

# TÚNEIS DAS EIRAS

---

**Data** 02/11/2020

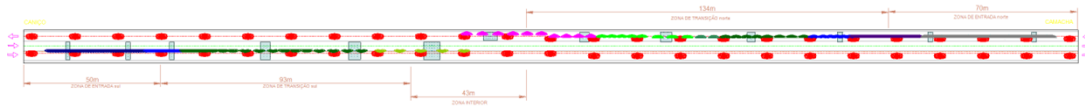
**Application** Ulysse 3.4.8

**Description** REG. DIURNO

## Índice

|       |                                                                                                     |    |
|-------|-----------------------------------------------------------------------------------------------------|----|
| 1.    | Vistas .....                                                                                        | 4  |
| 1.1.  | Snapshot item .....                                                                                 | 4  |
| 2.    | Equipamentos.....                                                                                   | 5  |
| 2.1.  | GL2 Compact 2 32 LEDs 500mA NW740 740 Plano(a), Vidro extra claro, Liso 5103 Simétrico 33632S ..... | 5  |
| 2.2.  | TFLEX COMBI 5303 160 LH351C 800mA NW 740 408W 455092 Flat glass - 230V EF .....                     | 5  |
| 2.3.  | TFLEX COMBI 5303 160 LH351C 500mA NW 740 248W 455092 Flat glass - 230V EF .....                     | 6  |
| 2.4.  | TFLEX COMBI 5303 120 LH351C 500mA NW 740 186W 455092 Flat glass - 230V EF .....                     | 6  |
| 2.5.  | TFLEX COMBI 5303 80 LH351C 500mA NW 740 128W 455092 Flat glass - 230V EF .....                      | 6  |
| 2.6.  | GL2 Compact 3 48 LEDs 500mA NW740 740 Plano(a), Vidro extra claro, Liso 5103 336322 .....           | 7  |
| 2.7.  | TFLEX COMBI 5303 80 LH351C 350mA NW 740 85W 455092 Flat glass - 230V EF .....                       | 7  |
| 2.8.  | TFLEX COMBI 5303 80 LH351C 600mA NW 740 151W 455092 Flat glass - 230V EF .....                      | 8  |
| 2.9.  | TFLEX COMBI 5303 160 LH351C 600mA NW 740 302W 455092 Flat glass - 230V EF .....                     | 8  |
| 2.10. | TFLEX COMBI 5303 160 LH351C 700mA NW 740 356W 455092 Flat glass - 230V EF .....                     | 8  |
| 3.    | Resultados .....                                                                                    | 9  |
| 3.1.  | Resultado Malha .....                                                                               | 9  |
| 4.    | Potência consumida .....                                                                            | 11 |
| 4.1.  | DIURNO .....                                                                                        | 11 |
| 5.    | DIURNO .....                                                                                        | 12 |
| 5.1.  | Descrição Matriz .....                                                                              | 12 |
| 5.2.  | Grupos de luminárias.....                                                                           | 12 |
| 5.3.  | Z. ENTRADA SUL.1 - Normal.....                                                                      | 14 |
| 5.4.  | Luminância - Z. ENTRADA SUL.1 - R3007 .....                                                         | 15 |
| 5.5.  | Z. ENTRADA SUL.2 - Normal.....                                                                      | 17 |
| 5.6.  | Luminância - Z. ENTRADA SUL.2 - R3007 .....                                                         | 18 |
| 5.7.  | Z. TRANSIÇÃO SUL - 1 - Normal.....                                                                  | 20 |
| 5.8.  | Luminância - Z. TRANSIÇÃO SUL - 1 - R3007 .....                                                     | 21 |
| 5.9.  | Z. TRANSIÇÃO SUL - 2 - Normal.....                                                                  | 23 |
| 5.10. | Luminância - Z. TRANSIÇÃO SUL - 2 - R3007 .....                                                     | 24 |
| 5.11. | Z. TRANSIÇÃO SUL - 3 - Normal.....                                                                  | 26 |
| 5.12. | Luminância - Z. TRANSIÇÃO SUL - 3 - R3007 .....                                                     | 27 |
| 5.13. | Z. INTERIOR SUL - Normal.....                                                                       | 29 |
| 5.14. | Luminância - Z. INTERIOR SUL - R3007 .....                                                          | 30 |
| 5.15. | Z. INTERIOR NORTE - Normal.....                                                                     | 32 |
| 5.16. | Z. INTERIOR NORTE - Luminance RTable - Relative 1.....                                              | 33 |
| 5.17. | Z. TRANSIÇÃO NORTE - 4 - Normal .....                                                               | 34 |
| 5.18. | Z. TRANSIÇÃO NORTE - 4 - Luminance RTable - Relative 1 .....                                        | 35 |
| 5.19. | Z. TRANSIÇÃO NORTE - 3 - Normal .....                                                               | 36 |

|       |                                                              |    |
|-------|--------------------------------------------------------------|----|
| 5.20. | Z. TRANSIÇÃO NORTE - 3 - Luminance RTable - Relative 1 ..... | 37 |
| 5.21. | Z. TRANSIÇÃO NORTE - 2 - Normal .....                        | 38 |
| 5.22. | Z. TRANSIÇÃO NORTE - 2 - Luminance RTable - Relative 1 ..... | 39 |
| 5.23. | Z. TRANSIÇÃO NORTE - 1 - Normal .....                        | 40 |
| 5.24. | Z. TRANSIÇÃO NORTE - 1 - Luminance RTable - Relative 1 ..... | 41 |
| 5.25. | Z. ENTRADA NORTE_2 - Normal.....                             | 42 |
| 5.26. | Z. ENTRADA NORTE_2 - Luminance RTable - Relative 1 .....     | 43 |
| 5.27. | Z. ENTRADA NORTE_1 - Normal.....                             | 44 |
| 5.28. | Z. ENTRADA NORTE_1 - Luminance RTable - Relative 1 .....     | 45 |



## 2. Equipamentos

### 2.1. GL2 Compact 2 32 LEDs 500mA NW740 740 Plano(a), Vidro extra claro, Liso 5103 Simétrico 33632S

**Tipo** GL2 Compact 2

**Reflector** 5103

**Fonte** 32 LEDs 500mA NW740 740

**Protector** Plano(a), Vidro extra claro, Liso

**Regulação** Simétrico

**Fluxo nominal** 7,847 klm

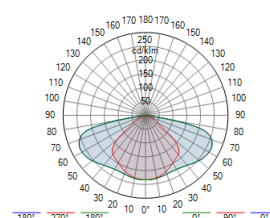
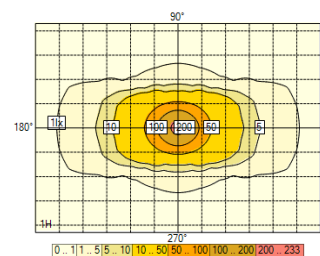
**Potência** 50,0 W

**FM** 0,85

**Matriz** 33632S

**Fluxo luminária** 6,619 klm

**Eficácia** 132 lm/W



### 2.2. TFLEX COMBI 5303 160 LH351C 800mA NW 740 408W 455092 Flat glass - 230V EF

**Tipo** TFLEX COMBI 5303 Flat glass - 160 LH351C@800mA ...

**Fonte** 160 LH351C@800mA NW 740 230V 00-59-015

**Fluxo nominal** 59,523 klm

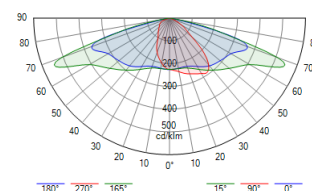
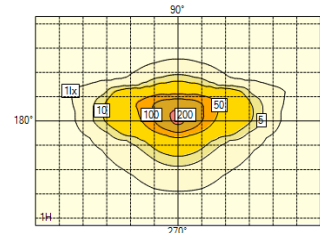
**Potência** 408,0 W

**FM** 0,85

**Matriz** TFLEX COMBI 5303 160 LH351C 800mA NW ...

**Fluxo luminária** 50,418 klm

**Eficácia** 124 lm/W



### 2.3. TFLEX COMBI 5303 160 LH351C 500mA NW 740 248W 455092 Flat glass - 230V EF

**Tipo** TFLEX COMBI 5303 Flat glass - 160 LH351C@500mA ...

**Fonte** 160 LH351C@500mA NW 740 230V 00-46-453

**Fluxo nominal** 41,283 klm

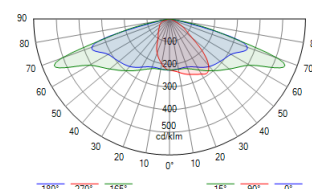
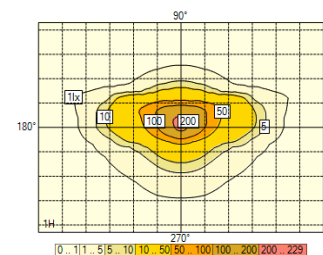
**Potência** 248,0 W

**FM** 0,85

**Matriz** TFLEX COMBI 5303 160 LH351C 500mA NW ...

**Fluxo luminária** 34,968 klm

**Eficácia** 141 lm/W



### 2.4. TFLEX COMBI 5303 120 LH351C 500mA NW 740 186W 455092 Flat glass - 230V EF

**Tipo** TFLEX COMBI 5303 Flat glass - 120 LH351C@500mA ...

**Fonte** 120 LH351C@500mA NW 740 230V 00-38-223

**Fluxo nominal** 30,962 klm

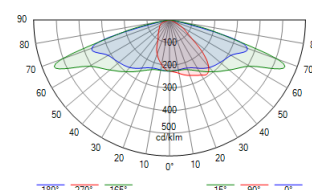
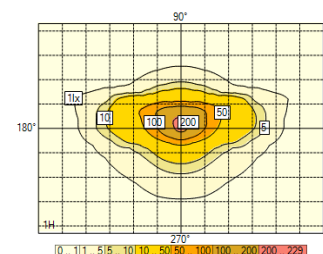
**Potência** 186,0 W

**FM** 0,85

**Matriz** TFLEX COMBI 5303 120 LH351C 500mA NW ...

**Fluxo luminária** 26,226 klm

**Eficácia** 141 lm/W



### 2.5. TFLEX COMBI 5303 80 LH351C 500mA NW 740 128W 455092 Flat glass - 230V EF

**Tipo** TFLEX COMBI 5303 Flat glass - 80 LH351C@500mA ...

**Fonte** 80 LH351C@500mA NW 740 230V 00-24-983

**Fluxo nominal** 20,641 klm

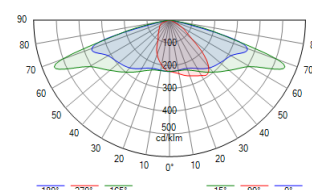
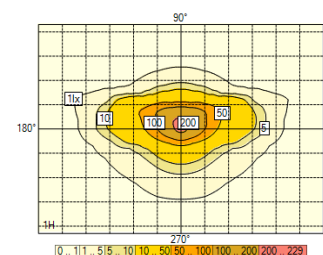
**Potência** 128,0 W

**FM** 0,85

**Matriz** TFLEX COMBI 5303 80 LH351C 500mA NW ...

**Fluxo luminária** 17,484 klm

**Eficácia** 137 lm/W



## 2.6. GL2 Compact 3 48 LEDs 500mA NW740 740 Plano(a), Vidro extra claro, Liso 5103 336322

**Tipo** GL2 Compact 3

**Reflector** 5103

**Fonte** 48 LEDs 500mA NW740 740

**Protector** Plano(a), Vidro extra claro, Liso

**Fluxo nominal** 11,771 klm

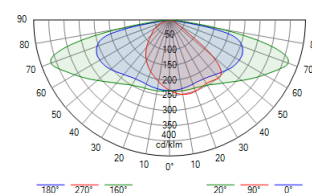
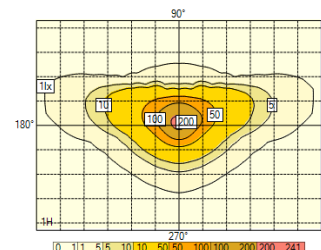
**Potência** 74,0 W

**FM** 0,85

**Matriz** 336322

**Fluxo luminária** 9,965 klm

**Eficácia** 135 lm/W



## 2.7. TFLEX COMBI 5303 80 LH351C 350mA NW 740 85W 455092 Flat glass - 230V EF

**Tipo** TFLEX COMBI 5303 Flat glass - 80 LH351C@350mA ...

**Fonte** 80 LH351C@350mA NW 740 230V 00-38-174

**Fluxo nominal** 15,200 klm

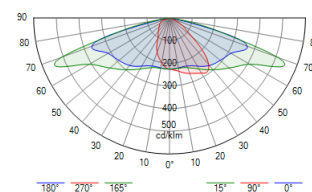
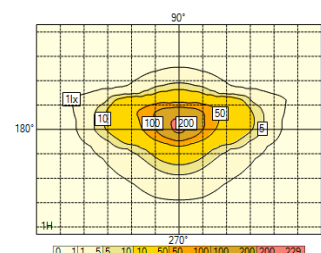
**Potência** 85,0 W

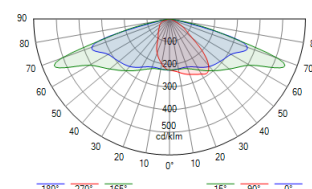
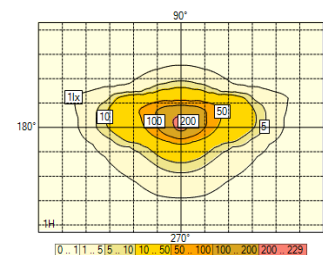
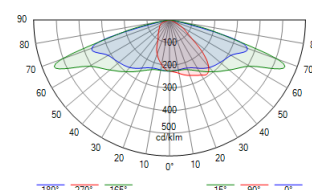
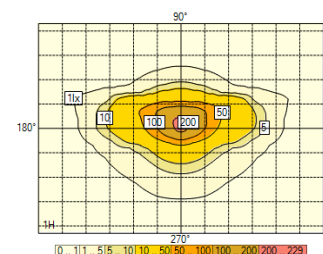
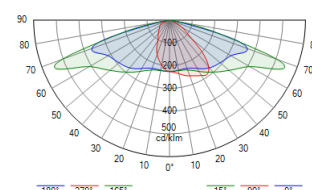
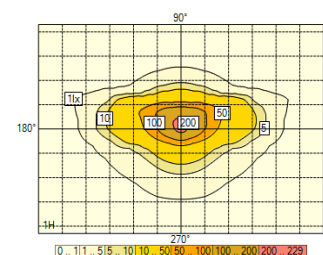
**FM** 0,85

**Matriz** TFLEX COMBI 5303 80 LH351C 350mA NW ...

**Fluxo luminária** 12,875 klm

**Eficácia** 151 lm/W



**2.8. TFLEX COMBI 5303 80 LH351C 600mA NW 740 151W 455092 Flat glass - 230V EF****Tipo** TFLEX COMBI 5303 Flat glass - 80 LH351C@600mA ...**Fonte** 80 LH351C@600mA NW 740 230V 00-46-453**Fluxo nominal** 23,955 klm**Potência** 151,0 W**FM** 0,85**Matriz** TFLEX COMBI 5303 80 LH351C 600mA NW ...**Fluxo luminária** 20,291 klm**Eficácia** 134 lm/W**2.9. TFLEX COMBI 5303 160 LH351C 600mA NW 740 302W 455092 Flat glass - 230V EF****Tipo** TFLEX COMBI 5303 Flat glass - 160 LH351C@600mA ...**Fonte** 160 LH351C@600mA NW 740 230V 00-46-453**Fluxo nominal** 47,910 klm**Potência** 302,0 W**FM** 0,85**Matriz** TFLEX COMBI 5303 160 LH351C 600mA NW ...**Fluxo luminária** 40,581 klm**Eficácia** 134 lm/W**2.10. TFLEX COMBI 5303 160 LH351C 700mA NW 740 356W 455092 Flat glass - 230V EF****Tipo** TFLEX COMBI 5303 Flat glass - 160 LH351C@700mA ...**Fonte** 160 LH351C@700mA NW 740 230V 00-26-610**Fluxo nominal** 53,990 klm**Potência** 356,0 W**FM** 0,85**Matriz** TFLEX COMBI 5303 160 LH351C 700mA NW ...**Fluxo luminária** 45,731 klm**Eficácia** 128 lm/W

### 3. Resultados

#### 3.1. Resultado Malha

##### Z. ENTRADA SUL.1

| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| DIURNO                | 2820,1          | 58             | 48             | 1639,6   | 3401,5   | N/A |

| 2. Luminância - RTable - R3007             | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
|--------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| DIURNO - Observador 1 (-44,50; 2,80; 1,50) | 208,99             | 47             | 33             | 98,97          | 303,78         | 98 %   |
| DIURNO - Observador 2 (-44,50; 5,80; 1,50) | 213,83             | 41             | 29             | 88,24          | 306,89         | 97 %   |

##### Z. ENTRADA SUL.2

| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| DIURNO                | 3060,8          | 59             | 49             | 1801,7   | 3644,6   | N/A |

| 2. Luminância - RTable - R3007             | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
|--------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| DIURNO - Observador 1 (-22,24; 2,80; 1,50) | 145,74             | 52             | 39             | 75,93          | 194,55         | 94 %   |
| DIURNO - Observador 2 (-22,24; 5,80; 1,50) | 147,33             | 49             | 37             | 72,36          | 196,61         | 95 %   |

##### Z. TRANSIÇÃO SUL - 1

| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| DIURNO                | 1341,2          | 57             | 46             | 763,6    | 1663,8   | N/A |

| 2. Luminância - RTable - R3007            | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
|-------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| DIURNO - Observador 1 (-6,04; 2,80; 1,50) | 66,99              | 52             | 39             | 34,68          | 88,15          | 91 %   |
| DIURNO - Observador 2 (-6,04; 5,80; 1,50) | 67,58              | 49             | 37             | 33,03          | 90,14          | 92 %   |

##### Z. TRANSIÇÃO SUL - 2

| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| DIURNO                | 397,1           | 61             | 51             | 240,4    | 467,8    | N/A |

| 2. Luminância - RTable - R3007            | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
|-------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| DIURNO - Observador 1 (27,59; 2,80; 1,50) | 28,04              | 51             | 36             | 14,17          | 39,06          | 98 %   |
| DIURNO - Observador 2 (27,59; 5,80; 1,50) | 28,46              | 45             | 33             | 12,93          | 39,53          | 99 %   |

##### Z. TRANSIÇÃO SUL - 3

| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| DIURNO                | 310,8           | 60             | 49             | 185,5    | 382,2    | N/A |

| 2. Luminância - RTable - R3007            | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
|-------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| DIURNO - Observador 1 (60,14; 2,80; 1,50) | 17,39              | 52             | 38             | 9,03           | 23,64          | 90 %   |
| DIURNO - Observador 2 (60,14; 5,80; 1,50) | 17,42              | 48             | 35             | 8,44           | 23,99          | 91 %   |

**Z. INTERIOR SUL**

| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| DIURNO                | 185,2           | 61             | 49             | 112,2    | 226,9    | N/A |

| 2. Luminância - RTable - R3007            | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
|-------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| DIURNO - Observador 1 (88,00; 2,80; 1,50) | 11,88              | 48             | 38             | 5,74           | 15,17          | 87 %   |
| DIURNO - Observador 2 (88,00; 5,80; 1,50) | 11,33              | 48             | 36             | 5,42           | 15,08          | 89 %   |

**Z. INTERIOR NORTE**

| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| DIURNO                | 191,0           | 89             | 83             | 170,8    | 206,6    | N/A |

| 2. Luminância - RTable - R3007             | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
|--------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| DIURNO - Observador 1 (235,11; 7,90; 1,50) | 12,05              | 78             | 72             | 9,43           | 13,15          | 88 %   |

**Z. TRANSIÇÃO NORTE - 4**

| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| DIURNO                | 223,3           | 80             | 69             | 179,2    | 258,7    | N/A |

| 2. Luminância - RTable - R3007             | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
|--------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| DIURNO - Observador 1 (269,19; 7,89; 1,50) | 15,21              | 86             | 73             | 13,13          | 17,90          | 99 %   |

**Z. TRANSIÇÃO NORTE - 3**

| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| DIURNO                | 233,9           | 79             | 69             | 185,1    | 269,5    | N/A |

| 2. Luminância - RTable - R3007             | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
|--------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| DIURNO - Observador 1 (299,70; 7,90; 1,50) | 20,63              | 74             | 62             | 15,21          | 24,51          | 97 %   |

**Z. TRANSIÇÃO NORTE - 2**

|                       |                 |                |                |          |          |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
| DIURNO                | 520,2           | 82             | 75             | 428,1    | 570,7    | N/A |

|                                            |                    |                |                |                |                |        |
|--------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| 2. Luminância - RTable - R3007             | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
| DIURNO - Observador 1 (330,61; 7,87; 1,50) | 33,88              | 73             | 61             | 24,90          | 40,81          | 94 %   |

Z. TRANSIÇÃO NORTE - 1

|                       |                 |                |                |          |          |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
| DIURNO                | 1270,6          | 79             | 69             | 1000,0   | 1447,4   | N/A |

|                                            |                    |                |                |                |                |        |
|--------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| 2. Luminância - RTable - R3007             | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
| DIURNO - Observador 1 (362,98; 7,90; 1,50) | 68,35              | 75             | 63             | 50,93          | 81,02          | 91 %   |

Z. ENTRADA NORTE\_2

|                       |                 |                |                |          |          |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
| DIURNO                | 3455,9          | 80             | 71             | 2759,0   | 3868,4   | N/A |

|                                            |                    |                |                |                |                |        |
|--------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| 2. Luminância - RTable - R3007             | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
| DIURNO - Observador 1 (396,23; 7,90; 1,50) | 206,16             | 76             | 65             | 156,17         | 241,16         | 95 %   |

Z. ENTRADA NORTE\_1

|                       |                 |                |                |          |          |     |
|-----------------------|-----------------|----------------|----------------|----------|----------|-----|
| 1. Iluminância Normal | Med (A)<br>(lx) | Min/Med<br>(%) | Min/Max<br>(%) | Min (lx) | Max (lx) |     |
| DIURNO                | 3701,0          | 81             | 73             | 2988,4   | 4117,3   | N/A |

|                                            |                    |                |                |                |                |        |
|--------------------------------------------|--------------------|----------------|----------------|----------------|----------------|--------|
| 2. Luminância - RTable - R3007             | Med (A)<br>(cd/m²) | Min/Med<br>(%) | Min/Max<br>(%) | Min<br>(cd/m²) | Max<br>(cd/m²) | UL (%) |
| DIURNO - Observador 1 (434,69; 7,90; 1,50) | 306,15             | 75             | 63             | 228,44         | 363,60         | 98 %   |

