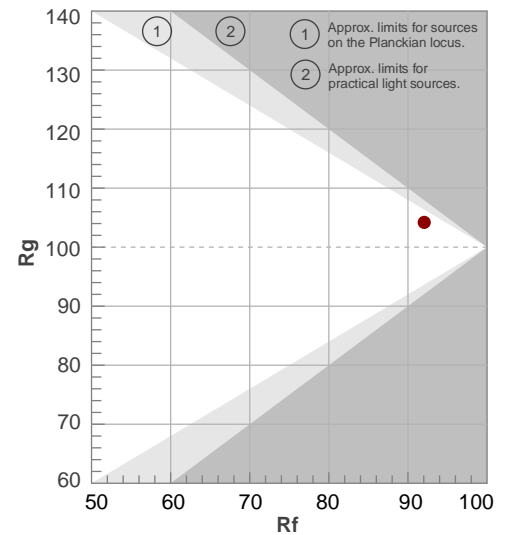
**Rf 92,1**

Fidelity index Rf

**Rg 104,2**

Gamut index Rg

| Hue Bin | R <sub>f</sub> | Shifts (%) |     |
|---------|----------------|------------|-----|
|         |                | Chroma     | Hue |
| 1       | 95             | -2%        | 0%  |
| 2       | 95             | -1%        | 3%  |
| 3       | 88             | 1%         | 6%  |
| 4       | 92             | 2%         | 4%  |
| 5       | 92             | 5%         | 4%  |
| 6       | 90             | 7%         | 0%  |
| 7       | 92             | 3%         | -4% |
| 8       | 93             | 1%         | -4% |
| 9       | 97             | -1%        | 0%  |
| 10      | 92             | -1%        | 5%  |
| 11      | 88             | 2%         | 8%  |
| 12      | 90             | 5%         | 3%  |
| 13      | 93             | 5%         | -3% |
| 14      | 91             | 6%         | -5% |
| 15      | 94             | 1%         | -3% |
| 16      | 89             | 1%         | -8% |