4. Potência consumida

4.1. DIURNO

| equipamento                                                                                   | Current<br>[mA] | Qt. | Dimming | Potência /<br>Equipamen<br>to | Total   |
|-----------------------------------------------------------------------------------------------|-----------------|-----|---------|-------------------------------|---------|
| GL2 Compact 2 32 LEDs 500mA NW740 740 Plano(a), Vidro extra claro, Liso 5103 Simétrico 33632S | 500             | 50  | 100 %   | 50 W                          | 2510 W  |
| GL2 Compact 3 48 LEDs 500mA NW740 740 Plano(a), Vidro extra claro, Liso 5103 336322           | 500             | 10  | 100 %   | 74 W                          | 740 W   |
| TFLEX COMBI 5303 120 LH351C 500mA NW 740 186W 455092 Flat glass - 230V EF                     | 0               | 25  | 100 %   | 186 W                         | 4650 W  |
| TFLEX COMBI 5303 160 LH351C 500mA NW 740 248W 455092 Flat glass - 230V EF                     | 0               | 13  | 100 %   | 248 W                         | 3224 W  |
| TFLEX COMBI 5303 160 LH351C 600mA NW 740 302W 455092 Flat glass - 230V EF                     | 0               | 18  | 100 %   | 302 W                         | 5436 W  |
| TFLEX COMBI 5303 160 LH351C 700mA NW 740 356W 455092 Flat glass - 230V EF                     | 0               | 60  | 100 %   | 356 W                         | 21360 W |

|                                                                           |   |    |       |       |         |
|---------------------------------------------------------------------------|---|----|-------|-------|---------|
| TFLEX COMBI 5303 160 LH351C 800mA NW 740 408W 455092 Flat glass - 230V EF | 0 | 39 | 100 % | 408 W | 15912 W |
| TFLEX COMBI 5303 80 LH351C 350mA NW 740 85W 455092 Flat glass - 230V EF   | 0 | 8  | 100 % | 85 W  | 680 W   |
| TFLEX COMBI 5303 80 LH351C 500mA NW 740 128W 455092 Flat glass - 230V EF  | 0 | 5  | 100 % | 128 W | 640 W   |
| TFLEX COMBI 5303 80 LH351C 600mA NW 740 151W 455092 Flat glass - 230V EF  | 0 | 2  | 100 % | 151 W | 302 W   |

## 5. DIURNO

### 5.1. Descrição Matriz

| Ph. color                                                                           | Descrição                                                                                     | Current [mA] | Fluxo nominal [klm] | Fluxo luminária [klm] | Potência [W] | Eficácia [lm/W] | FM    | Altura [m]                          | Equipamento                                                                         |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------|---------------------|-----------------------|--------------|-----------------|-------|-------------------------------------|-------------------------------------------------------------------------------------|
|    | GL2 Compact 3 48 LEDs 500mA NW740 740 Plano(a), Vidro extra claro, Liso 5103 336322           | 500          | 11,771              | 9,965                 | 74,0         | 135             | 0,850 | 6 x 6,40<br>4 x 6,60                |  |
|    | GL2 Compact 2 32 LEDs 500mA NW740 740 Plano(a), Vidro extra claro, Liso 5103 Simétrico 336325 | 500          | 7,847               | 6,619                 | 50,2         | 132             | 0,850 | 12 x 6,40<br>13 x 6,60<br>25 x 7,00 |  |
|    | TFLEX COMBI 5303 120 LH351C 500mA NW 740 186W 455092 Flat glass - 230V EF                     |              | 30,962              | 26,226                | 186,0        | 141             | 0,850 | 8 x 6,60<br>17 x 7,30               |                                                                                     |
|    | TFLEX COMBI 5303 160 LH351C 500mA NW 740 248W 455092 Flat glass - 230V EF                     |              | 41,283              | 34,968                | 248,0        | 141             | 0,850 | 6 x 6,60<br>7 x 7,30                |                                                                                     |
|    | TFLEX COMBI 5303 160 LH351C 600mA NW 740 302W 455092 Flat glass - 230V EF                     |              | 47,910              | 40,581                | 302,0        | 134             | 0,850 | 18 x 6,60                           |                                                                                     |
|   | TFLEX COMBI 5303 160 LH351C 700mA NW 740 356W 455092 Flat glass - 230V EF                     |              | 53,990              | 45,731                | 356,0        | 128             | 0,850 | 60 x 6,60                           |                                                                                     |
|  | TFLEX COMBI 5303 160 LH351C 800mA NW 740 408W 455092 Flat glass - 230V EF                     |              | 59,523              | 50,418                | 408,0        | 124             | 0,850 | 39 x 7,30                           |                                                                                     |
|  | TFLEX COMBI 5303 80 LH351C 350mA NW 740 85W 455092 Flat glass - 230V EF                       |              | 15,200              | 12,875                | 85,0         | 151             | 0,850 | 8 x 6,60                            |                                                                                     |
|  | TFLEX COMBI 5303 80 LH351C 500mA NW 740 128W 455092 Flat glass - 230V EF                      |              | 20,641              | 17,484                | 128,0        | 137             | 0,850 | 5 x 7,30                            |                                                                                     |
|  | TFLEX COMBI 5303 80 LH351C 600mA NW 740 151W 455092 Flat glass - 230V EF                      |              | 23,955              | 20,291                | 151,0        | 134             | 0,850 | 2 x 6,60                            |                                                                                     |

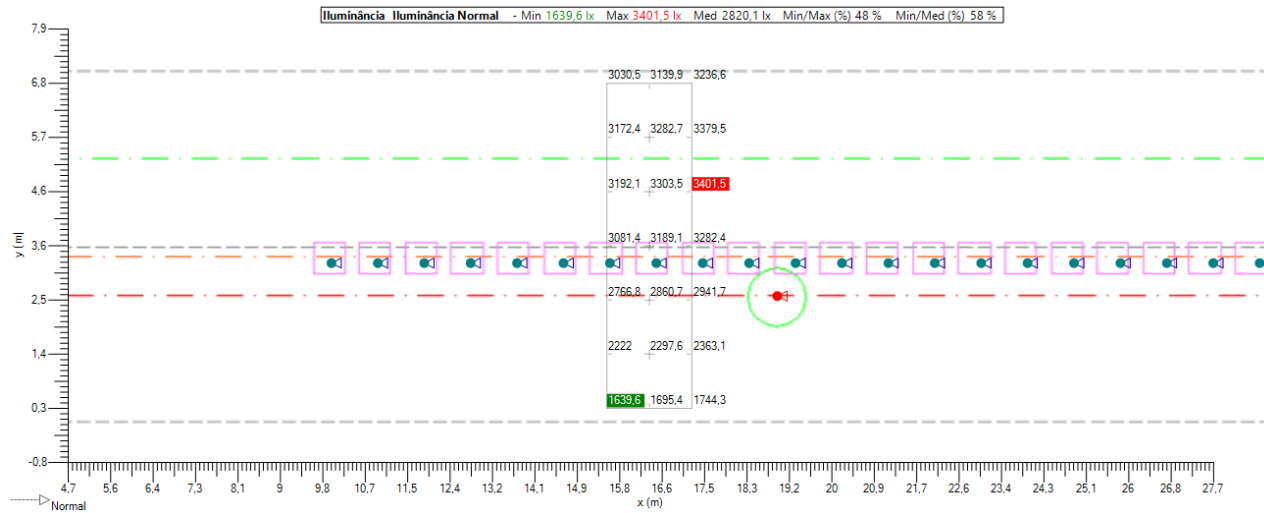
### 5.2. Grupos de luminárias

| Linear                              |                                                                                     |    |         |       |       |                      |        |          |         |         |          |                  |                |         |       |       |
|-------------------------------------|-------------------------------------------------------------------------------------|----|---------|-------|-------|----------------------|--------|----------|---------|---------|----------|------------------|----------------|---------|-------|-------|
|                                     | Color                                                                               | N° | Posição |       |       | Luminária            |        |          |         |         | Dimensão |                  |                | Rotação |       |       |
|                                     |                                                                                     |    | X [m]   | Y [m] | Z [m] | Nome                 | Az [°] | Incl [°] | Rot [°] | Dim [%] | Nº de    | Espaçoamento [m] | Dim. Total [m] | X [°]   | Y [°] | Z [°] |
| <input checked="" type="checkbox"/> |  | 1  | 3,00    | 8,84  | 6,40  | REG. BASE_norte      | 0,0    | 0,0      | 0,0     | 100     | 12       | 16,00            | 176,00         | 0,0     | 0,0   | 0,0   |
| <input checked="" type="checkbox"/> |  | 2  | 194,91  | 8,00  | 6,60  | REG. BASE_norte (1)  | 0,0    | 0,0      | 0,0     | 100     | 13       | 16,00            | 192,00         | 0,0     | 0,0   | 0,0   |
| <input checked="" type="checkbox"/> |  | 3  | 2,91    | 2,55  | 7,00  | REG. BASE_sul        | 0,0    | 0,0      | 0,0     | 100     | 13       | 16,00            | 192,00         | 0,0     | 0,0   | 0,0   |
| <input checked="" type="checkbox"/> |  | 4  | 210,99  | 1,68  | 7,00  | REG. BASE_sul (1)    | 0,0    | 0,0      | 0,0     | 100     | 12       | 16,00            | 176,00         | 0,0     | 0,0   | 0,0   |
| <input checked="" type="checkbox"/> |  | 5  | 321,63  | 9,20  | 6,60  | Z. ENTRADA NORTE     | 180,0  | 0,0      | 0,0     | 100     | 9        | 1,17             | 9,36           | 0,0     | 0,0   | 0,0   |
| <input checked="" type="checkbox"/> |  | 6  | 333,97  | 9,22  | 6,60  | Z. ENTRADA NORTE (1) | 180,0  | 0,0      | 0,0     | 100     | 7        | 0,77             | 4,62           | 0,0     | 0,0   | 0,0   |
| <input checked="" type="checkbox"/> |  | 7  | 339,44  | 9,20  | 6,60  | Z. ENTRADA NORTE (2) | 180,0  | 0,0      | 0,0     | 100     | 20       | 0,77             | 14,63          | 0,0     | 0,0   | 0,0   |

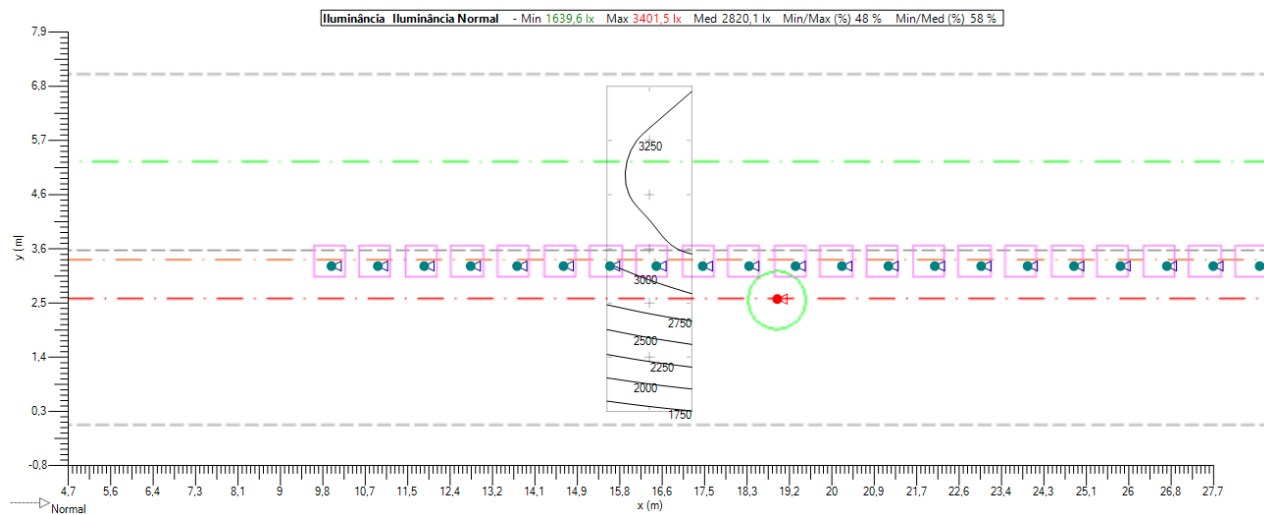
|                                     |                                                                                     |    |        |       |      |                        |       |     |     |     |    |      |       |     |     |     |
|-------------------------------------|-------------------------------------------------------------------------------------|----|--------|-------|------|------------------------|-------|-----|-----|-----|----|------|-------|-----|-----|-----|
| <input checked="" type="checkbox"/> |    | 8  | 355,03 | 9,21  | 6,60 | Z. ENTRADA NORTE (3)   | 180,0 | 0,0 | 0,0 | 100 | 21 | 0,78 | 15,60 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 9  | 371,42 | 9,20  | 6,60 | Z. ENTRADA NORTE (4)   | 180,0 | 0,0 | 0,0 | 100 | 12 | 0,78 | 8,58  | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 10 | 9,98   | 3,21  | 7,30 | Z. ENTRADA SUL         | 0,0   | 0,0 | 0,0 | 100 | 39 | 0,93 | 35,34 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 11 | 46,49  | 3,21  | 7,30 | Z. ENTRADA SUL (1)     | 0,0   | 0,0 | 0,0 | 100 | 3  | 1,60 | 3,20  | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 12 | 163,90 | 10,30 | 6,40 | Z. INTERIOR NORTE      | 180,0 | 0,0 | 0,0 | 100 | 3  | 5,80 | 11,60 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 13 | 180,99 | 10,32 | 6,40 | Z. INTERIOR NORTE (1)  | 180,0 | 0,0 | 0,0 | 100 | 3  | 5,30 | 10,60 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 14 | 146,90 | 3,16  | 7,30 | Z. INTERIOR SUL        | 0,0   | 0,0 | 0,0 | 100 | 3  | 8,00 | 16,00 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 15 | 196,32 | 9,36  | 6,60 | Z. TRANSIÇÃO NORTE     | 180,0 | 0,0 | 0,0 | 100 | 4  | 4,50 | 13,50 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 16 | 213,91 | 9,31  | 6,60 | Z. TRANSIÇÃO NORTE (1) | 180,0 | 0,0 | 0,0 | 100 | 5  | 3,70 | 14,80 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 17 | 234,52 | 9,08  | 6,60 | Z. TRANSIÇÃO NORTE (2) | 180,0 | 0,0 | 0,0 | 100 | 3  | 5,50 | 11,00 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 18 | 250,50 | 9,06  | 6,60 | Z. TRANSIÇÃO NORTE (3) | 180,0 | 0,0 | 0,0 | 100 | 2  | 4,80 | 4,80  | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 19 | 259,66 | 9,14  | 6,60 | Z. TRANSIÇÃO NORTE (4) | 180,0 | 0,0 | 0,0 | 100 | 4  | 3,90 | 11,70 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 20 | 275,09 | 9,20  | 6,60 | Z. TRANSIÇÃO NORTE (5) | 180,0 | 0,0 | 0,0 | 100 | 4  | 4,50 | 13,50 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |    | 21 | 292,27 | 9,19  | 6,60 | Z. TRANSIÇÃO NORTE (6) | 180,0 | 0,0 | 0,0 | 100 | 2  | 3,50 | 3,50  | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |  | 22 | 298,49 | 9,17  | 6,60 | Z. TRANSIÇÃO NORTE (7) | 180,0 | 0,0 | 0,0 | 100 | 4  | 2,40 | 7,20  | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |  | 23 | 307,21 | 9,23  | 6,60 | Z. TRANSIÇÃO NORTE (8) | 180,0 | 0,0 | 0,0 | 100 | 9  | 1,62 | 12,96 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |  | 24 | 51,54  | 3,22  | 7,30 | Z. TRANSIÇÃO SUL       | 0,0   | 0,0 | 0,0 | 100 | 4  | 2,00 | 6,00  | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |  | 25 | 59,75  | 3,23  | 7,30 | Z. TRANSIÇÃO SUL (1)   | 0,0   | 0,0 | 0,0 | 100 | 4  | 2,40 | 7,20  | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |  | 26 | 69,99  | 3,20  | 7,30 | Z. TRANSIÇÃO SUL (2)   | 0,0   | 0,0 | 0,0 | 100 | 3  | 3,70 | 7,40  | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |  | 27 | 81,98  | 3,17  | 7,30 | Z. TRANSIÇÃO SUL (3)   | 0,0   | 0,0 | 0,0 | 100 | 3  | 5,15 | 10,30 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |  | 28 | 96,48  | 3,23  | 7,30 | Z. TRANSIÇÃO SUL (4)   | 0,0   | 0,0 | 0,0 | 100 | 3  | 4,10 | 8,20  | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |  | 29 | 109,36 | 3,16  | 7,30 | Z. TRANSIÇÃO SUL (5)   | 0,0   | 0,0 | 0,0 | 100 | 4  | 5,20 | 15,60 | 0,0 | 0,0 | 0,0 |
| <input checked="" type="checkbox"/> |  | 30 | 131,97 | 3,16  | 7,30 | Z. TRANSIÇÃO SUL (6)   | 0,0   | 0,0 | 0,0 | 100 | 2  | 7,20 | 7,20  | 0,0 | 0,0 | 0,0 |

5.3. Z. ENTRADA SUL.1 - Normal

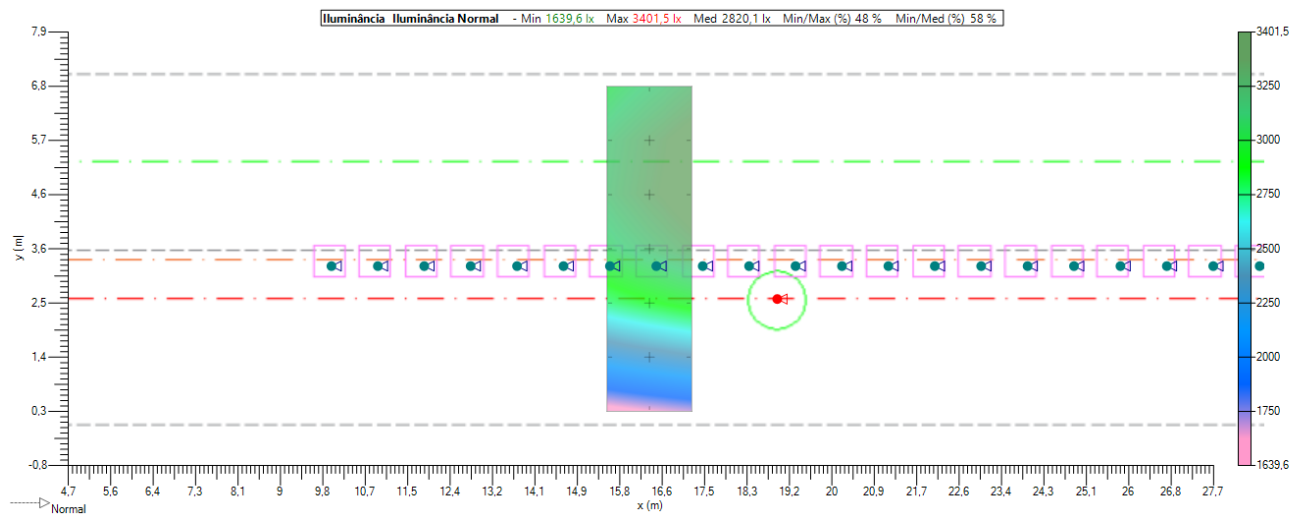
Resultados



Isolevel

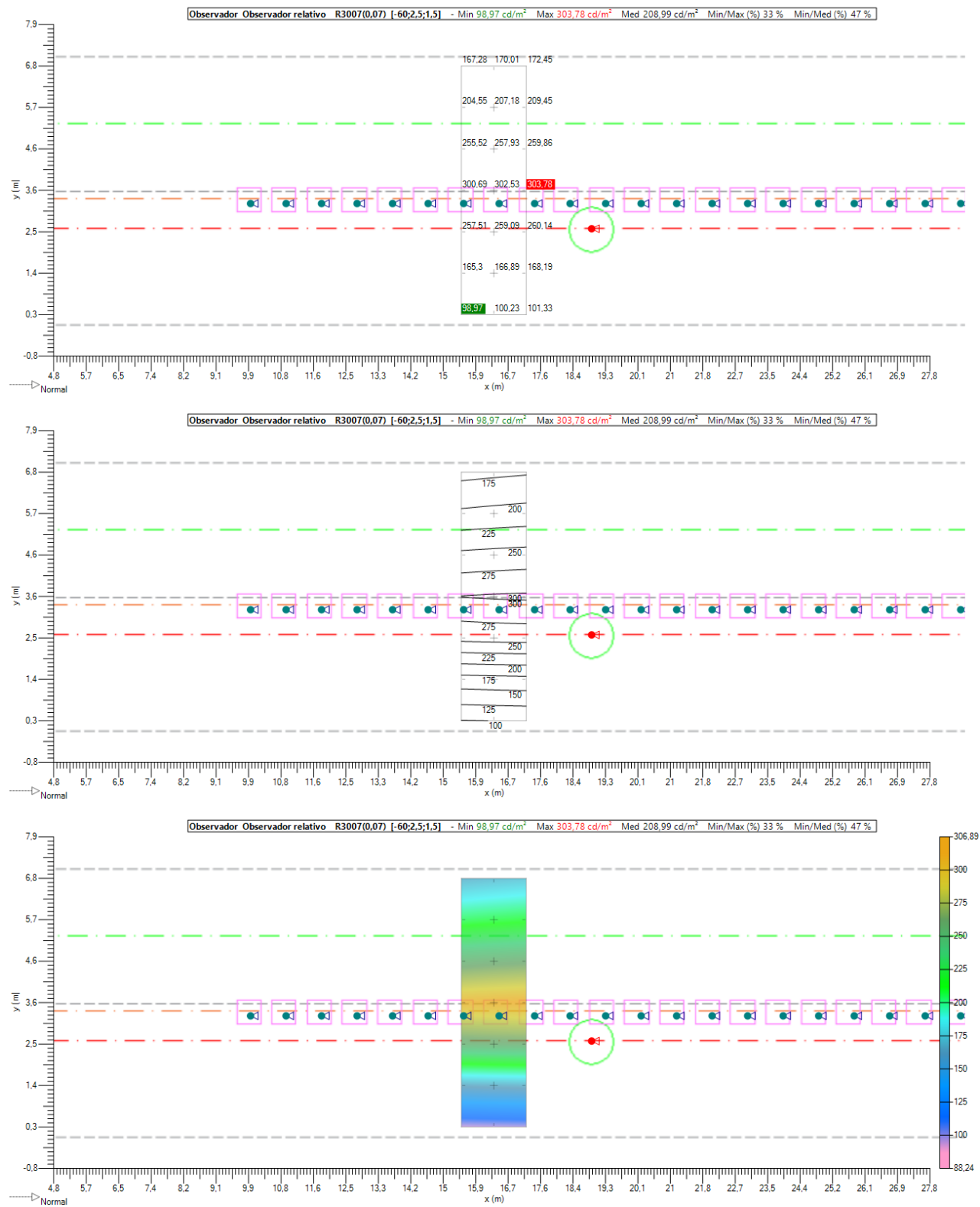


Sombreado

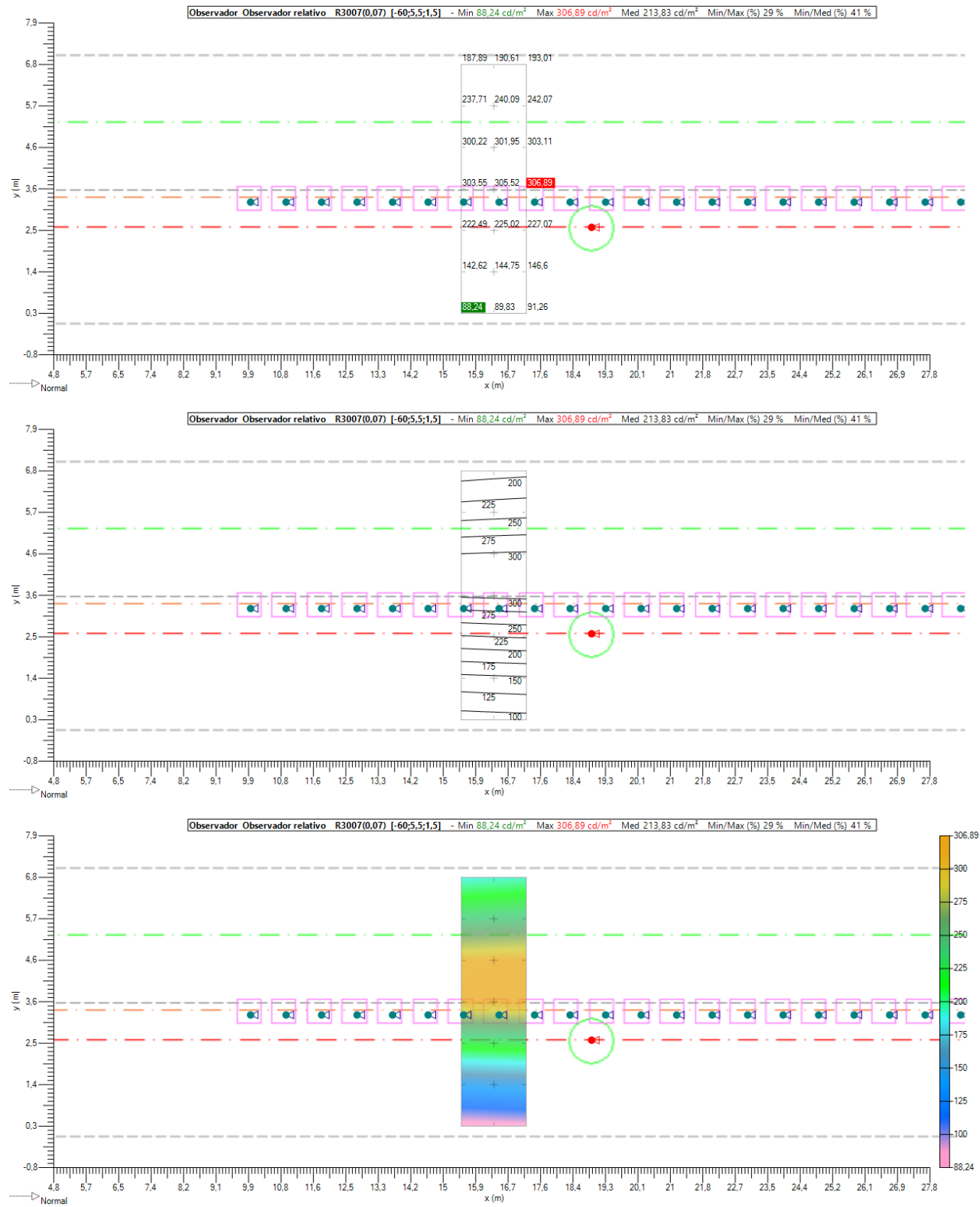


5.4. Luminância - Z. ENTRADA SUL.1 - R3007

Z. ENTRADA SUL.1 - Relative 1

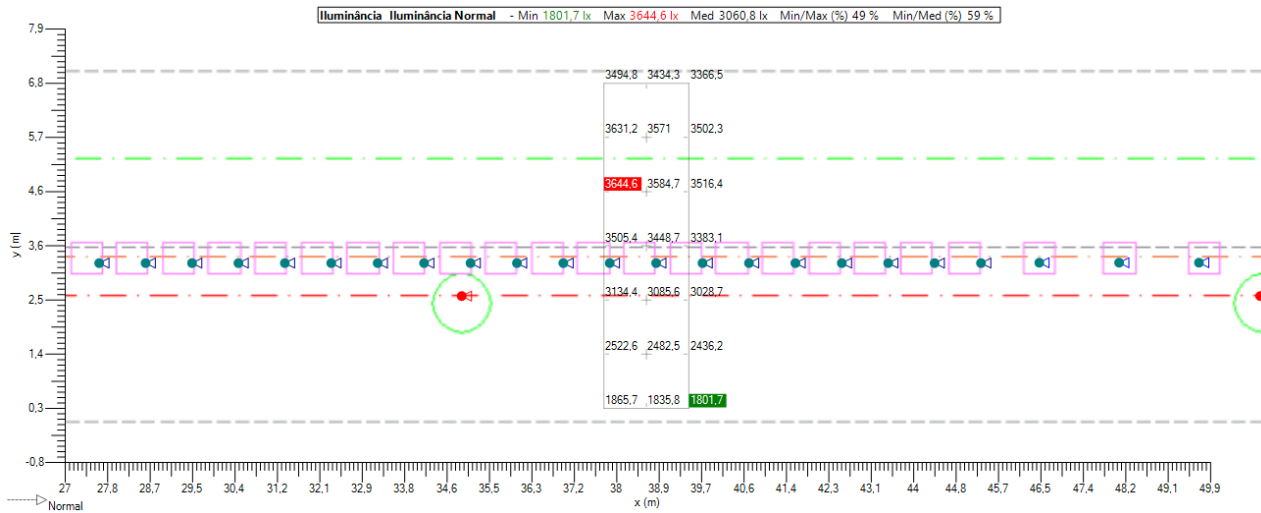


Z. ENTRADA SUL.1 - Relative 2

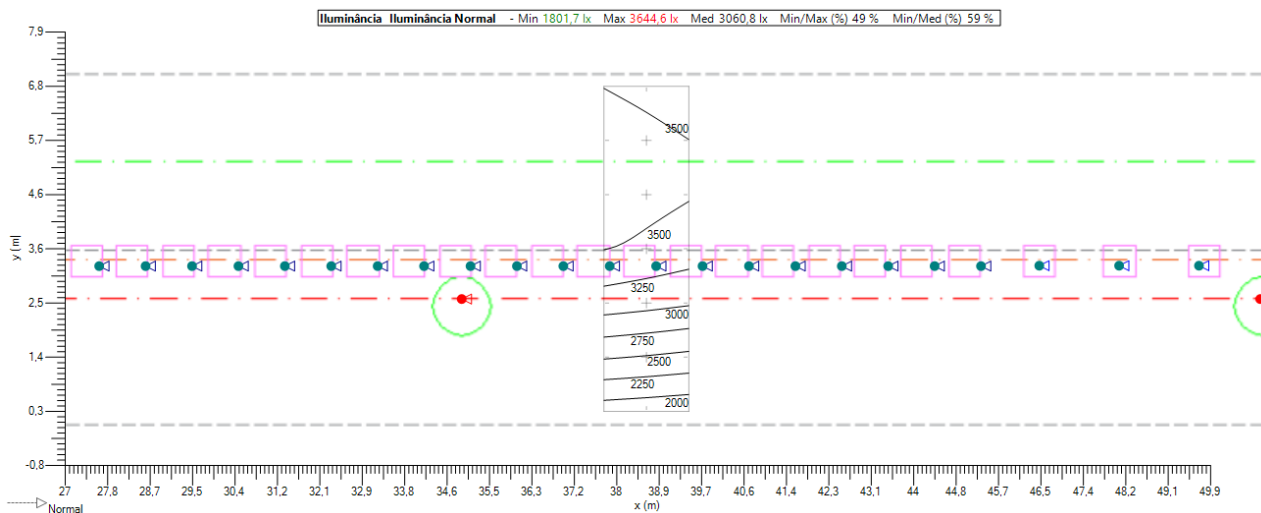


5.5. Z. ENTRADA SUL.2 - Normal

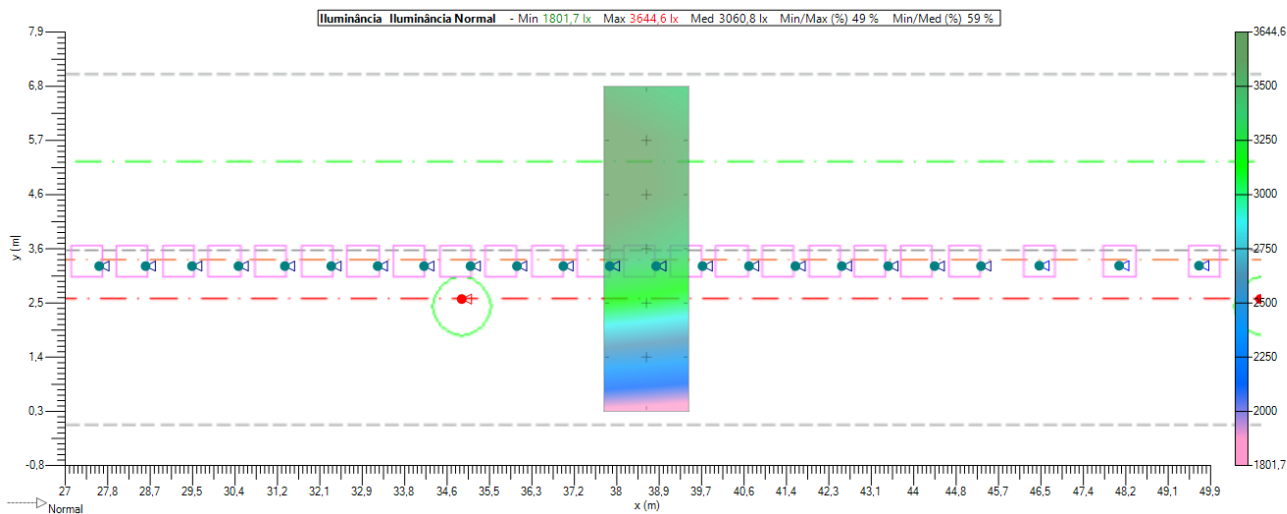
Resultados



Isolevel

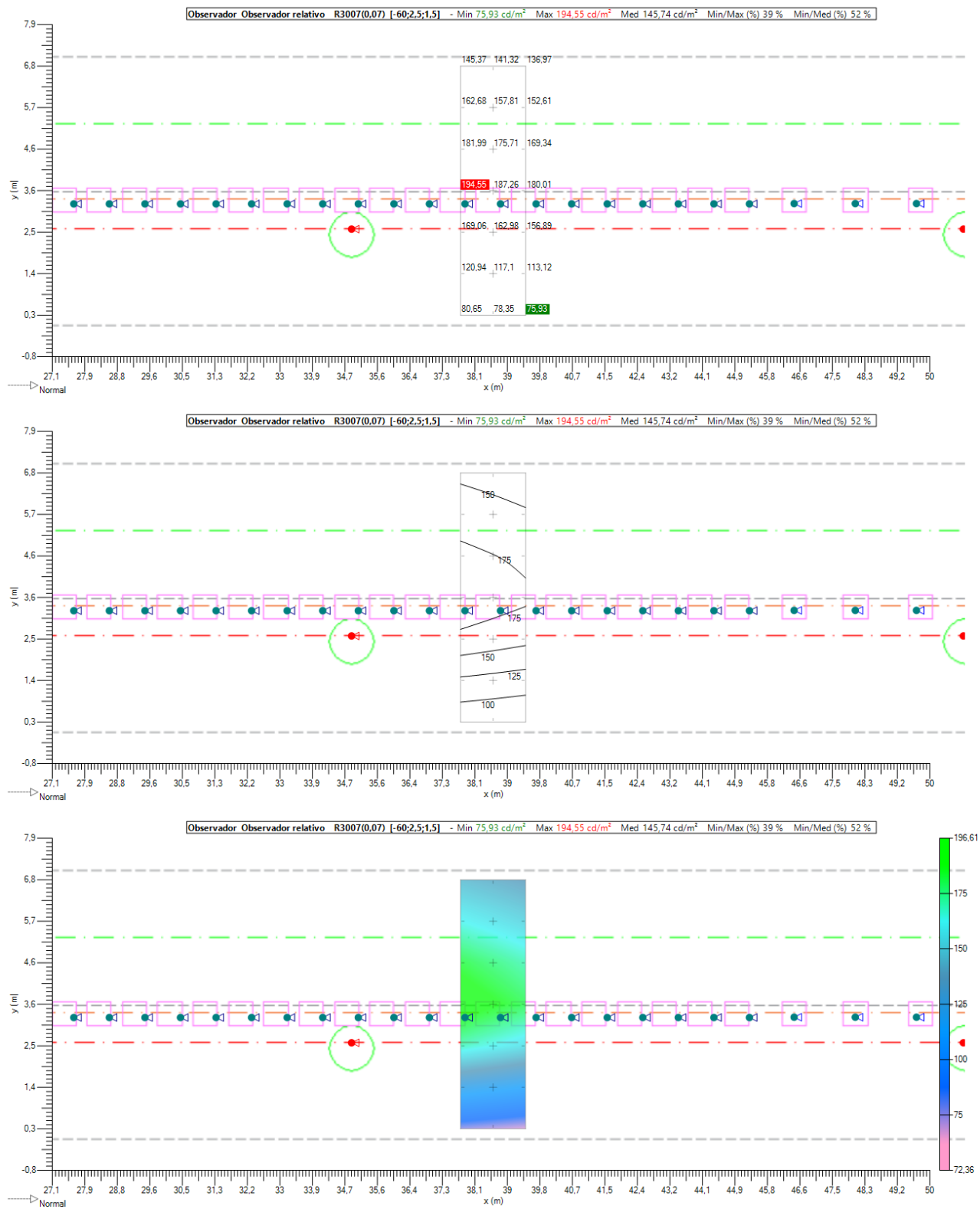


Sombreado

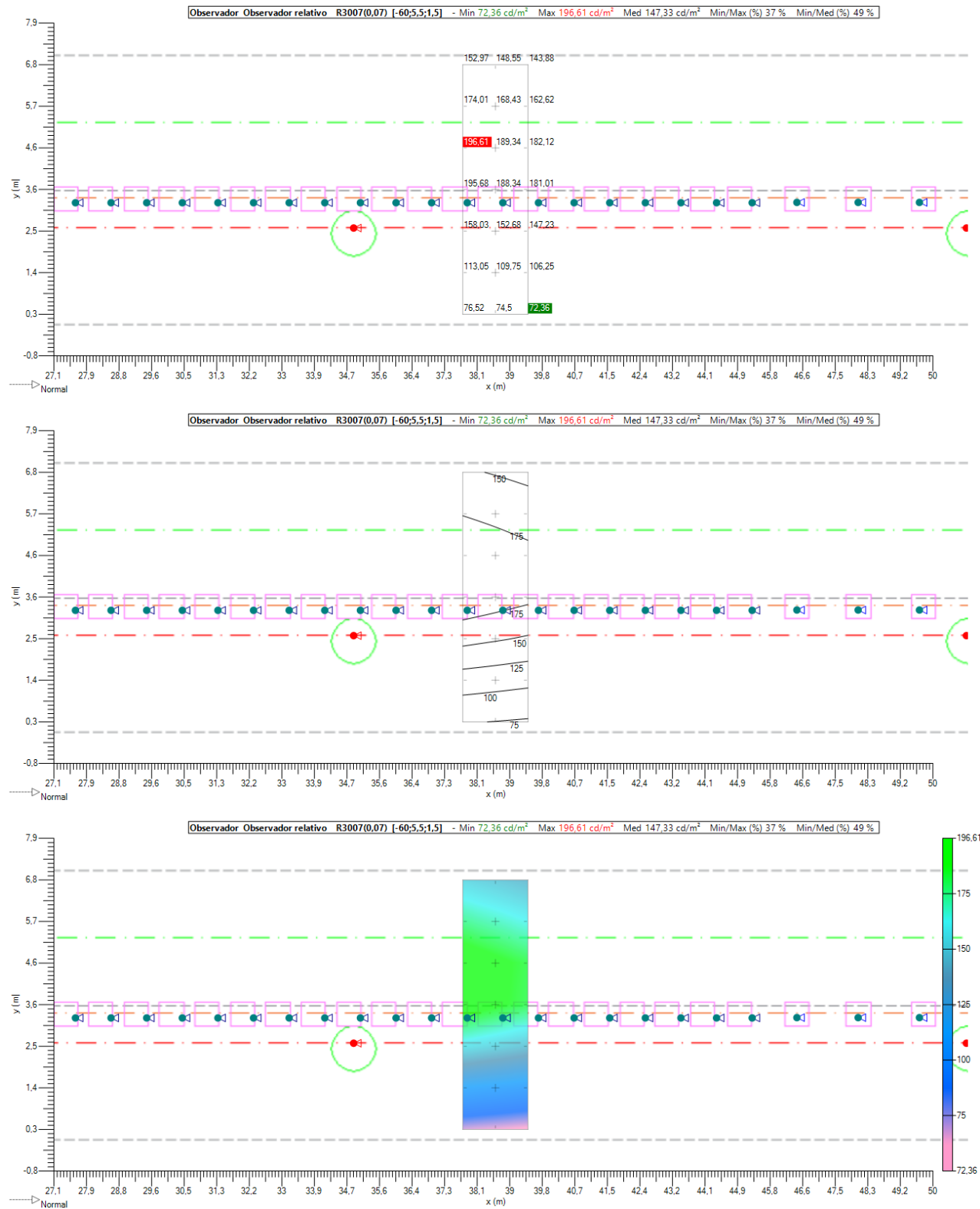


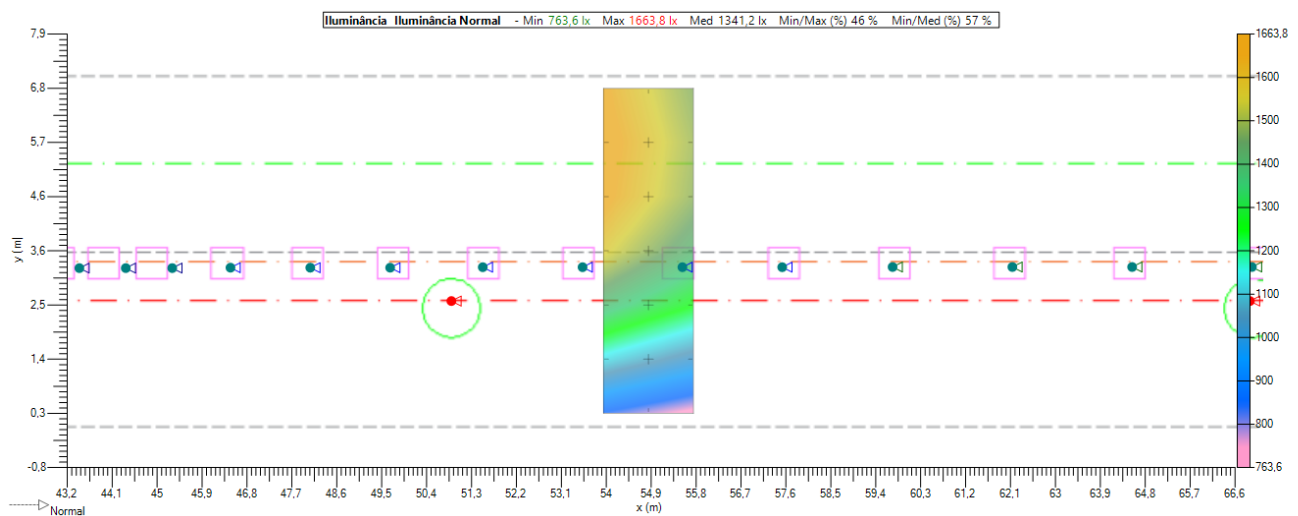
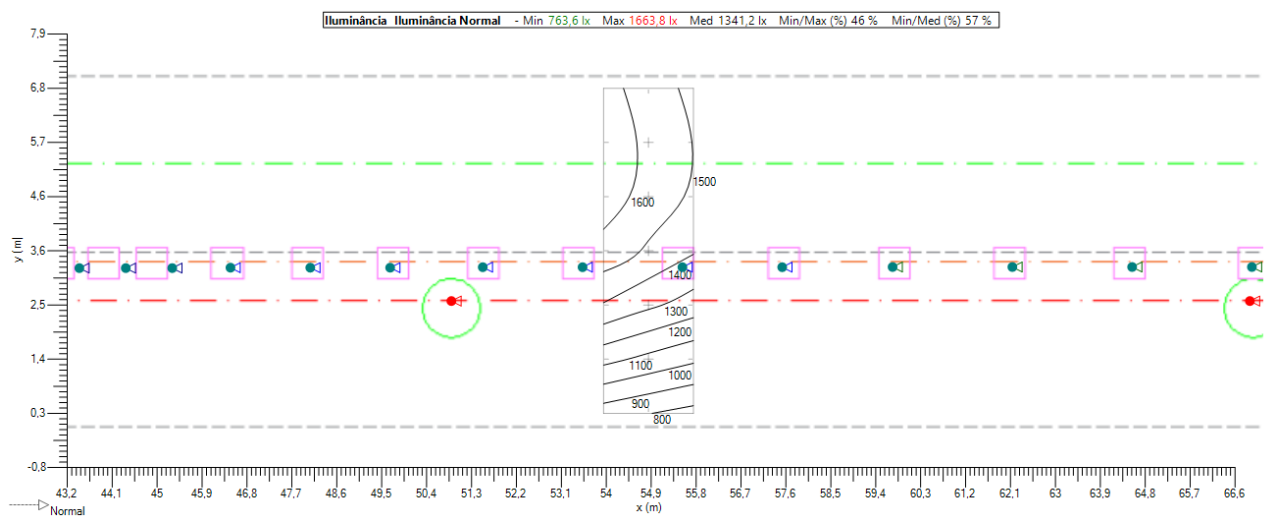
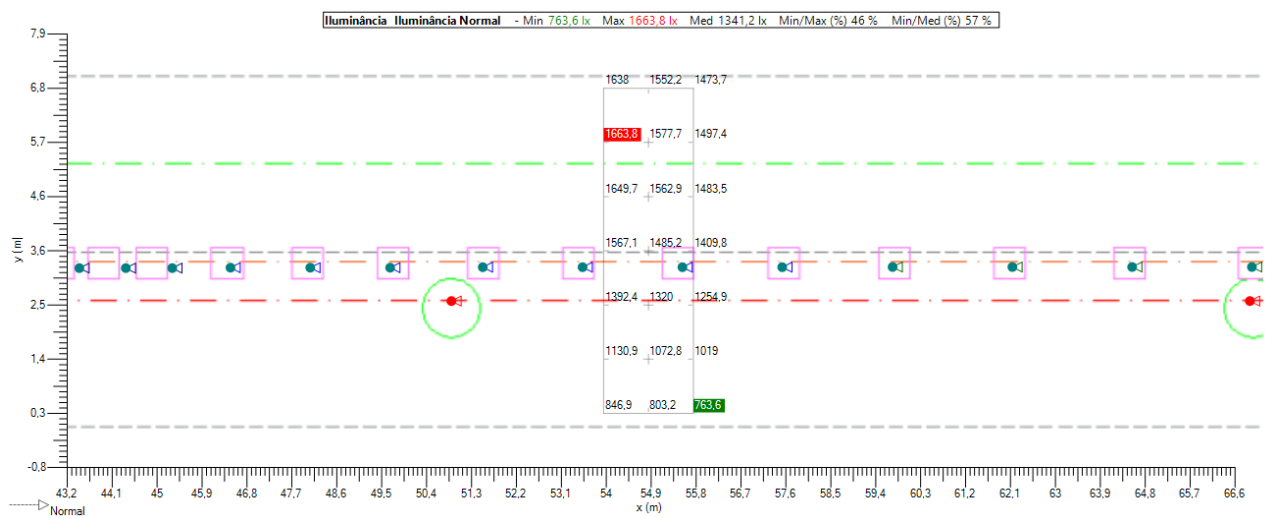
5.6. Luminância - Z. ENTRADA SUL.2 - R3007