Avaliação todas as amostras de cores

Glare Evaluation According to UGR

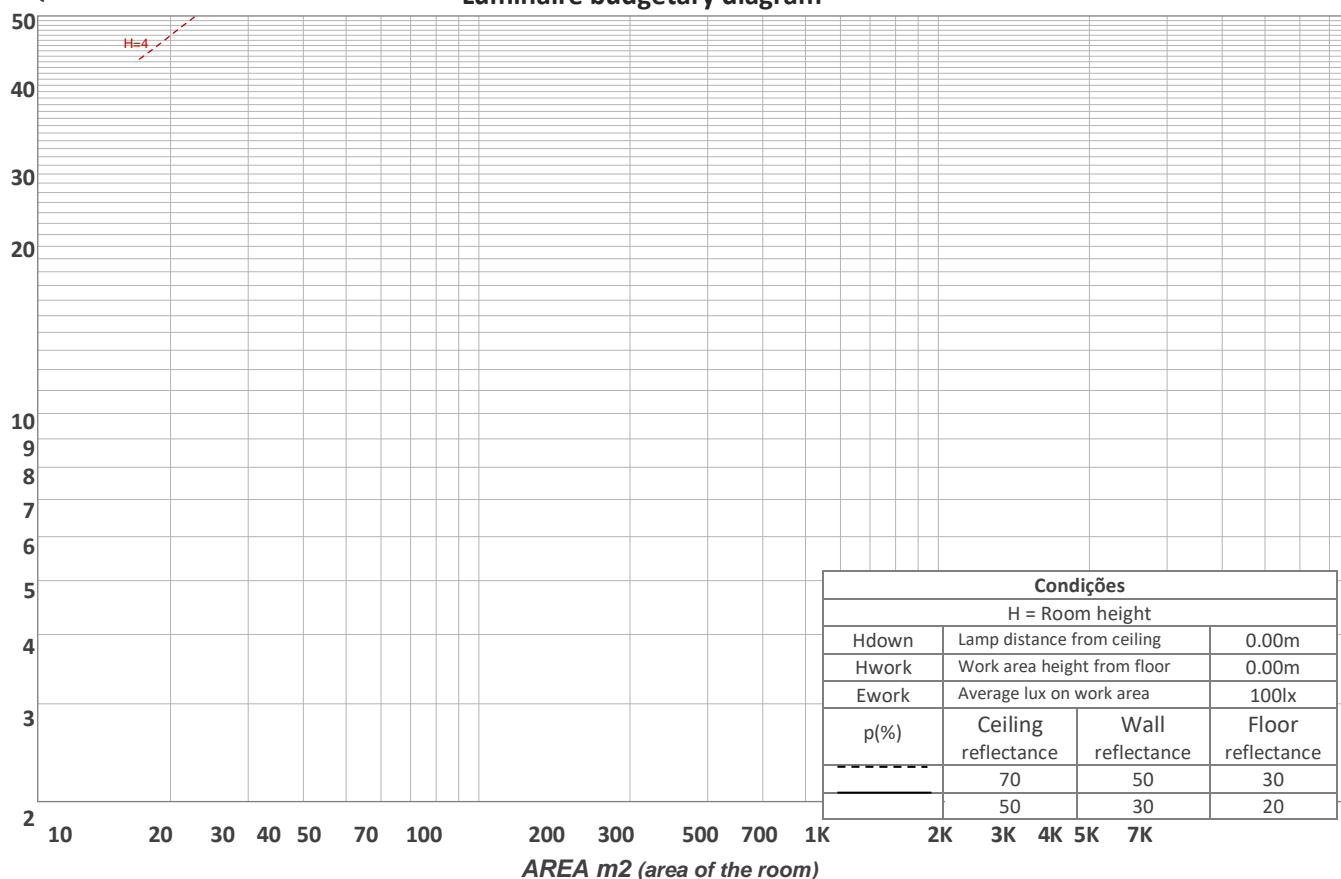
|                                                                 |     |                                                |      |      |      |      |                                         |      |      |      |      |
|-----------------------------------------------------------------|-----|------------------------------------------------|------|------|------|------|-----------------------------------------|------|------|------|------|
| 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  | 13,7                                           | 14,9 | 14,0 | 15,3 | 15,5 | 13,7                                    | 14,9 | 14,0 | 15,3 | 15,5 |
|                                                                 | 3H  | 15,2                                           | 16,4 | 15,6 | 16,8 | 17,0 | 15,2                                    | 16,4 | 15,6 | 16,8 | 17,0 |
|                                                                 | 4H  | 15,8                                           | 17,0 | 16,3 | 17,3 | 17,7 | 15,8                                    | 17,0 | 16,3 | 17,3 | 17,7 |
|                                                                 | 6H  | 16,3                                           | 17,4 | 16,7 | 17,7 | 18,1 | 16,3                                    | 17,4 | 16,7 | 17,7 | 18,1 |
|                                                                 | 8H  | 16,5                                           | 17,5 | 16,8 | 17,8 | 18,3 | 16,5                                    | 17,5 | 16,8 | 17,8 | 18,3 |
|                                                                 | 12H | 16,5                                           | 17,5 | 16,9 | 17,9 | 18,4 | 16,5                                    | 17,5 | 16,9 | 17,9 | 18,4 |
| 4H                                                              | 2H  | 14,3                                           | 15,5 | 14,8 | 15,8 | 16,1 | 14,3                                    | 15,5 | 14,8 | 15,8 | 16,1 |
|                                                                 | 3H  | 16,1                                           | 17,1 | 16,5 | 17,5 | 18,0 | 16,1                                    | 17,1 | 16,5 | 17,5 | 18,0 |
|                                                                 | 4H  | 16,8                                           | 17,7 | 17,3 | 18,2 | 18,8 | 16,8                                    | 17,7 | 17,3 | 18,2 | 18,8 |
|                                                                 | 6H  | 17,4                                           | 18,2 | 17,9 | 18,6 | 19,0 | 17,4                                    | 18,2 | 17,9 | 18,6 | 19,0 |