Z. ENTRADA SUL.2 - Relative 1



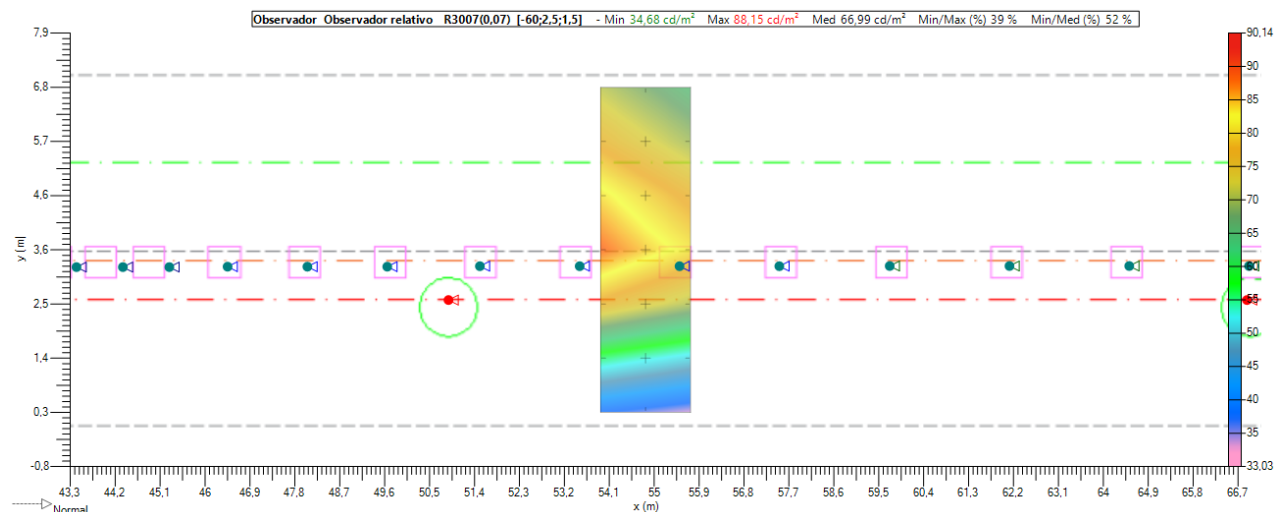
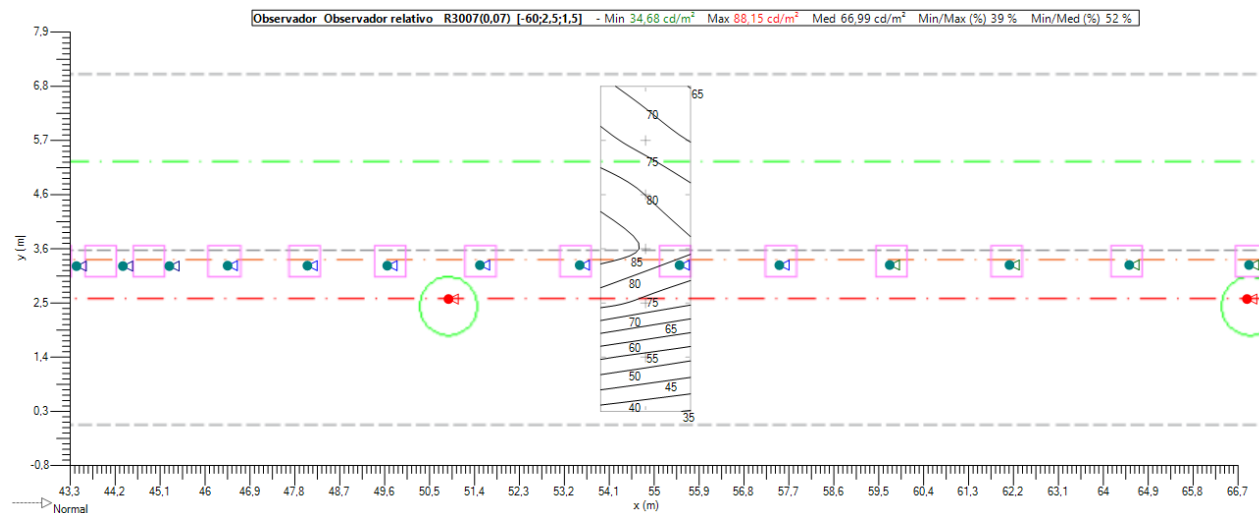
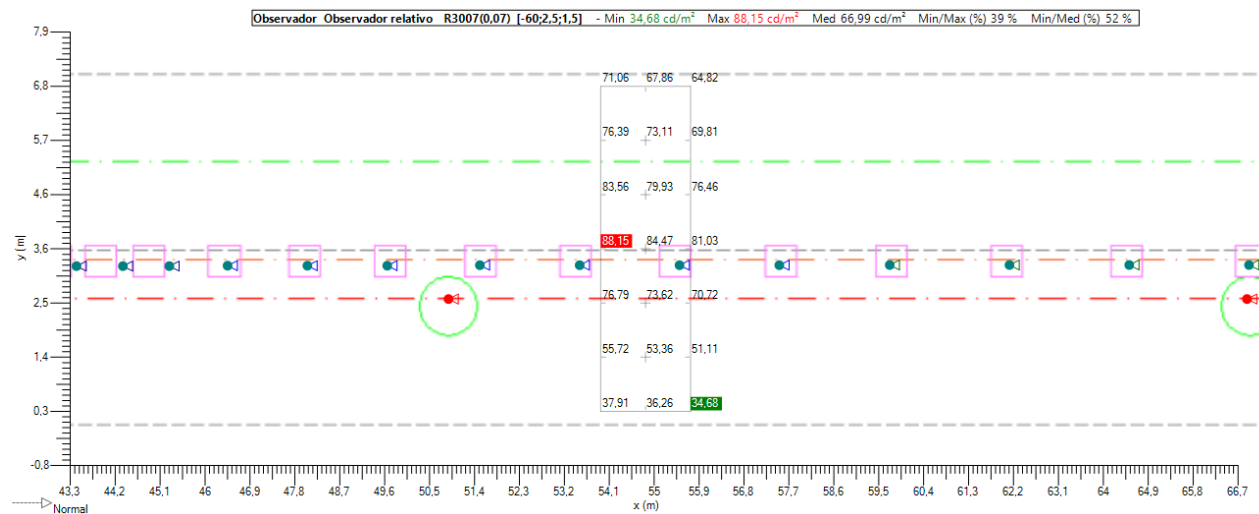
Z. ENTRADA SUL.2 - Relative 2



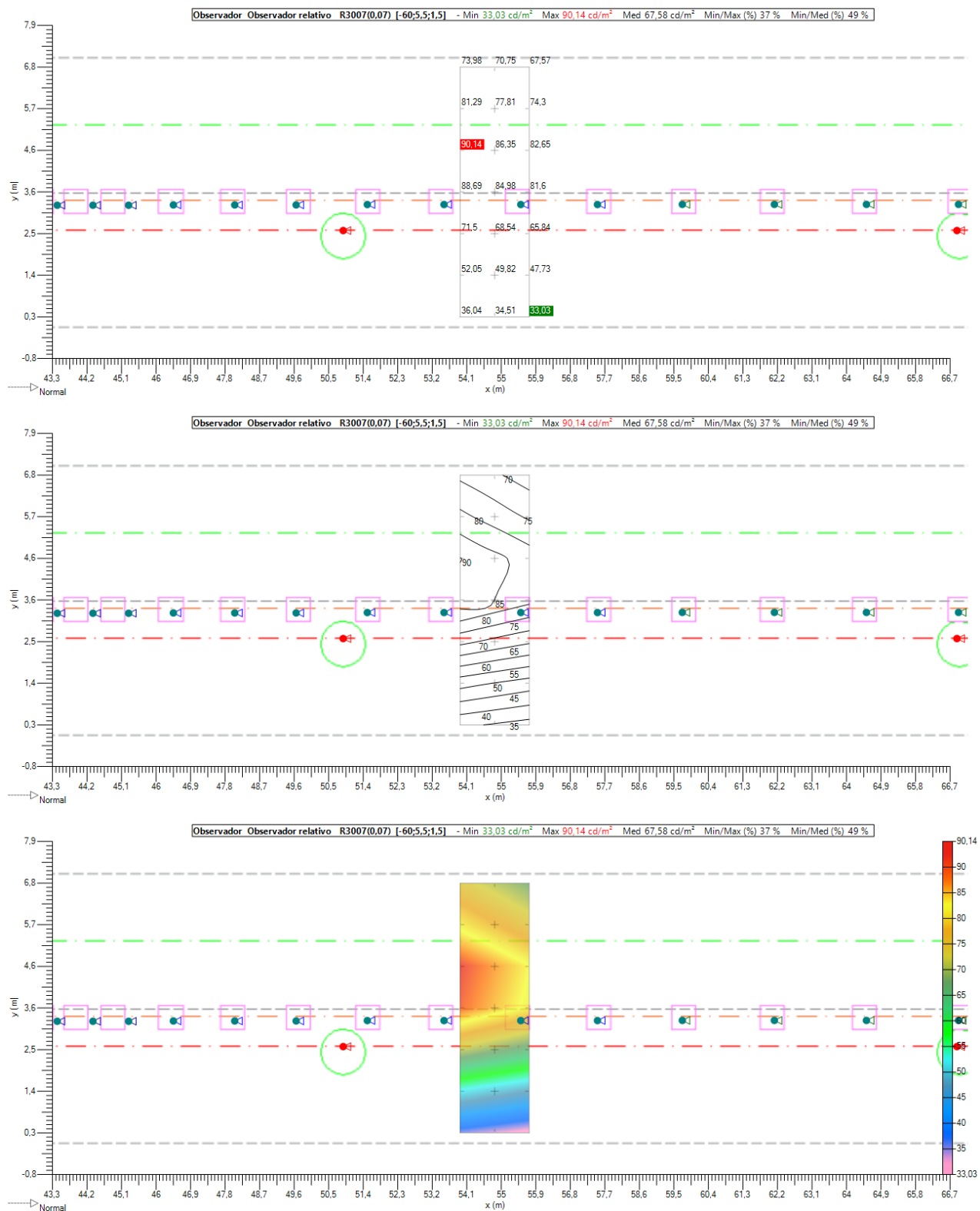


5.8. Luminância - Z. TRANSIÇÃO SUL - 1 - R3007

Z. TRANSIÇÃO SUL - 1 - Relative 1

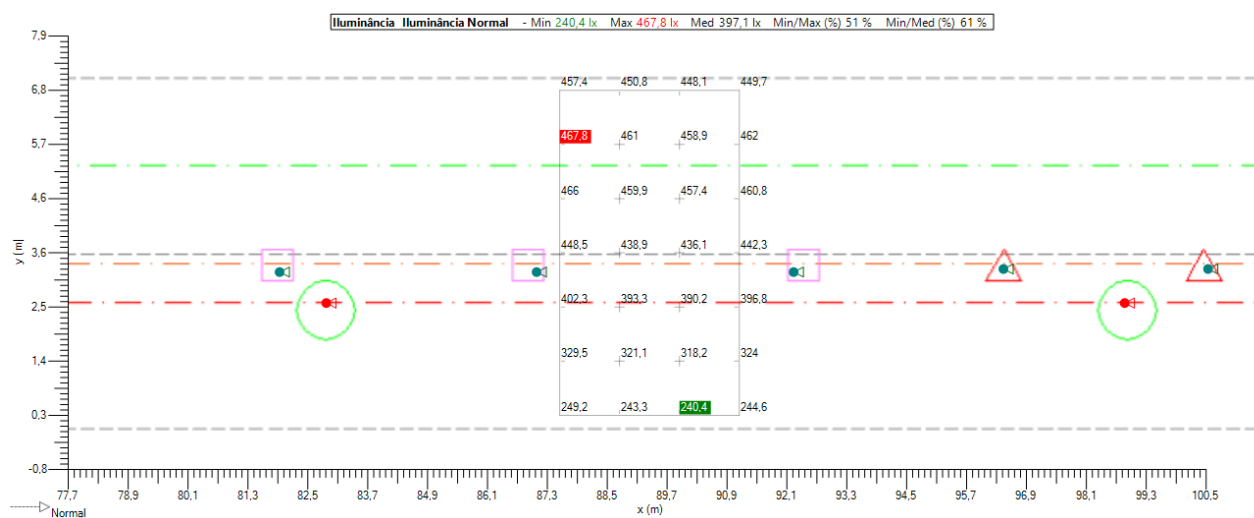


## Z. TRANSIÇÃO SUL - 1 - Relative 2

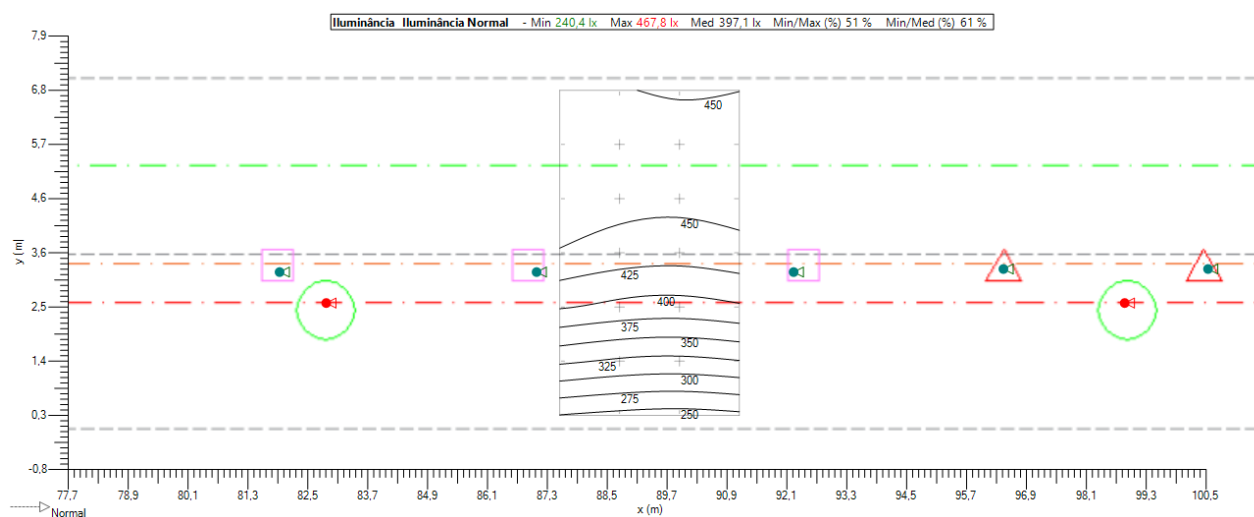


## 5.9. Z. TRANSIÇÃO SUL - 2 - Normal

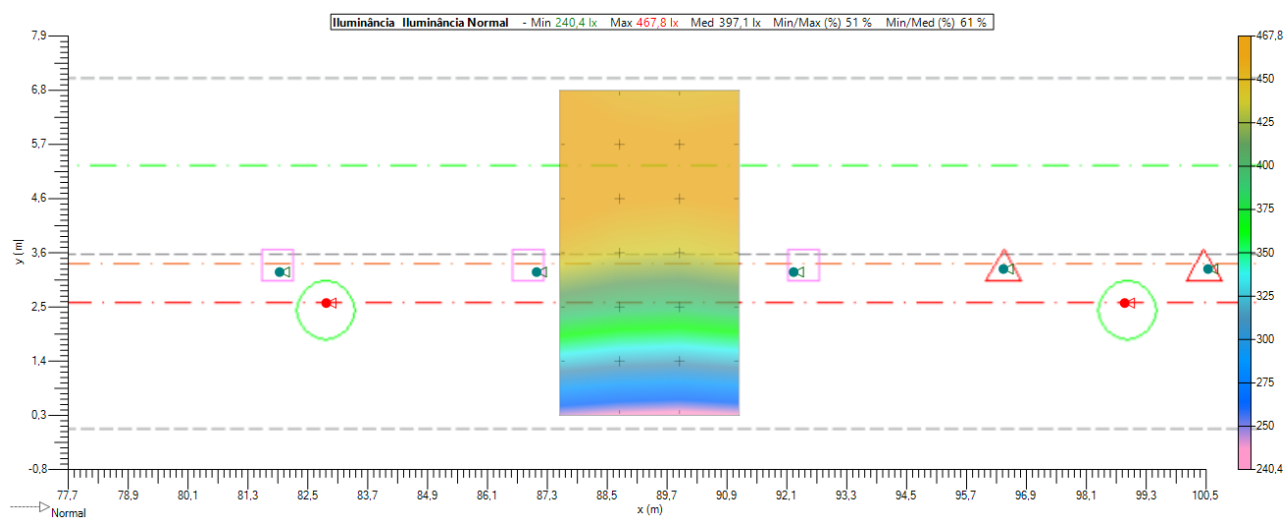
## Resultados



## Isolevel

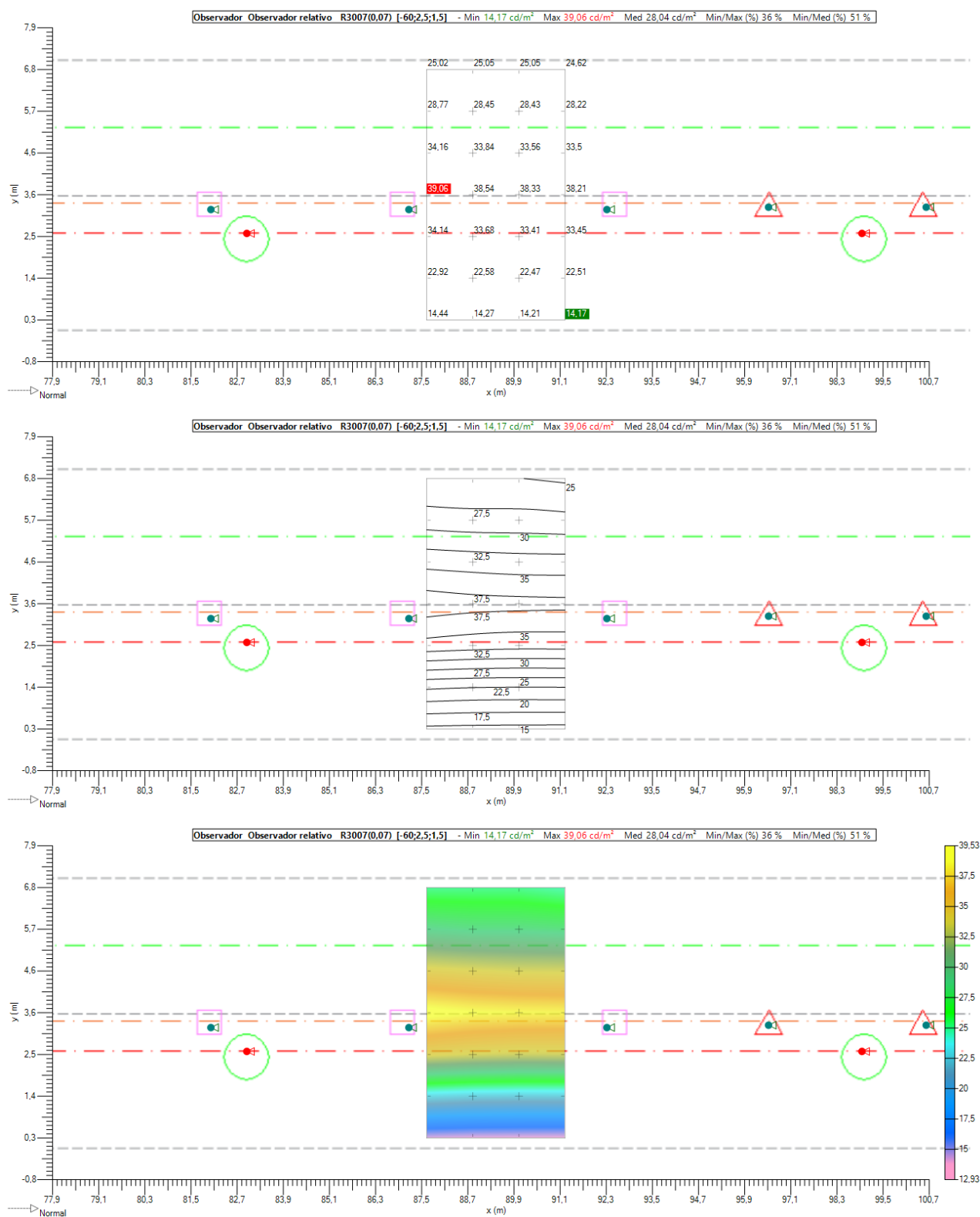


## Sombreado

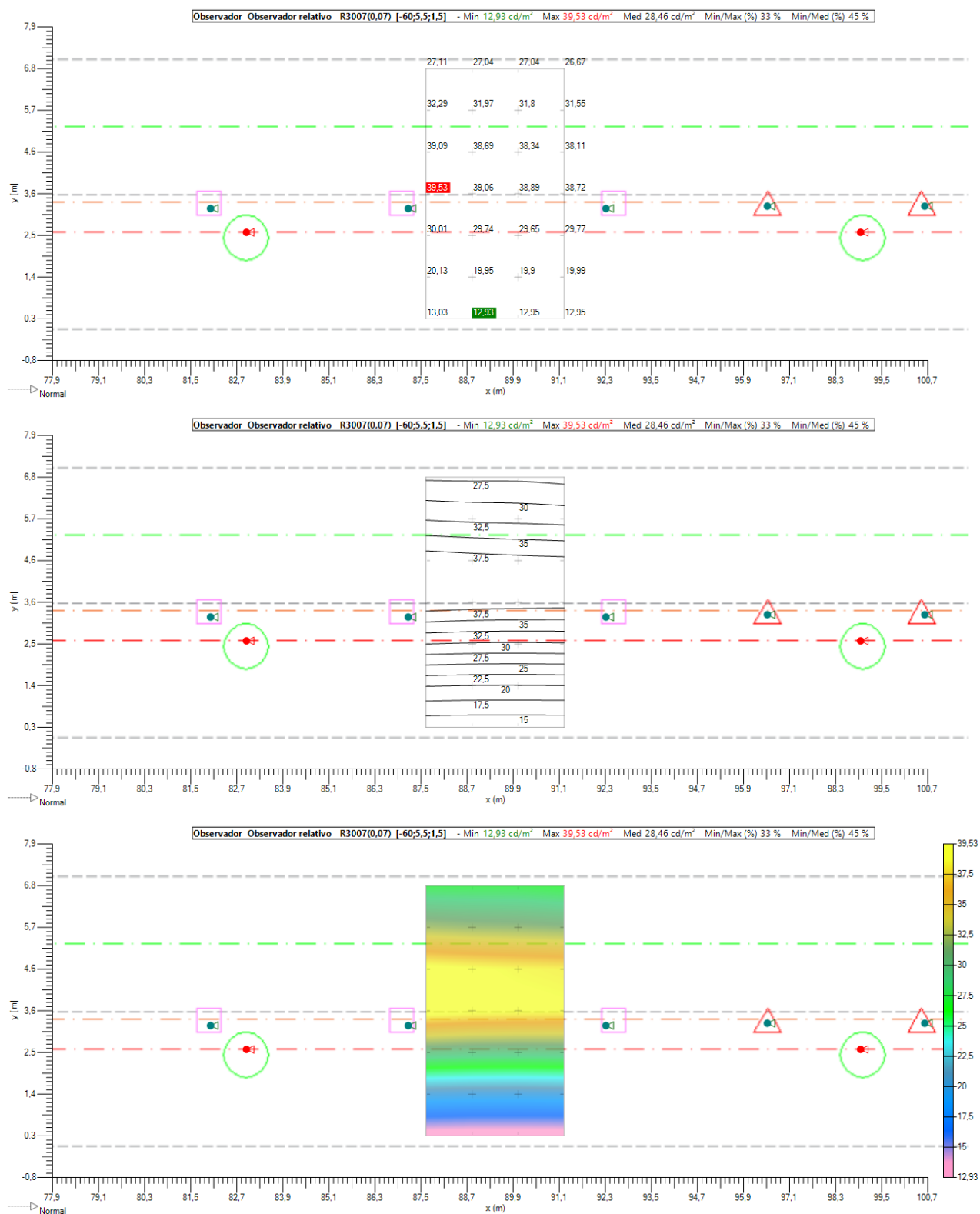


## 5.10. Luminância - Z. TRANSIÇÃO SUL - 2 - R3007

### Z. TRANSIÇÃO SUL - 2 - Relative 1

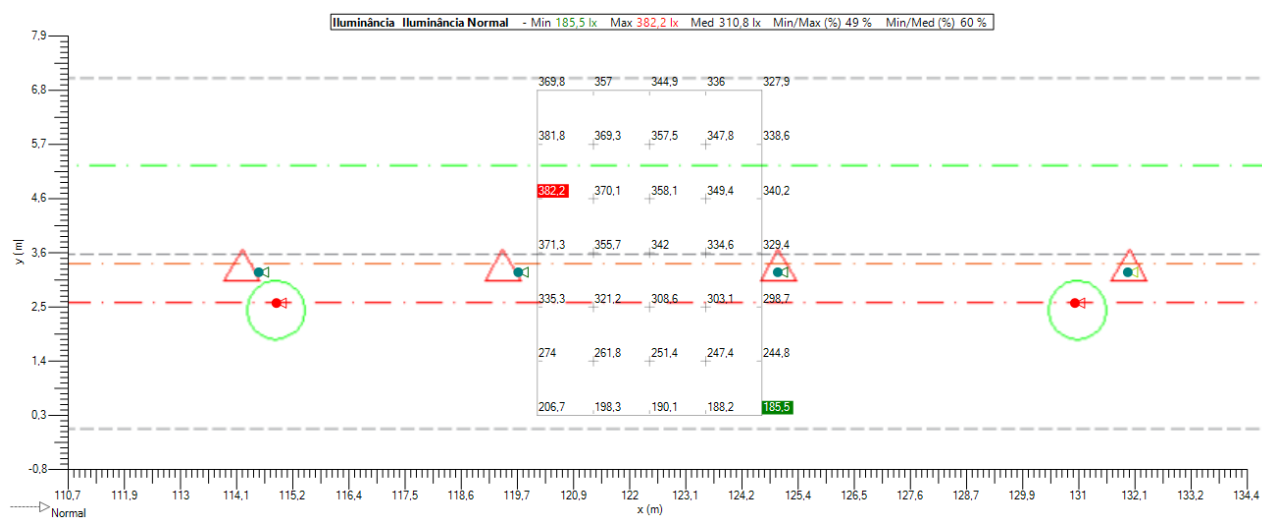


## Z. TRANSIÇÃO SUL - 2 - Relative 2

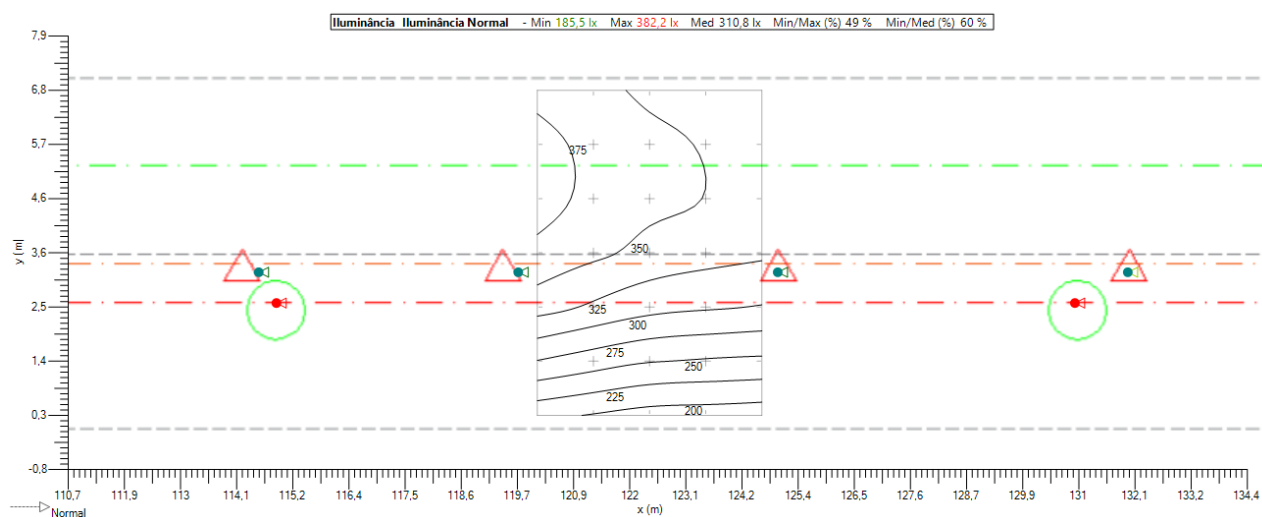


## 5.11. Z. TRANSIÇÃO SUL - 3 - Normal

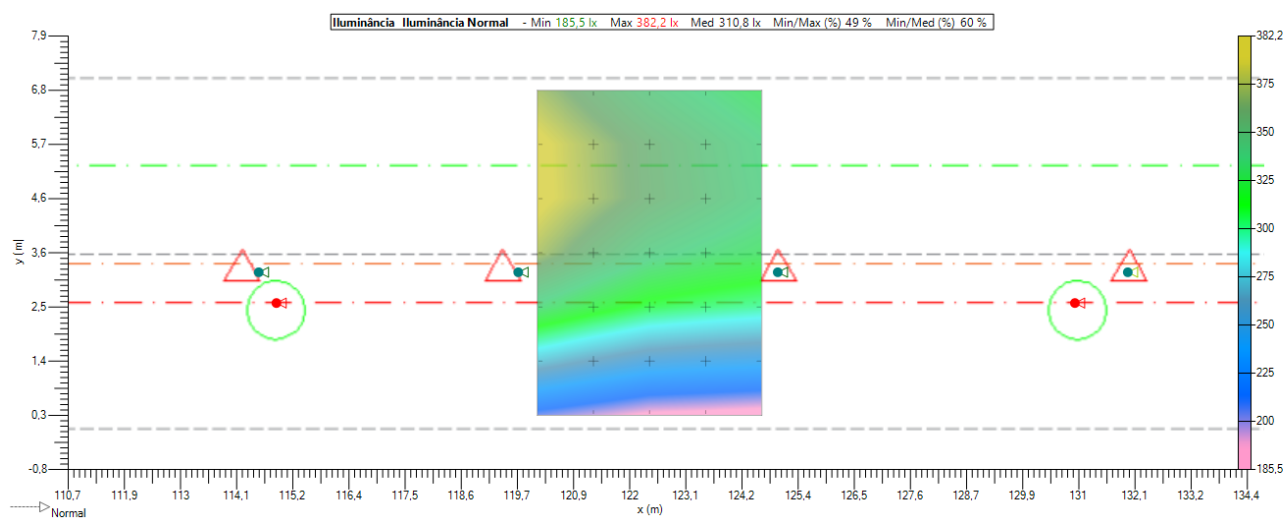
### Resultados



### Isolevel

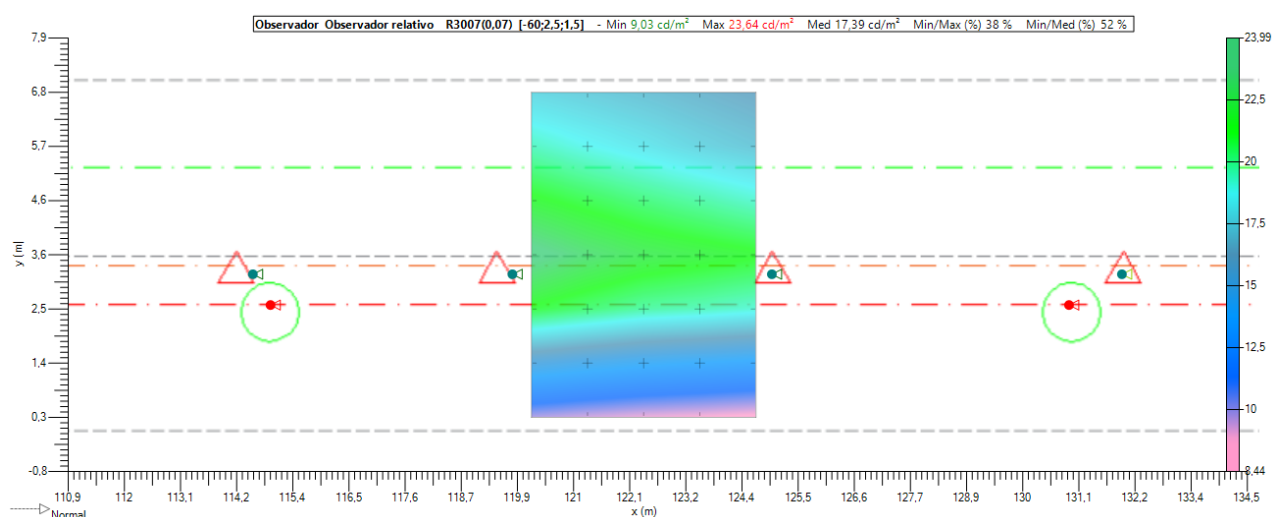
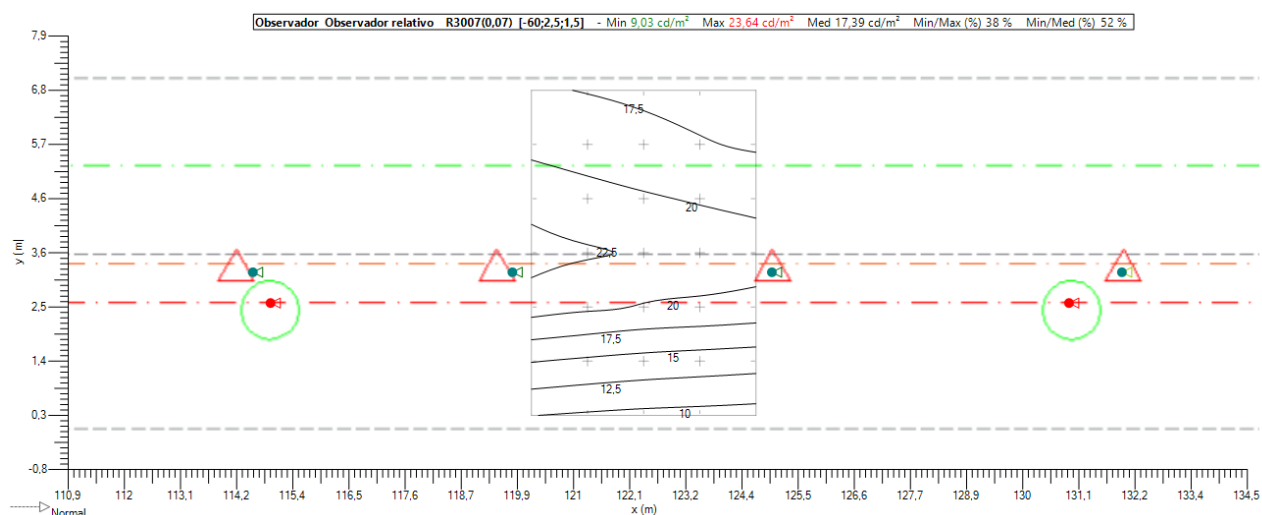
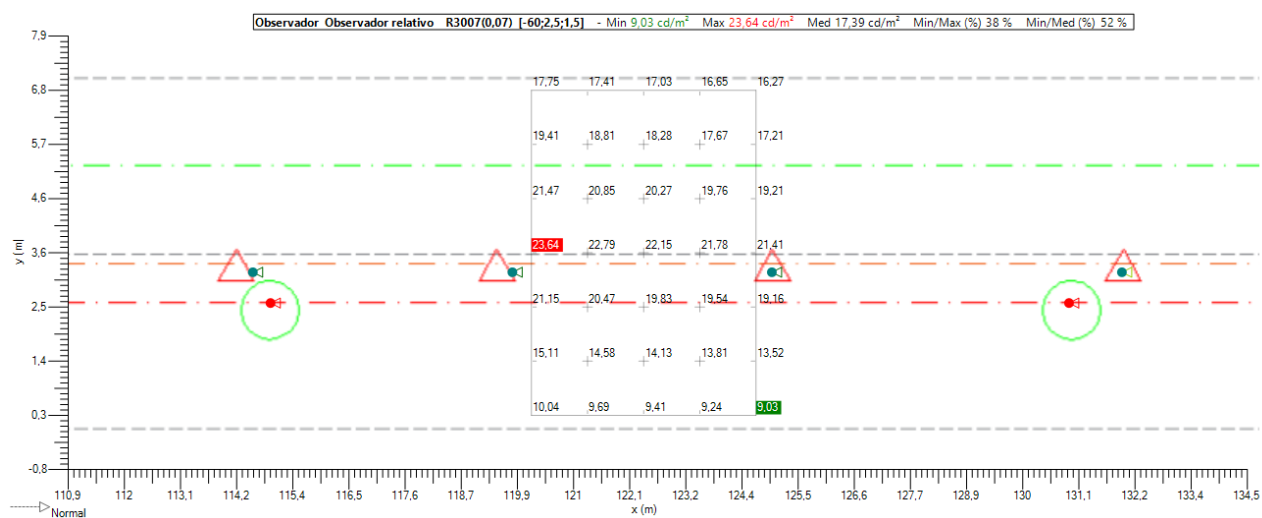


### Sombreado

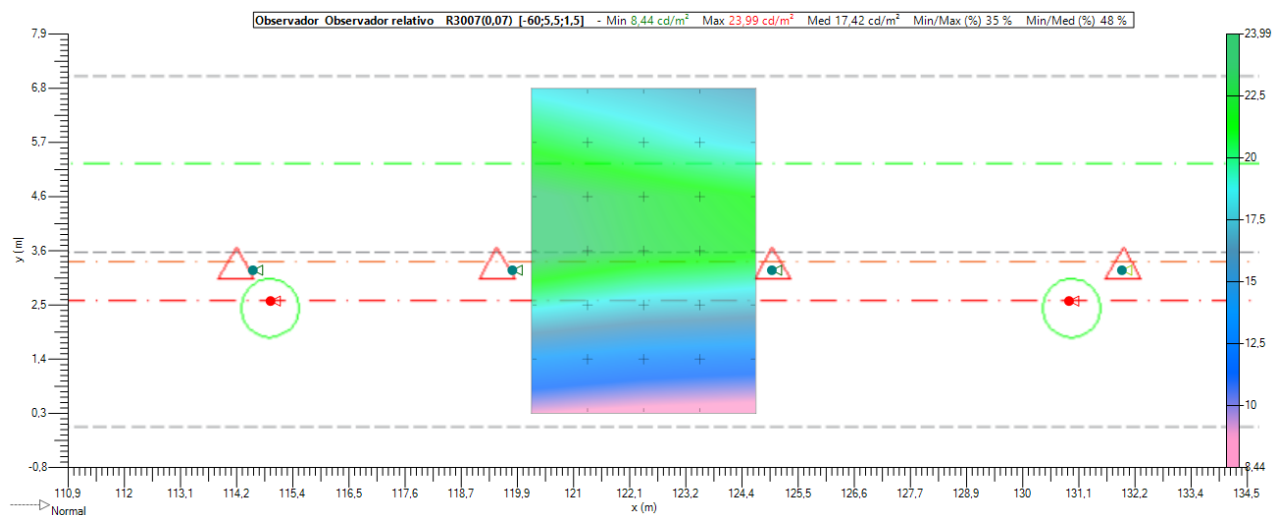
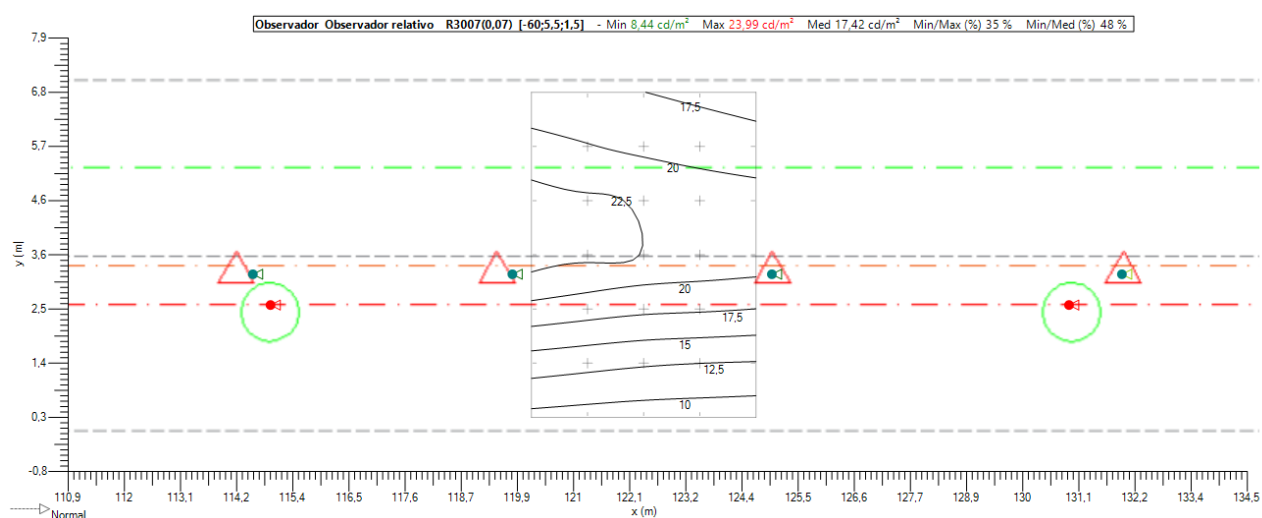
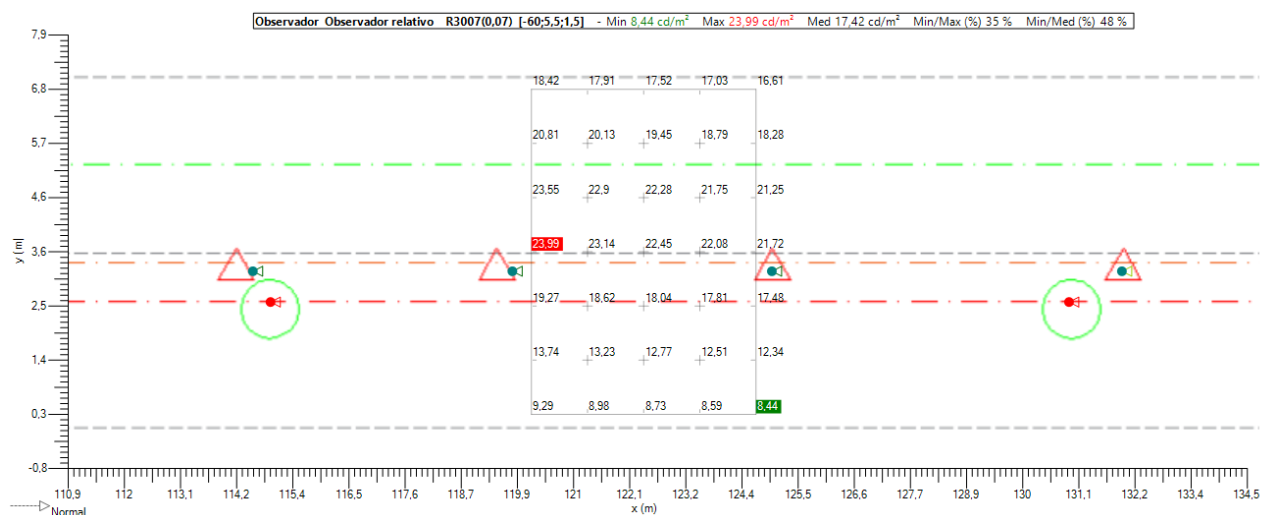