|                                                                 | 8H  | 17,5                                           | 18,3 | 18,1 | 18,7 | 19,2 | 17,5                                    | 18,3 | 18,1 | 18,7 | 19,2 |
|                                                                 | 12H | 17,6                                           | 18,3 | 18,2 | 18,8 | 19,3 | 17,6                                    | 18,3 | 18,2 | 18,8 | 19,3 |
| 8H                                                              | 4H  | 17,1                                           | 17,9 | 17,6 | 18,3 | 18,7 | 17,1                                    | 17,9 | 17,6 | 18,3 | 18,7 |
|                                                                 | 6H  | 17,8                                           | 18,4 | 18,3 | 18,9 | 19,5 | 17,8                                    | 18,4 | 18,3 | 18,9 | 19,5 |
|                                                                 | 8H  | 18,1                                           | 18,6 | 18,6 | 19,1 | 19,8 | 18,1                                    | 18,6 | 18,6 | 19,1 | 19,8 |
|                                                                 | 12H | 18,2                                           | 18,7 | 18,8 | 19,2 | 19,9 | 18,2                                    | 18,7 | 18,8 | 19,2 | 19,9 |
| 12H                                                             | 4H  | 17,1                                           | 17,8 | 17,6 | 18,2 | 18,7 | 17,1                                    | 17,8 | 17,6 | 18,2 | 18,7 |
|                                                                 | 6H  | 17,9                                           | 18,4 | 18,4 | 18,9 | 19,6 | 17,9                                    | 18,4 | 18,4 | 18,9 | 19,6 |
|                                                                 | 8H  | 18,1                                           | 18,6 | 18,8 | 19,1 | 19,8 | 18,1                                    | 18,6 | 18,8 | 19,1 | 19,8 |
| 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                                                        |     | 0,4 / -0,5                                     |      |      |      |      | 0,4 / -0,5                              |      |      |      |      |
| Standard table                                                  |     | n/a                                            |      |      |      |      | n/a                                     |      |      |      |      |
| Correction<br>summand                                           |     | n/a                                            |      |      |      |      | n/a                                     |      |      |      |      |
| Corrected glare indices referring to 104 lm total luminous flux |     |                                                |      |      |      |      |                                         |      |      |      |      |