## 5.12. Luminância - Z. TRANSIÇÃO SUL - 3 - R3007

### Z. TRANSIÇÃO SUL - 3 - Relative 1

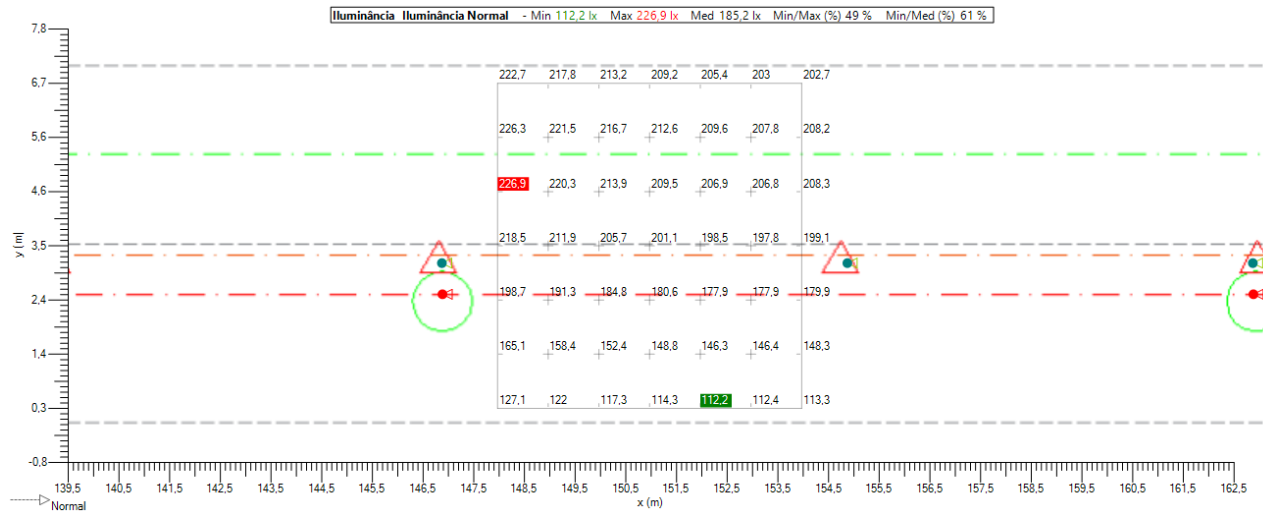


## Z. TRANSIÇÃO SUL - 3 - Relative 2

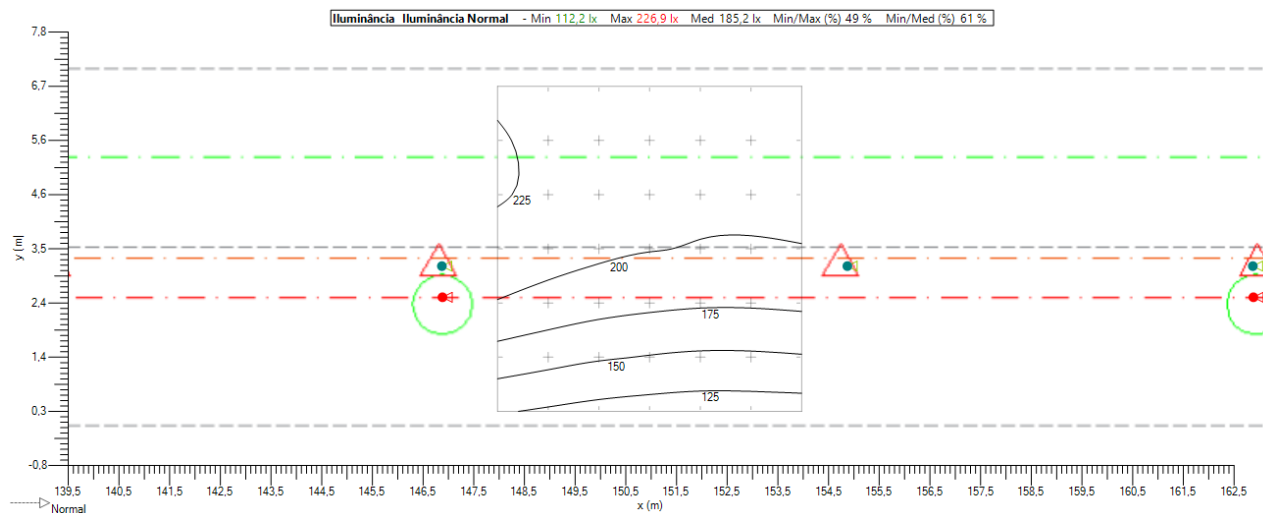


5.13. Z. INTERIOR SUL - Normal

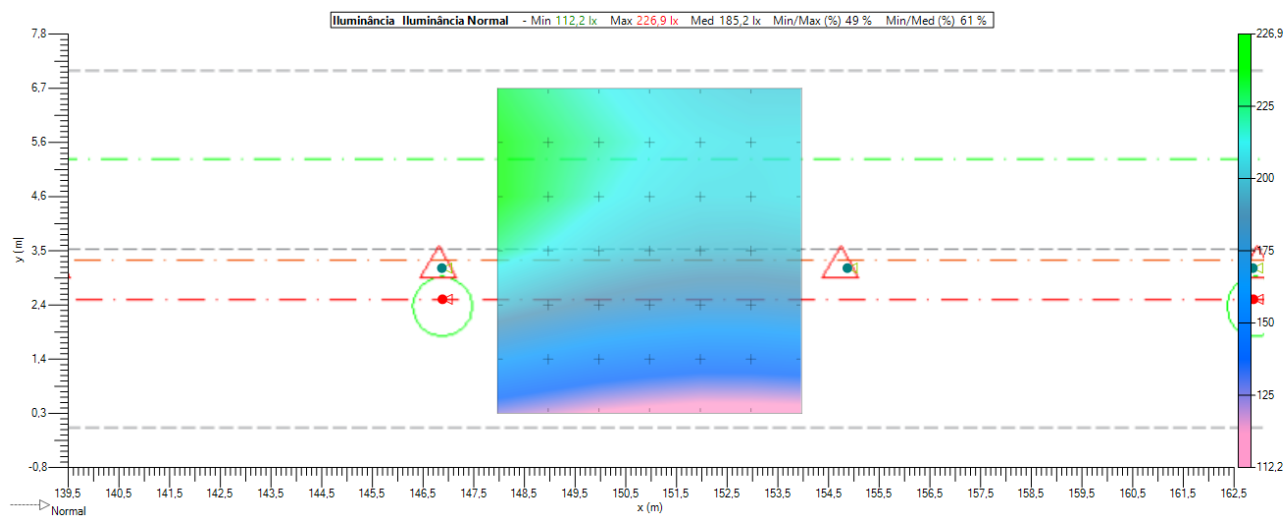
Resultados



Isolevel

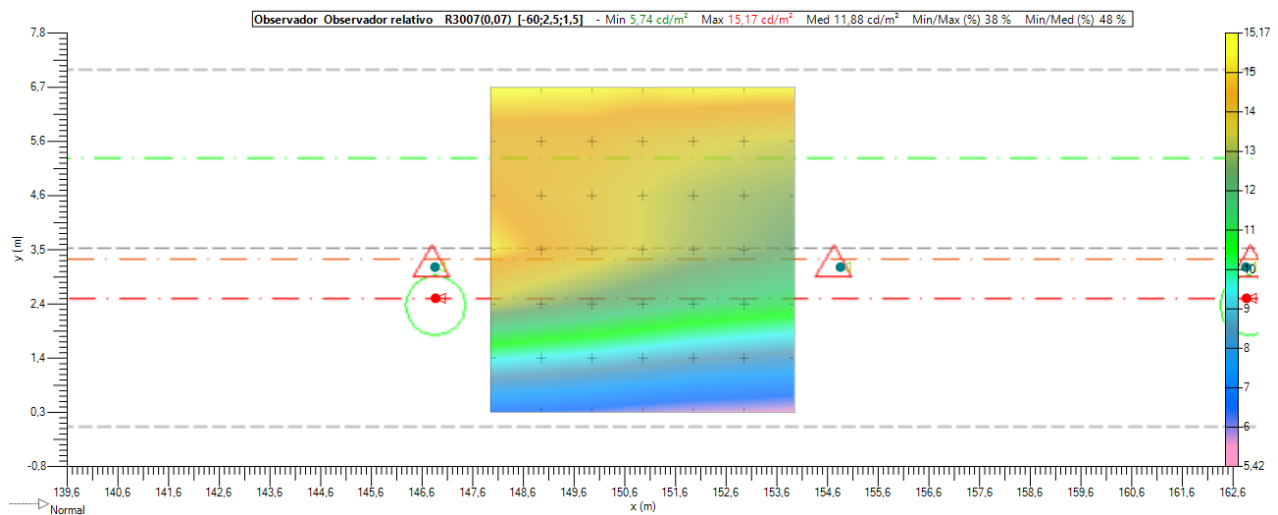


Sombreado

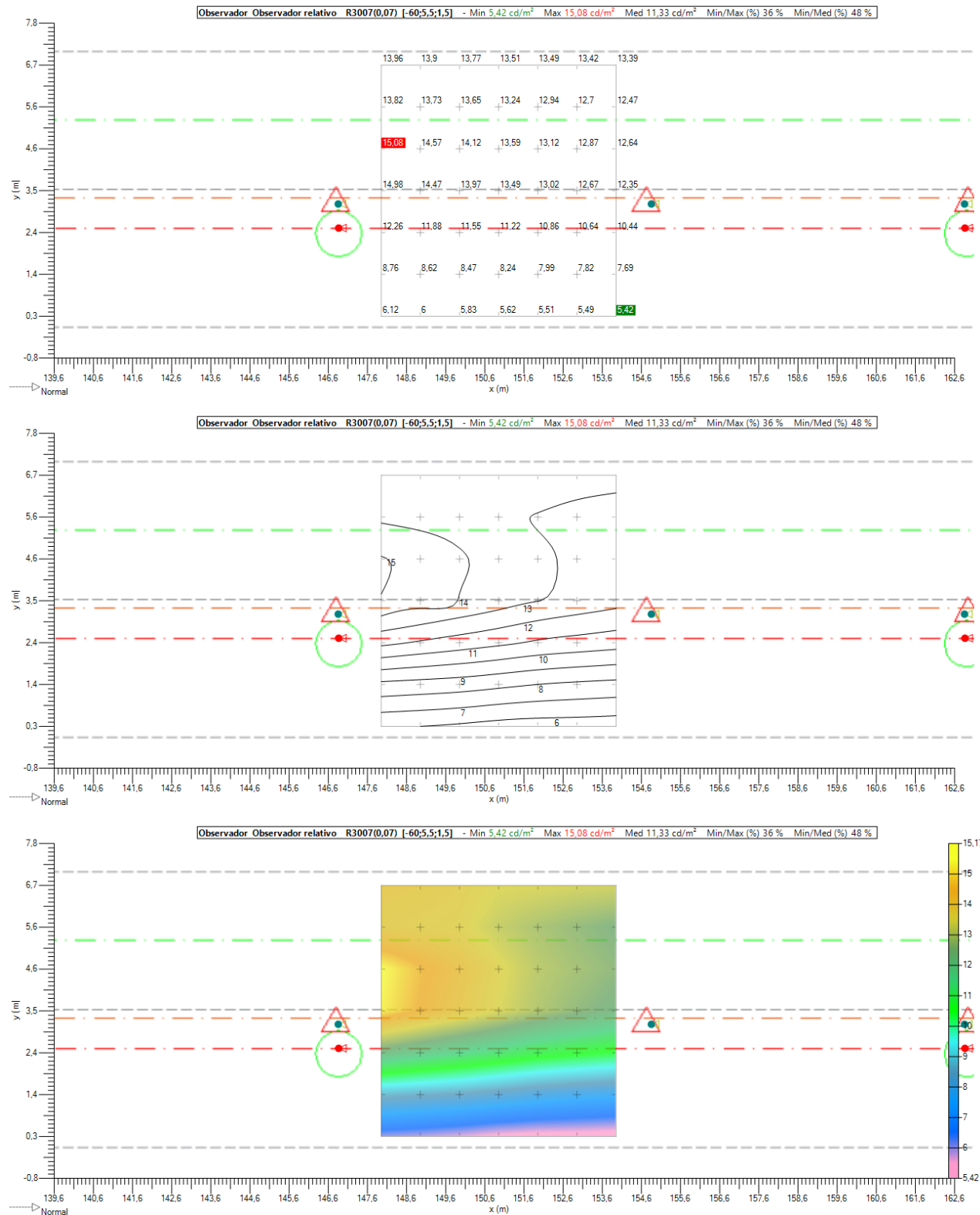


### ANTERIOR SUL - Relative 1

|     |        |
|-----|--------|
| 7,8 | Observ |
|-----|--------|

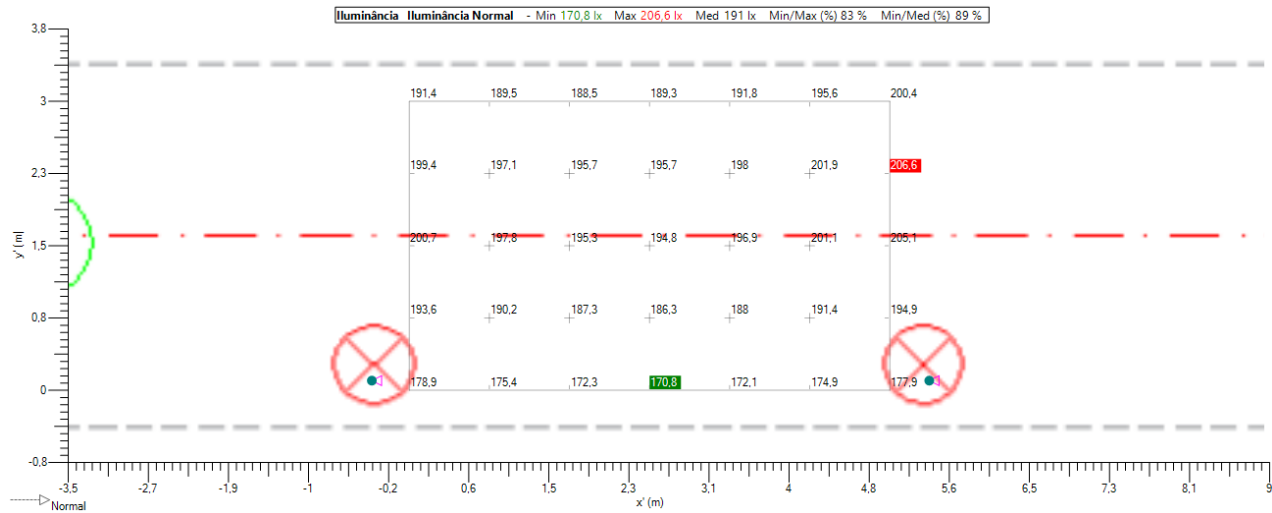


Z. INTERIOR SUL - Relative 2

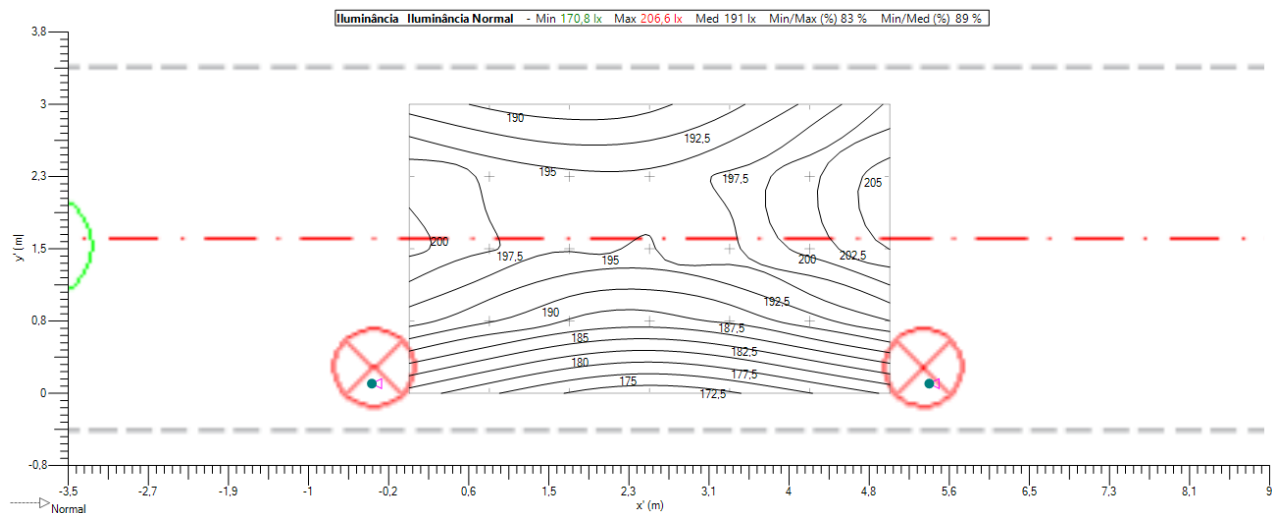


5.15. Z. INTERIOR NORTE - Normal

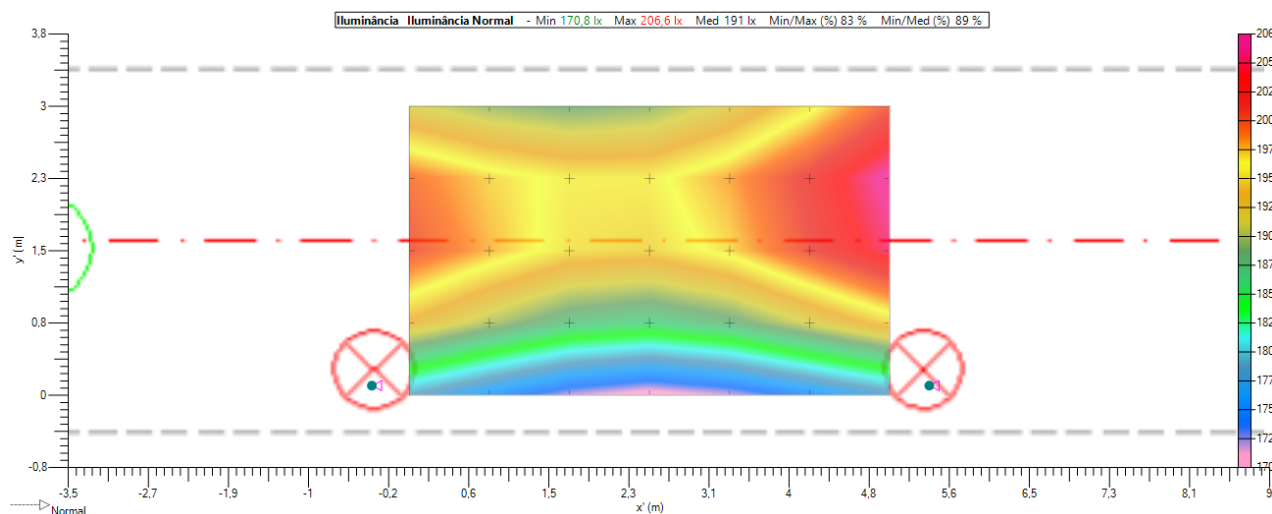
Resultados



Isolevel

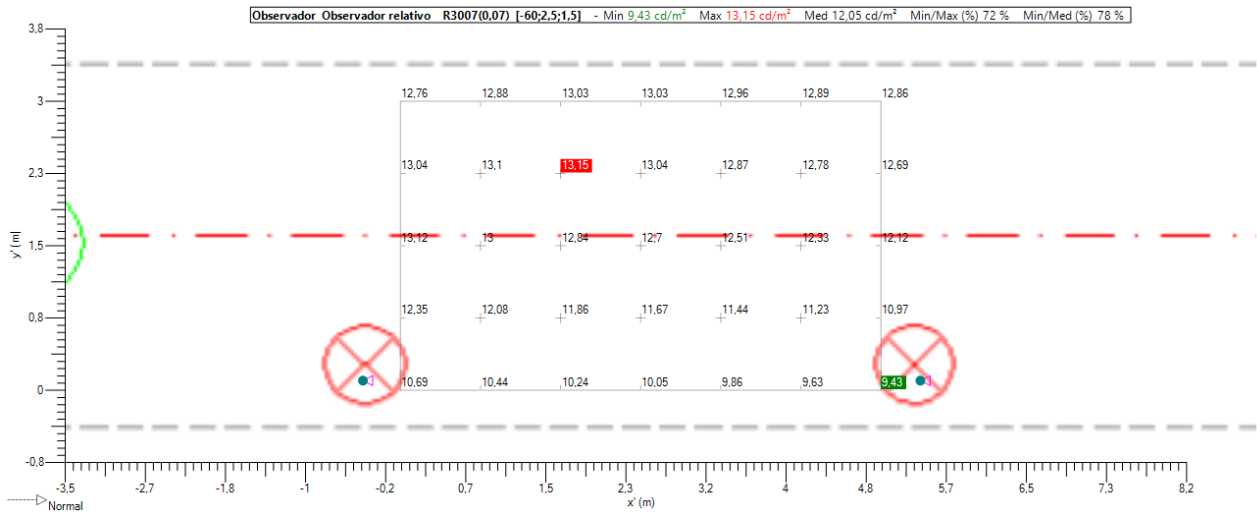


Sombreado

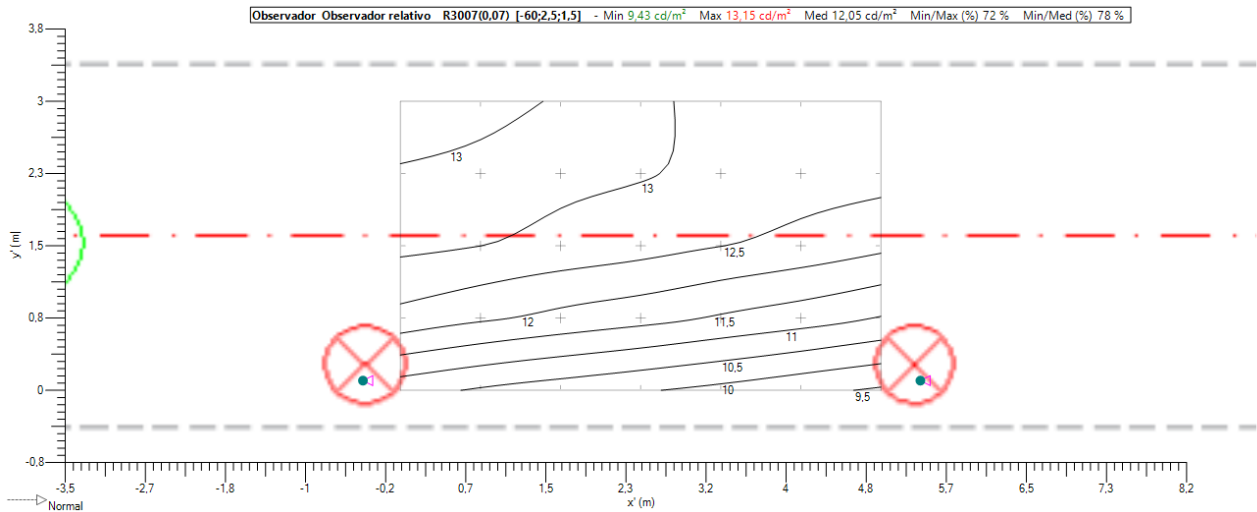


5.16. Z. INTERIOR NORTE - Luminance RTable - Relative 1

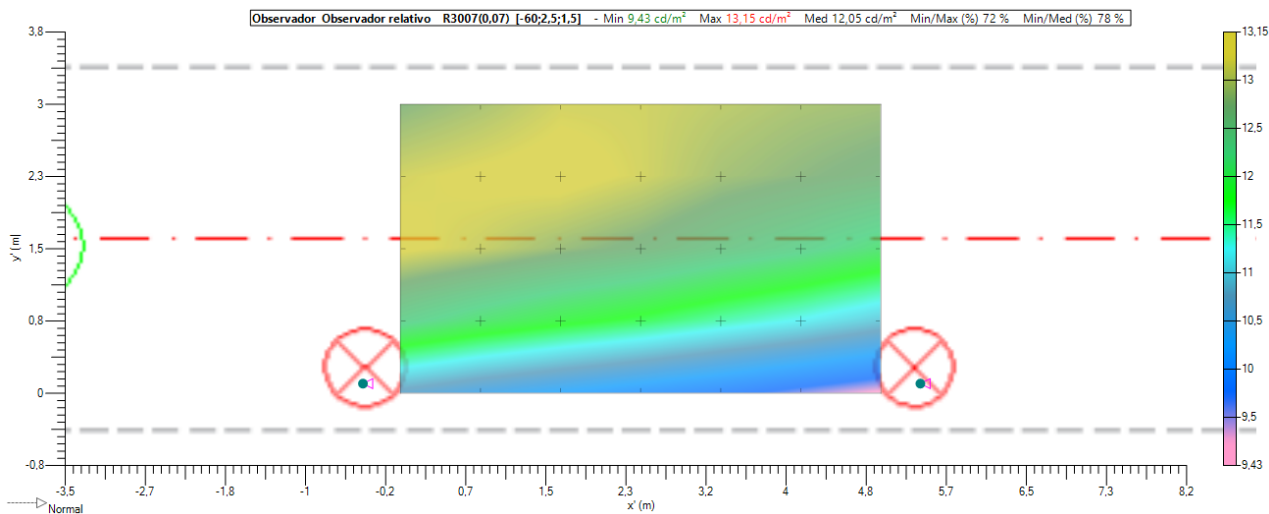
Resultados



Isolevel

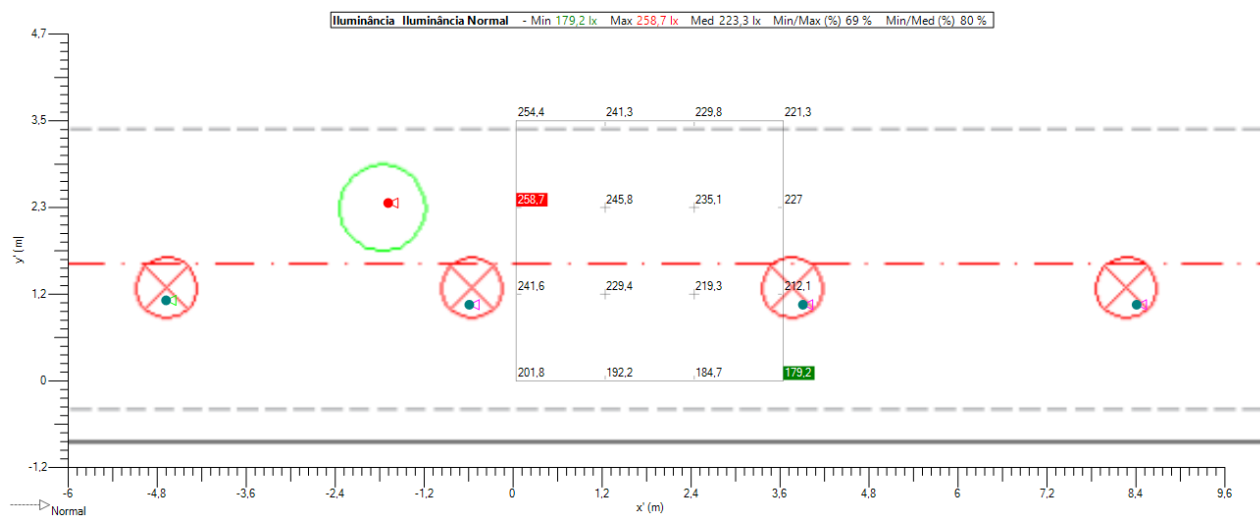


Sombreado

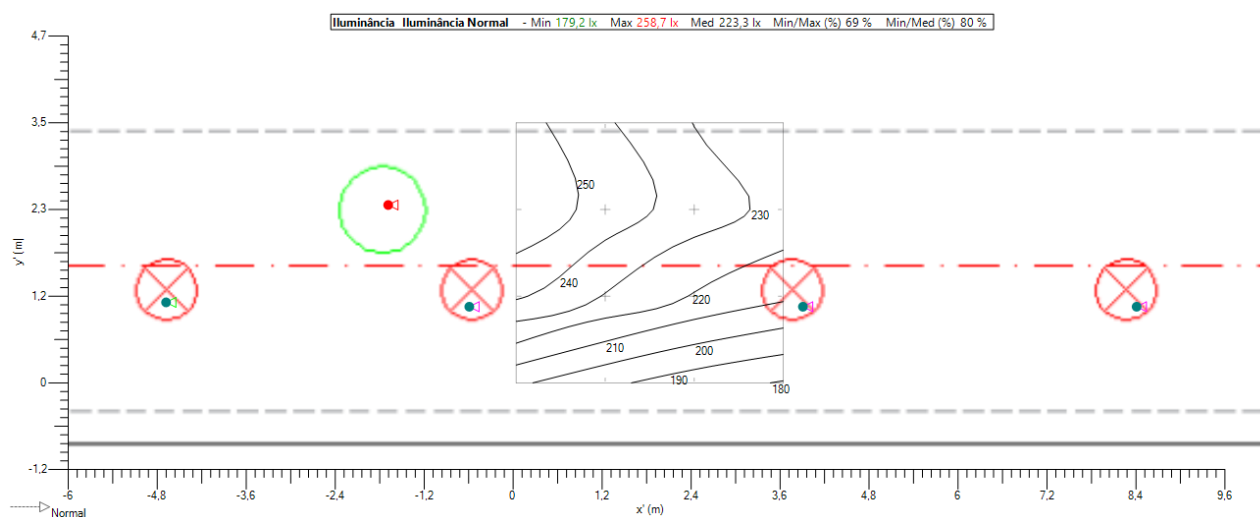


## 5.17. Z. TRANSIÇÃO NORTE - 4 - Normal

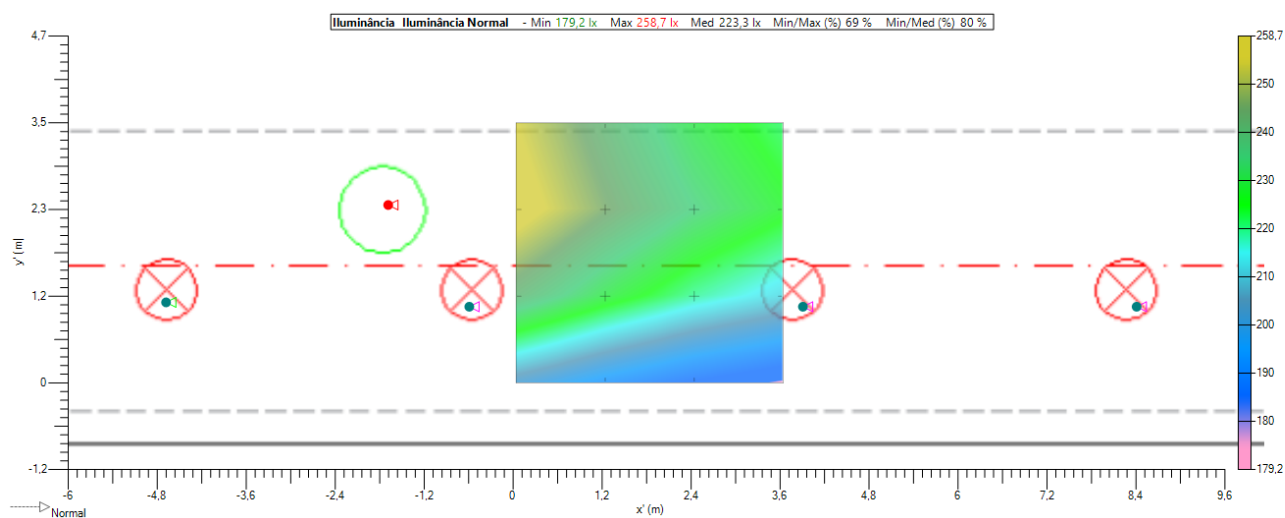
### Resultados



### Isolevel

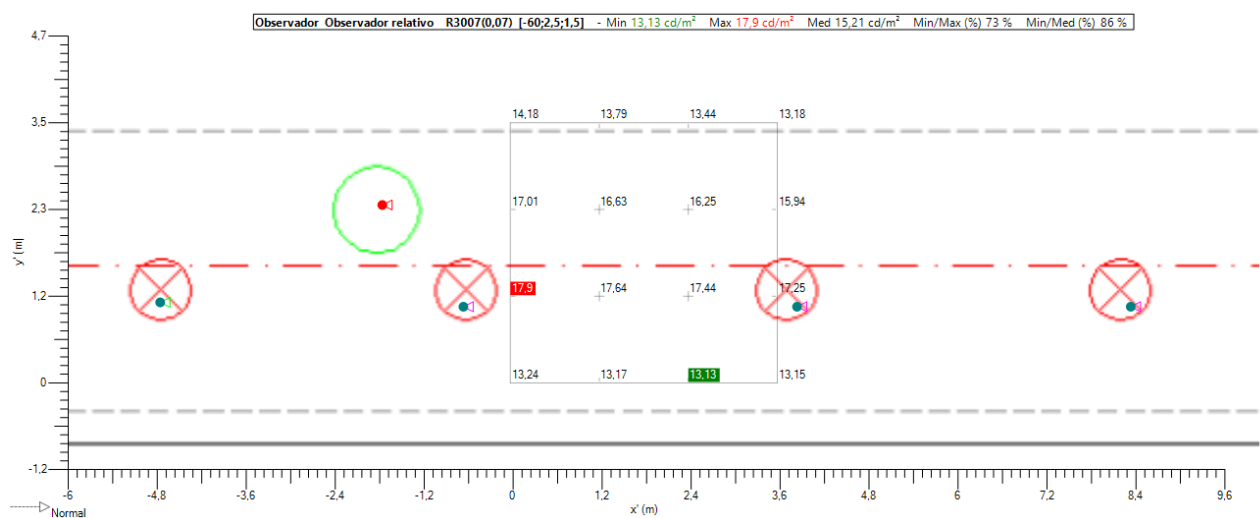


### Sombreado

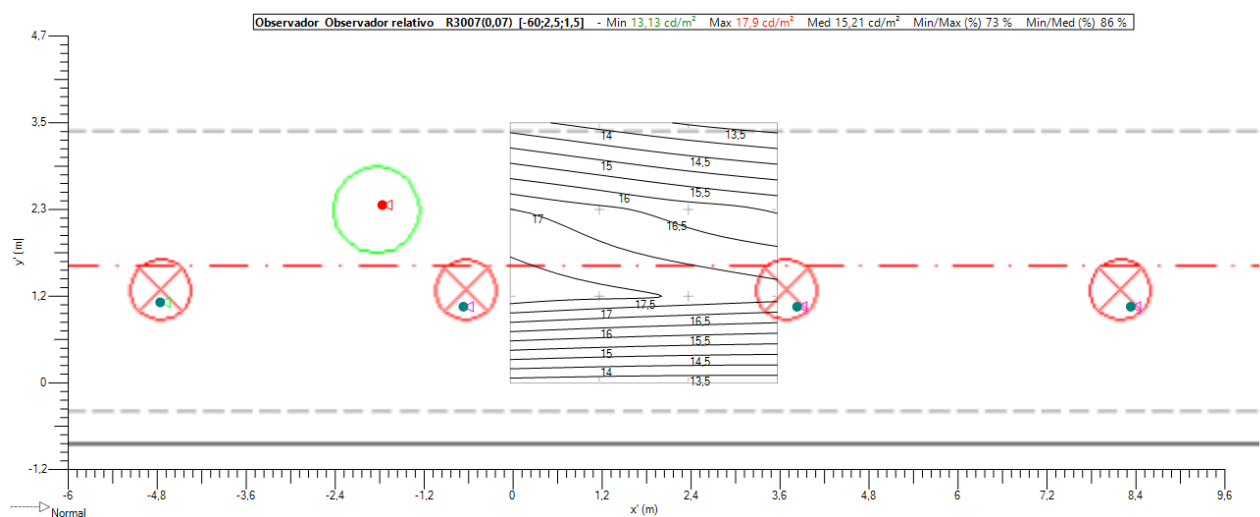


## 5.18. Z. TRANSIÇÃO NORTE - 4 - Luminance RTable - Relative 1

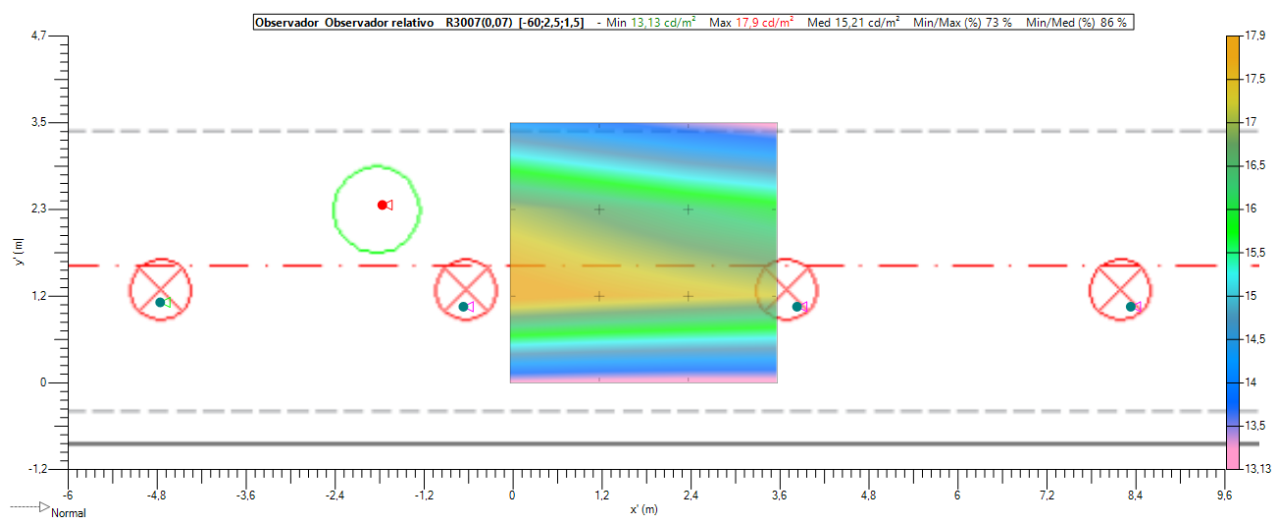
### Resultados



### Isolevel

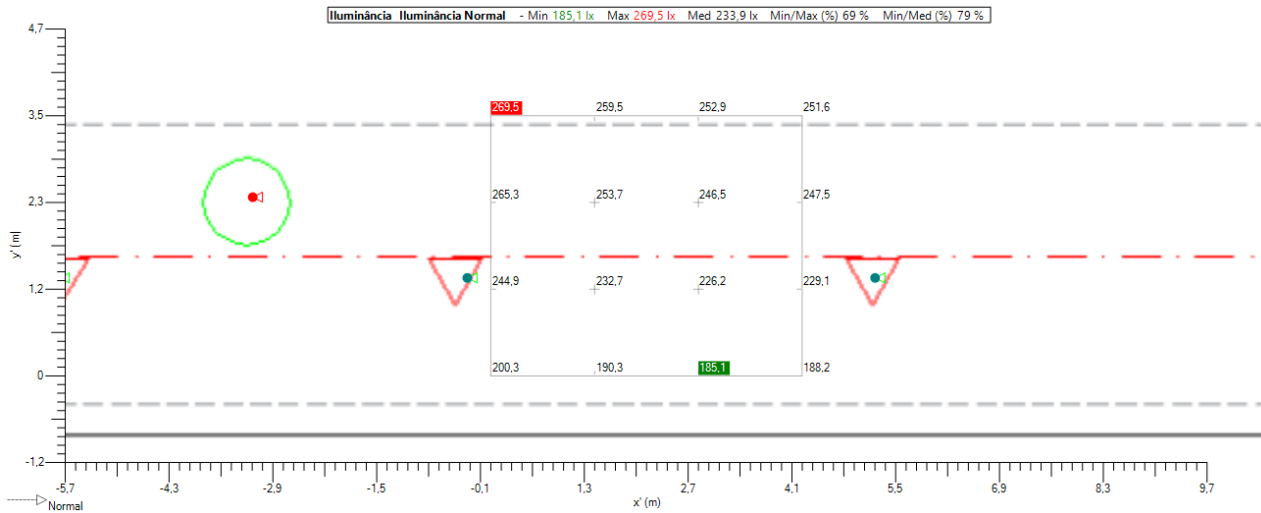


### Sombreado

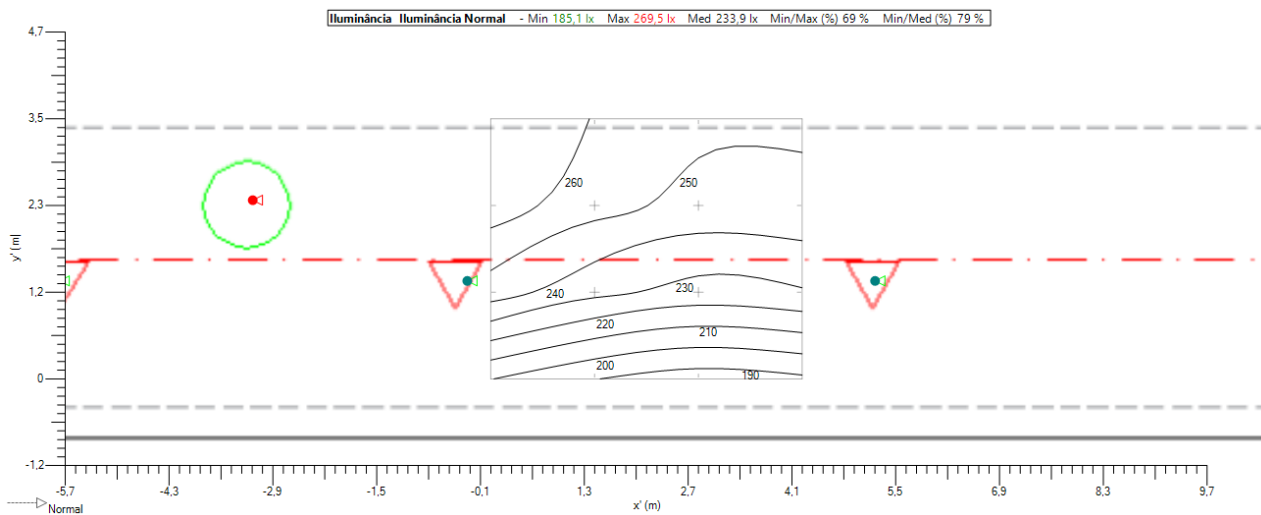


5.19. Z. TRANSIÇÃO NORTE - 3 - Normal

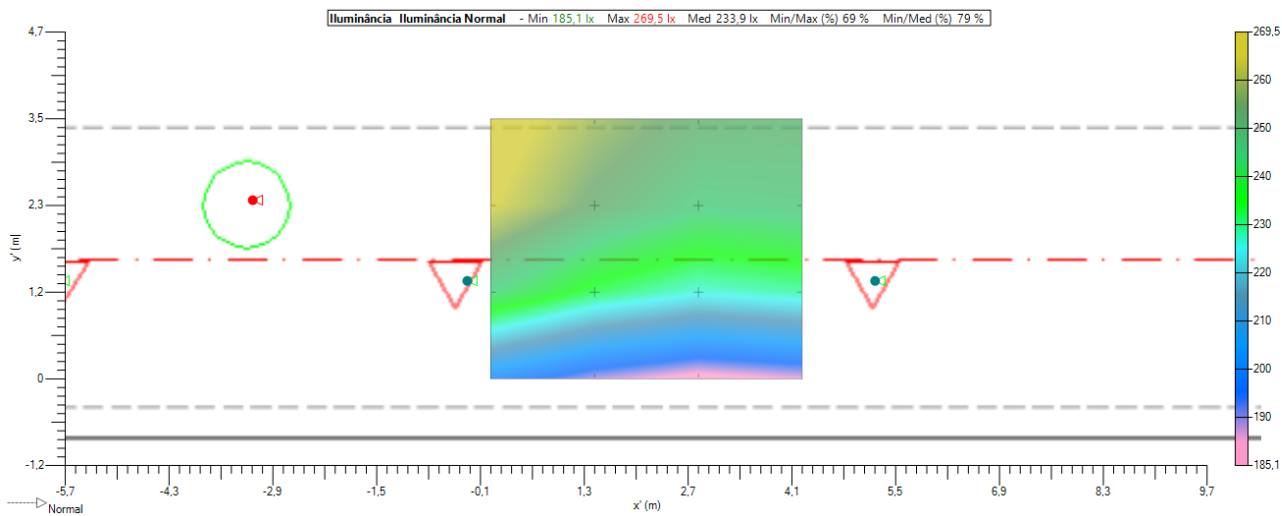
Resultados



Isolevel

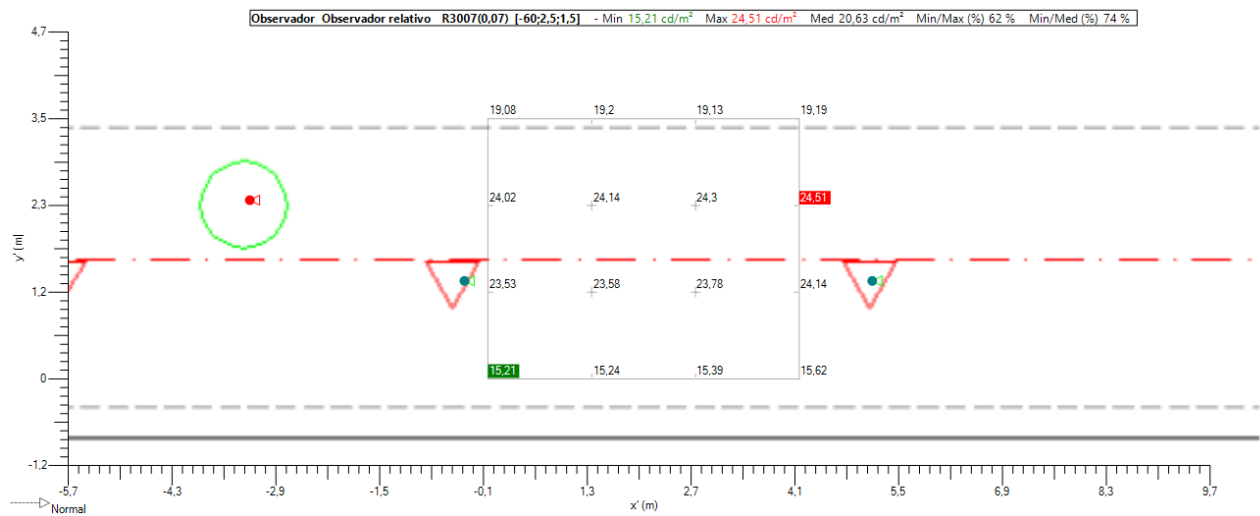


Sombreado