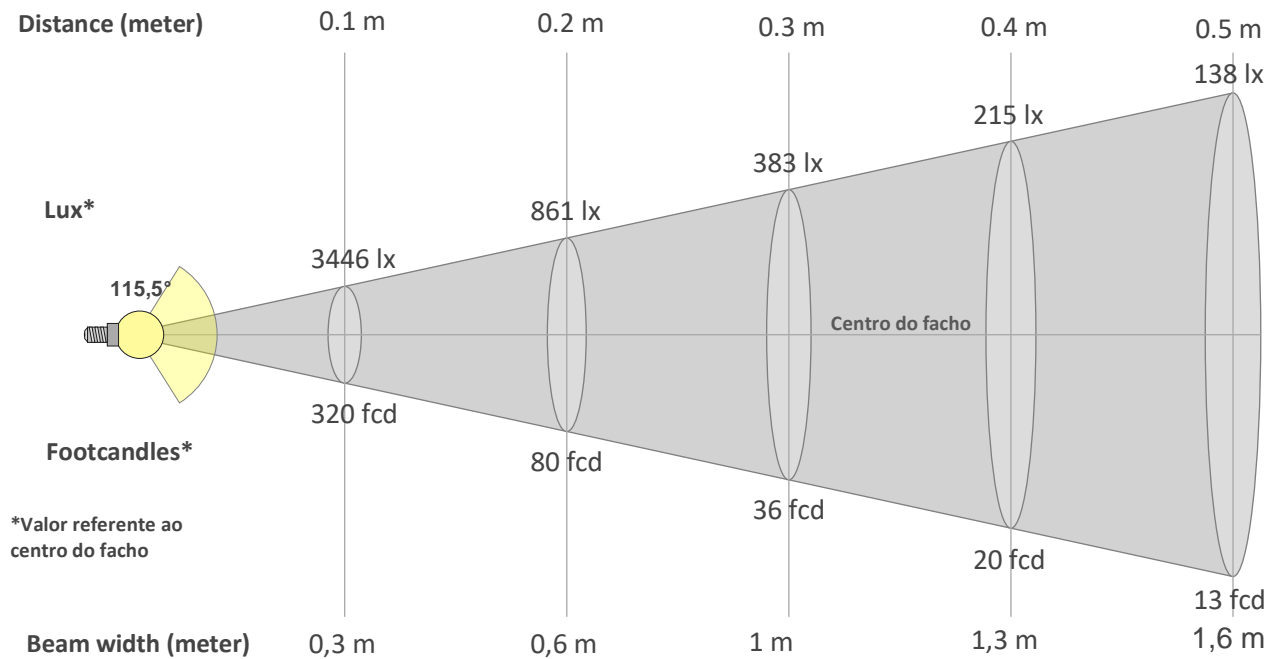
**Coeficiente de utilização**

| 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                   | 118                                                                                                      | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 110 | 110 | 110 | 104 | 104 | 104 | 100 | 100 | 100 | 97 |
| 1                   | 108                                                                                                      | 103 | 99  | 95  | 105 | 101 | 97  | 93  | 96  | 93  | 90  | 92  | 89  | 86  | 88  | 85  | 83  | 81 |
| 2                   | 98                                                                                                       | 90  | 83  | 77  | 95  | 88  | 81  | 76  | 84  | 78  | 74  | 80  | 75  | 72  | 77  | 73  | 70  | 67 |
| 3                   | 89                                                                                                       | 79  | 70  | 64  | 86  | 77  | 69  | 63  | 73  | 67  | 61  | 70  | 65  | 60  | 67  | 63  | 59  | 56 |
| 4                   | 82                                                                                                       | 69  | 61  | 54  | 79  | 68  | 60  | 53  | 65  | 58  | 52  | 62  | 56  | 51  | 60  | 55  | 50  | 48 |
| 5                   | 75                                                                                                       | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 58  | 51  | 45  | 56  | 49  | 44  | 54  | 48  | 44  | 41 |
| 6                   | 69                                                                                                       | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 38  | 36 |
| 7                   | 64                                                                                                       | 50  | 42  | 35  | 62  | 49  | 41  | 35  | 48  | 40  | 35  | 46  | 39  | 34  | 44  | 38  | 34  | 32 |
| 8                   | 60                                                                                                       | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 30  | 28 |
| 9                   | 56                                                                                                       | 42  | 34  | 28  | 54  | 41  | 34  | 28  | 40  | 33  | 28  | 39  | 32  | 28  | 38  | 32  | 27  | 25 |
| 10                  | 52                                                                                                       | 39  | 31  | 26  | 51  | 38  | 31  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23 |

**Quantidade de luminárias**

**Luminaire budgetary diagram**





### 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 |
| 34lx   | 9lx    | 4lx    | 2lx    | 1lx    | 1lx    | 1lx    | 1lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    |
| 3,2fcd | 0,8fcd | 0,4fcd | 0,2fcd | 0,1fcd | 0,1fcd | 0,1fcd | 0,1fcd | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   |

### 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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 34,5 | 34,2 | 33,9 | 33,2 | 32,2 | 31,0 | 29,5 | 27,7 | 25,7 | 23,5 | 21,2 | 18,7 | 16,0 | 13,0 | 10,0 | 7,0 | 4,0 | 1,6 | 0,5 | 0,4 |
| 100% | 99%  | 98%  | 96%  | 94%  | 90%  | 85%  | 80%  | 75%  | 68%  | 61%  | 54%  | 46%  | 38%  | 29%  | 20% | 12% | 5%  | 1%  | 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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 34,5 | 34,2 | 33,9 | 33,2 | 32,2 | 31,0 | 29,5 | 27,7 | 25,7 | 23,5 | 21,2 | 18,7 | 16,0 | 13,0 | 10,0 | 7,0 | 4,0 | 1,6 | 0,5 | 0,4 |
| 100% | 99%  | 98%  | 96%  | 94%  | 90%  | 85%  | 80%  | 75%  | 68%  | 61%  | 54%  | 46%  | 38%  | 29%  | 20% | 12% | 5%  | 1%  | 1%  |

### Intensities in 180° c-plane

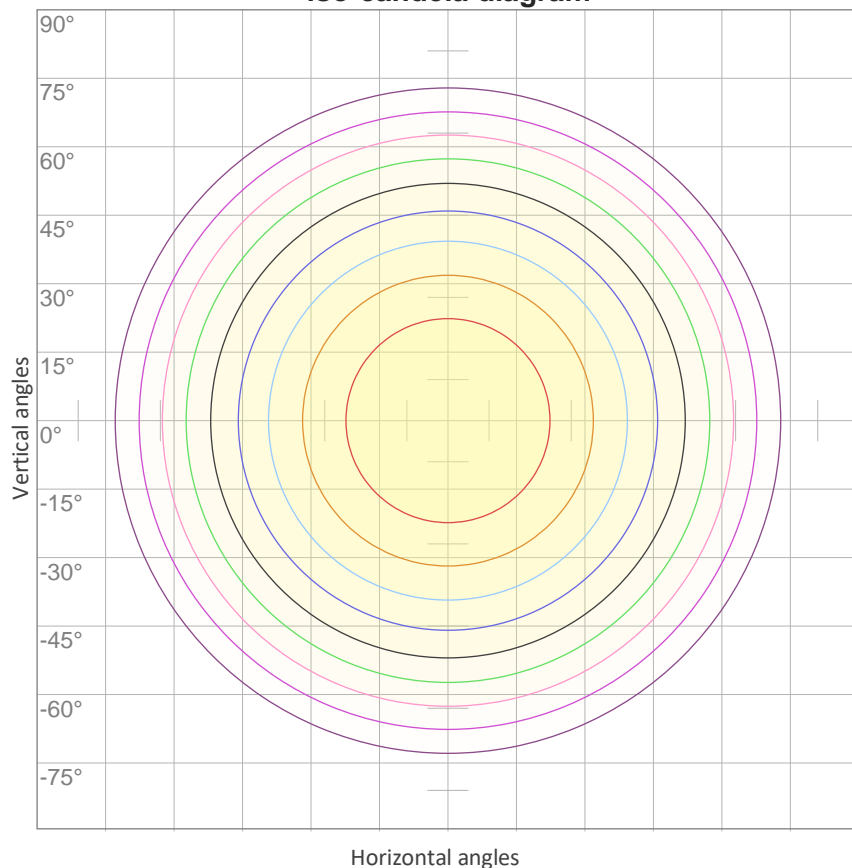
| 0°   | 5°   | 10°  | 15°  | 20°  | 25°  | 30°  | 35°  | 40°  | 45°  | 50°  | 55°  | 60°  | 65°  | 70°  | 75° | 80° | 85° | 90° | 95° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 34,5 | 34,2 | 33,9 | 33,2 | 32,2 | 31,0 | 29,5 | 27,7 | 25,7 | 23,5 | 21,2 | 18,7 | 16,0 | 13,0 | 10,0 | 7,0 | 4,0 | 1,6 | 0,5 | 0,4 |
| 100% | 99%  | 98%  | 96%  | 94%  | 90%  | 85%  | 80%  | 75%  | 68%  | 61%  | 54%  | 46%  | 38%  | 29%  | 20% | 12% | 5%  | 1%  | 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° |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 34,5 | 34,2 | 33,9 | 33,2 | 32,2 | 31,0 | 29,5 | 27,7 | 25,7 | 23,5 | 21,2 | 18,7 | 16,0 | 13,0 | 10,0 | 7,0 | 4,0 | 1,6 | 0,5 | 0,4 |
| 100% | 99%  | 98%  | 96%  | 94%  | 90%  | 85%  | 80%  | 75%  | 68%  | 61%  | 54%  | 46%  | 38%  | 29%  | 20% | 12% | 5%  | 1%  | 1%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 115,5°         | 162°            | 174,8°            | 76,0%                        | 51,3%                       |

**iso-candela diagram**



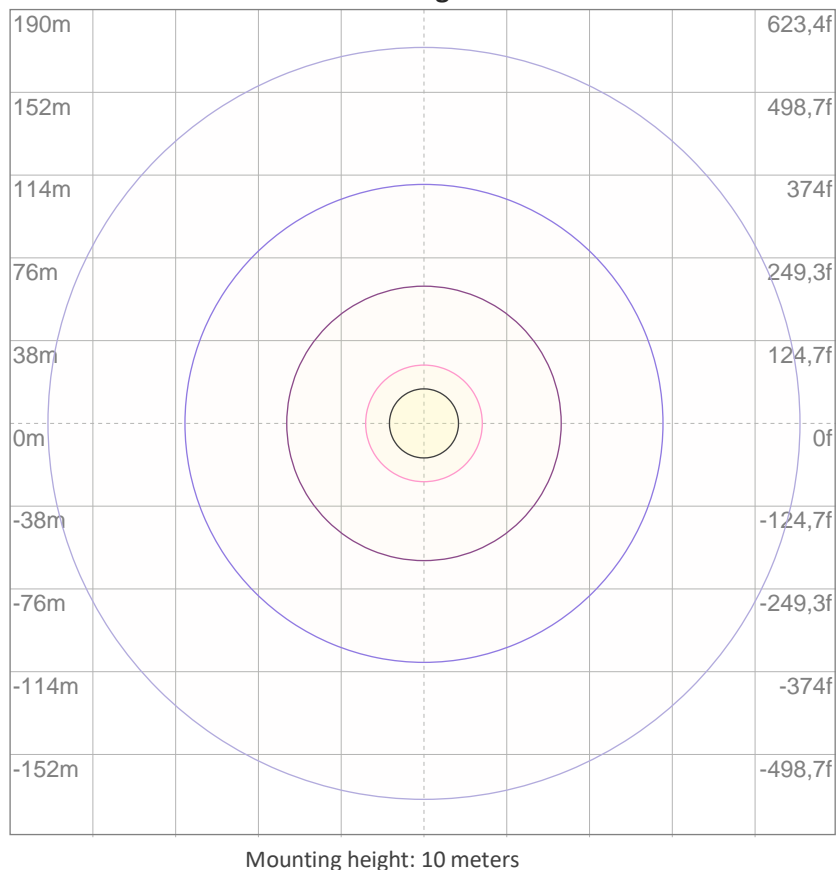
|     |       |
|-----|-------|
| 10% | 3 cd  |
| 20% | 7 cd  |
| 30% | 10 cd |
| 40% | 14 cd |
| 50% | 17 cd |
| 60% | 21 cd |
| 70% | 24 cd |
| 80% | 28 cd |
| 90% | 31 cd |

Conditions:

Number of c-planes: 16

Candela at center: 34 cd

**iso-lux diagram**



|     |          |
|-----|----------|
| 3%  | 10,3m lx |
| 5%  | 17,2m lx |
| 10% | 34,5m lx |
| 30% | 0,103 lx |
| 50% | 0,172 lx |

Conditions:

Number of c-planes: 16

Lux at center: 0,345 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

**Potência**

|  |  |  |  |  |  |
|--|--|--|--|--|--|
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**Vttagem: 24,0 V**  
**Corrente: 0,196 A**  
**Frequência: 0 Hz**  
**FP: 0,99**

**THD**



**THD corrente: n/a**  
**THD tensão: n/a**