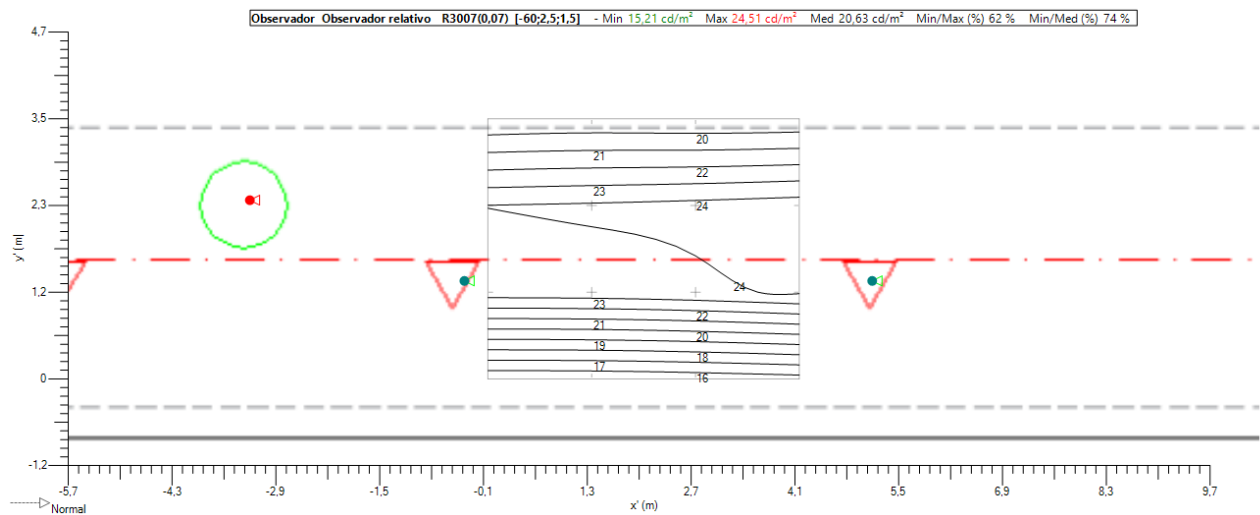


5.20. Z. TRANSIÇÃO NORTE - 3 - Luminance RTable - Relative 1

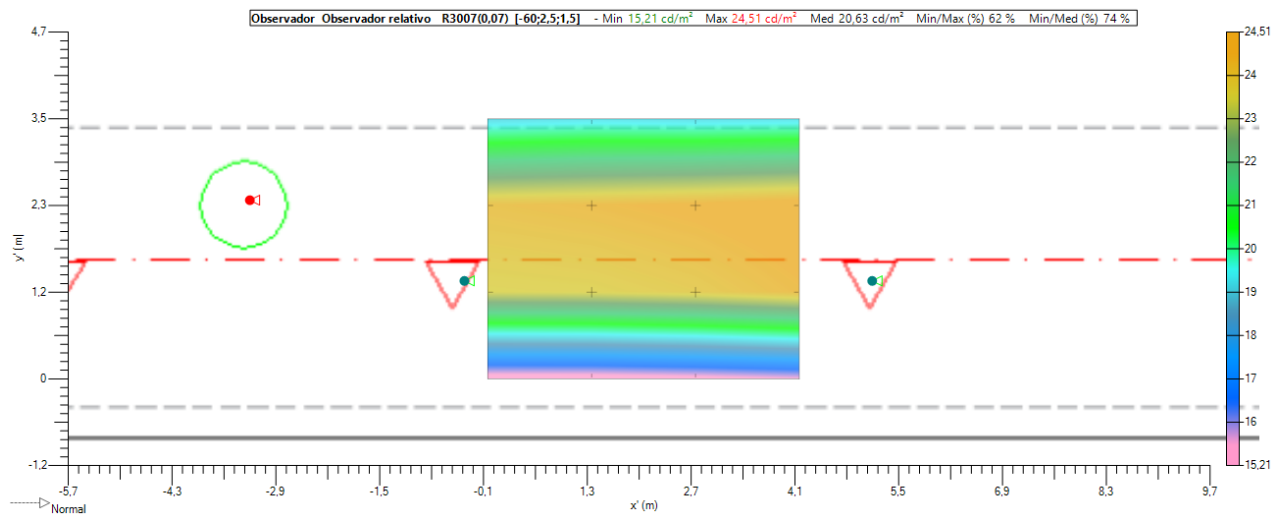
Resultados



Isolevel

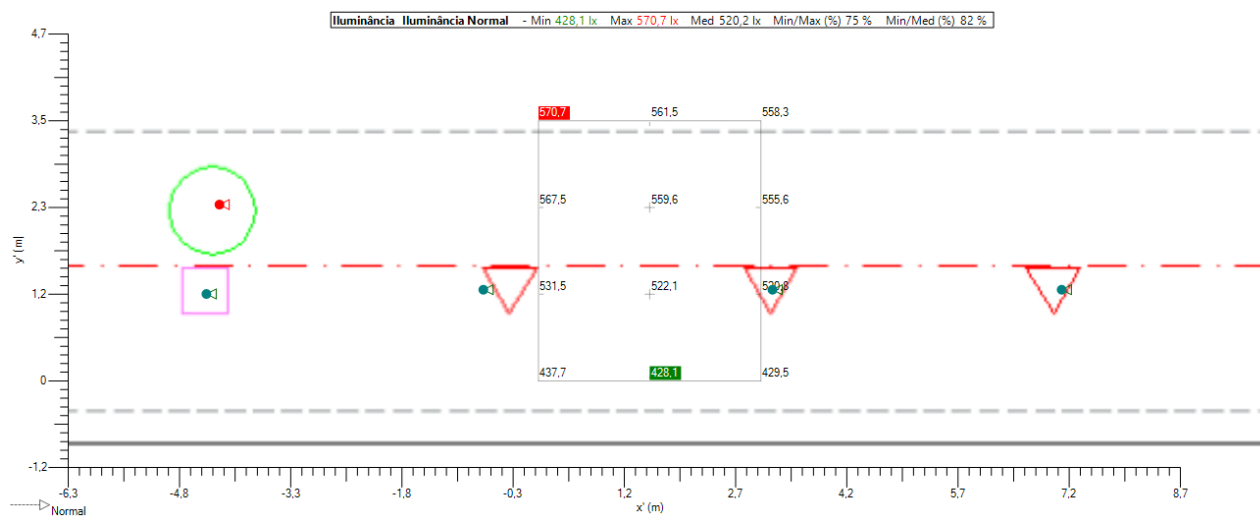


Sombreado

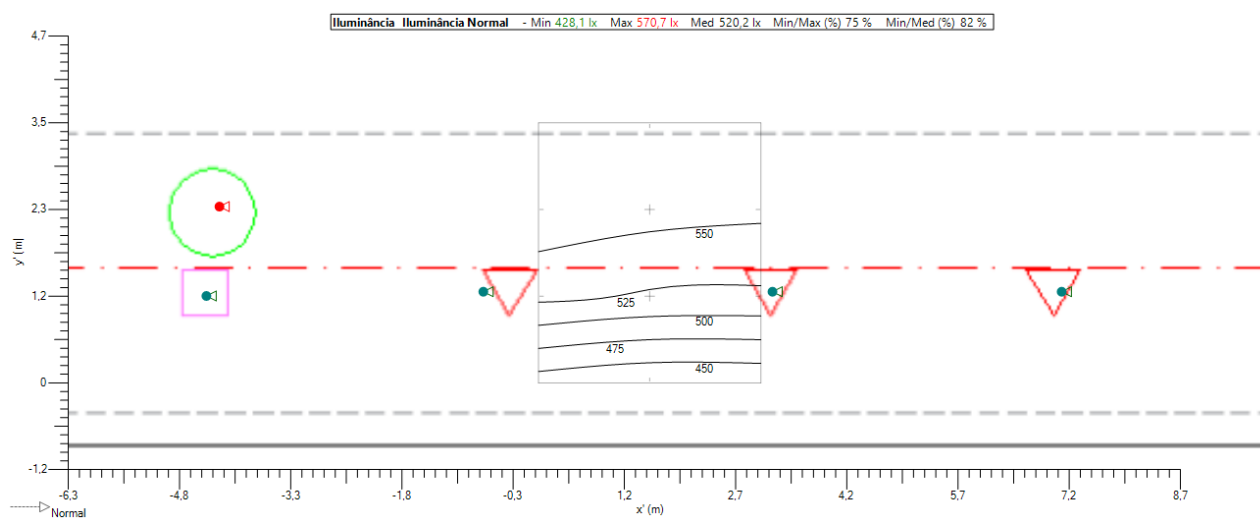


## 5.21. Z. TRANSIÇÃO NORTE - 2 - Normal

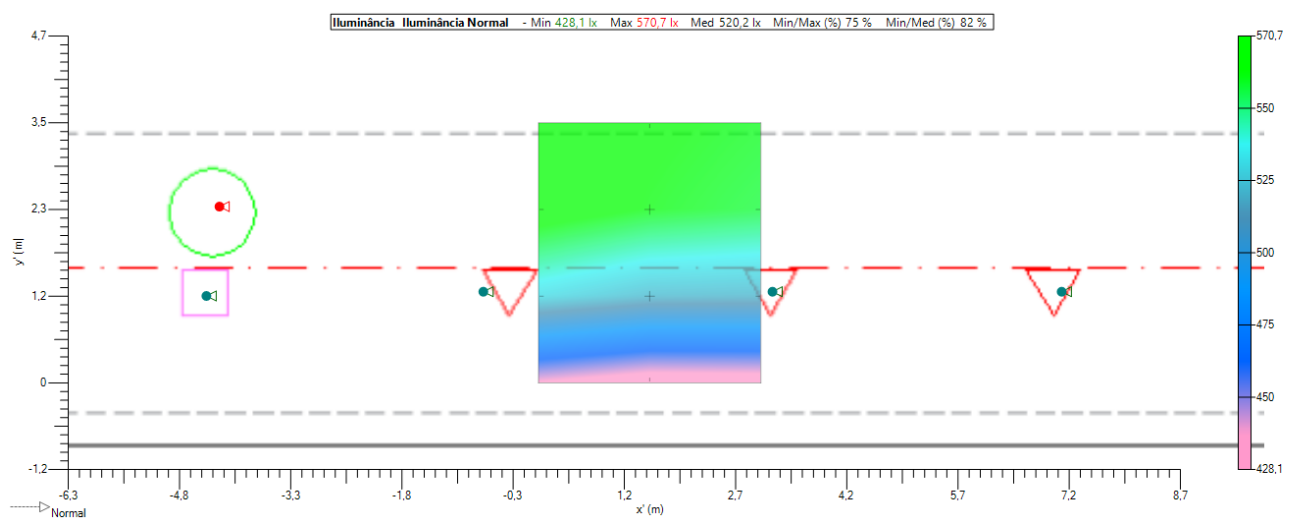
### Resultados



### Isolevel

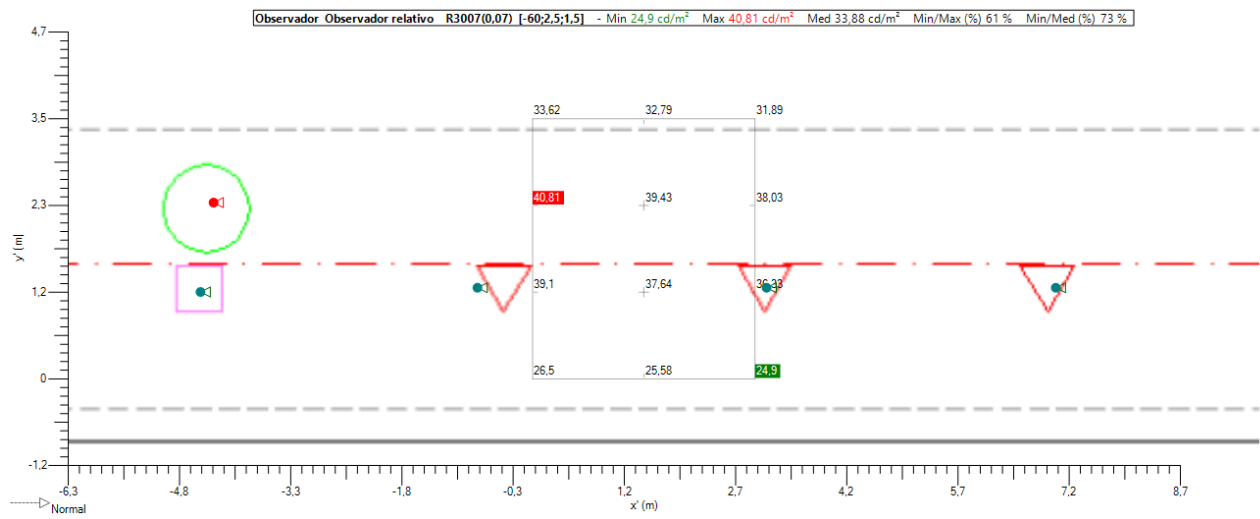


### Sombreado

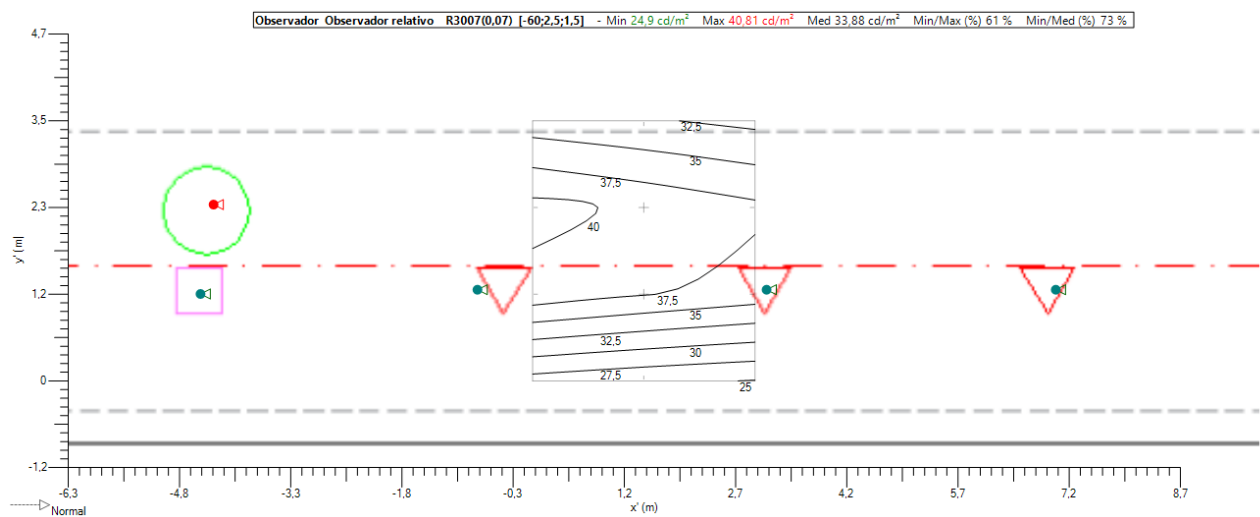


## 5.22. Z. TRANSIÇÃO NORTE - 2 - Luminance RTable - Relative 1

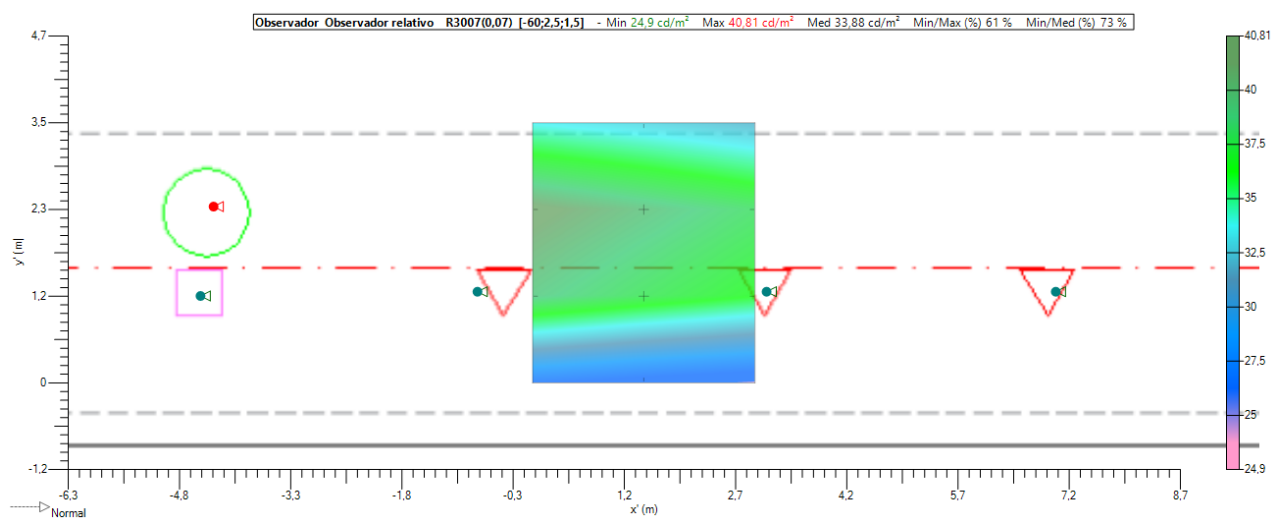
### Resultados



### Isolevel

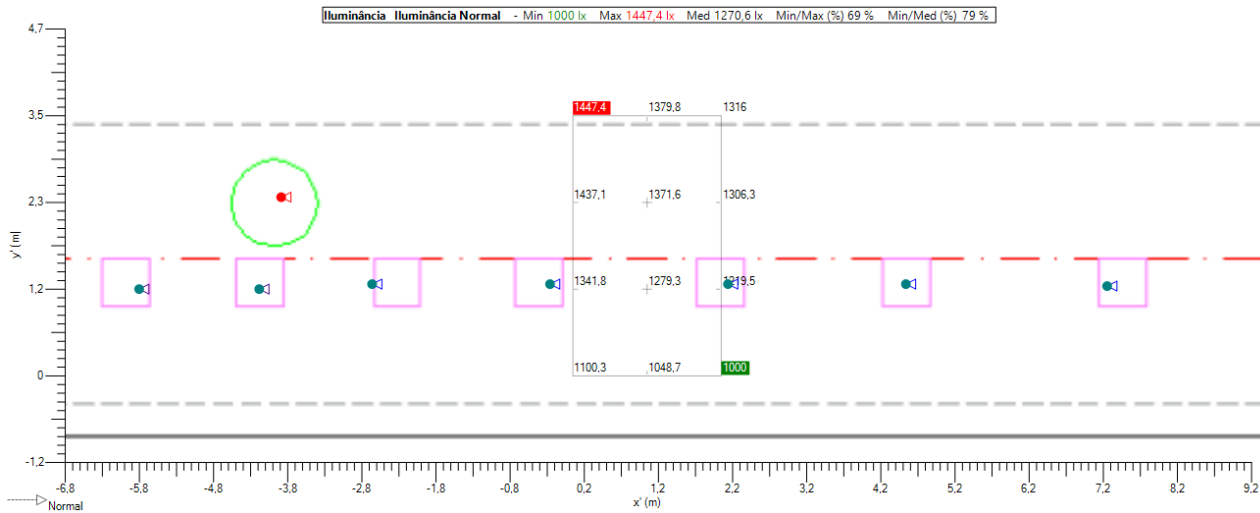


### Sombreado

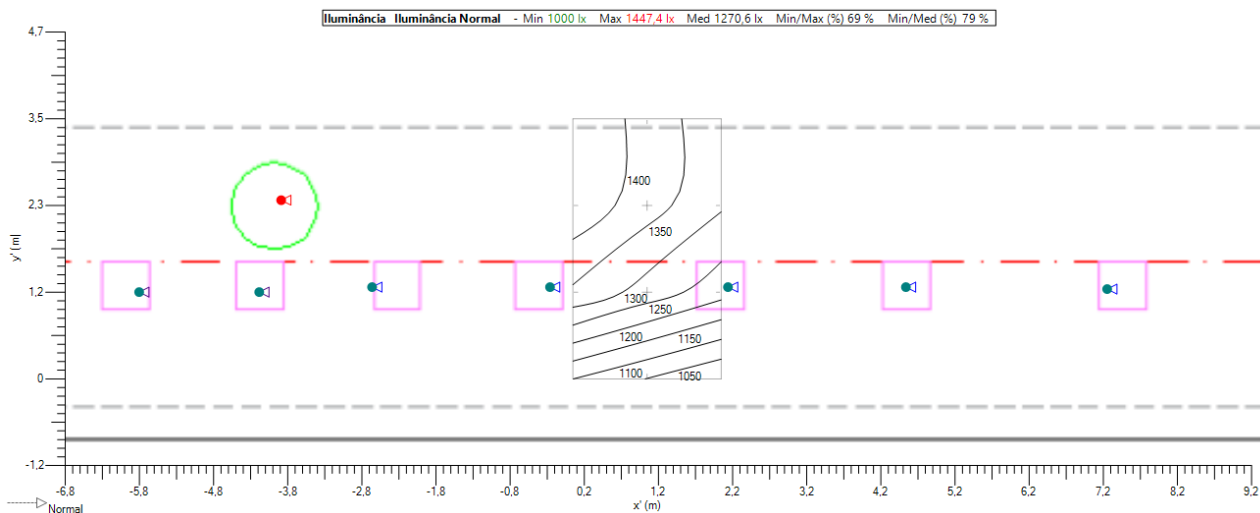


5.23. Z. TRANSIÇÃO NORTE - 1 - Normal

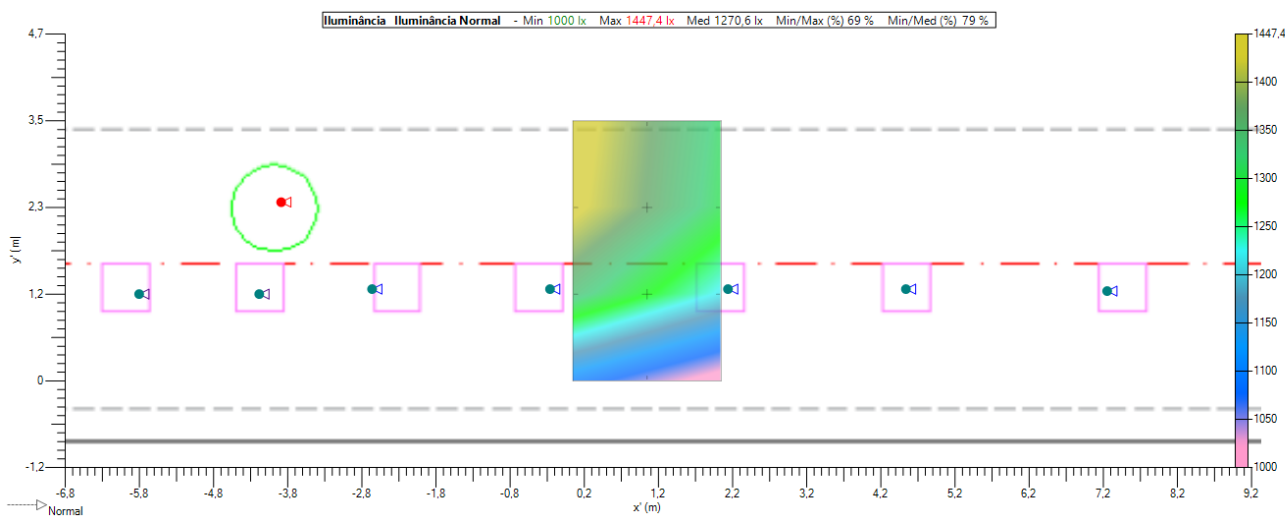
Resultados



Isolevel

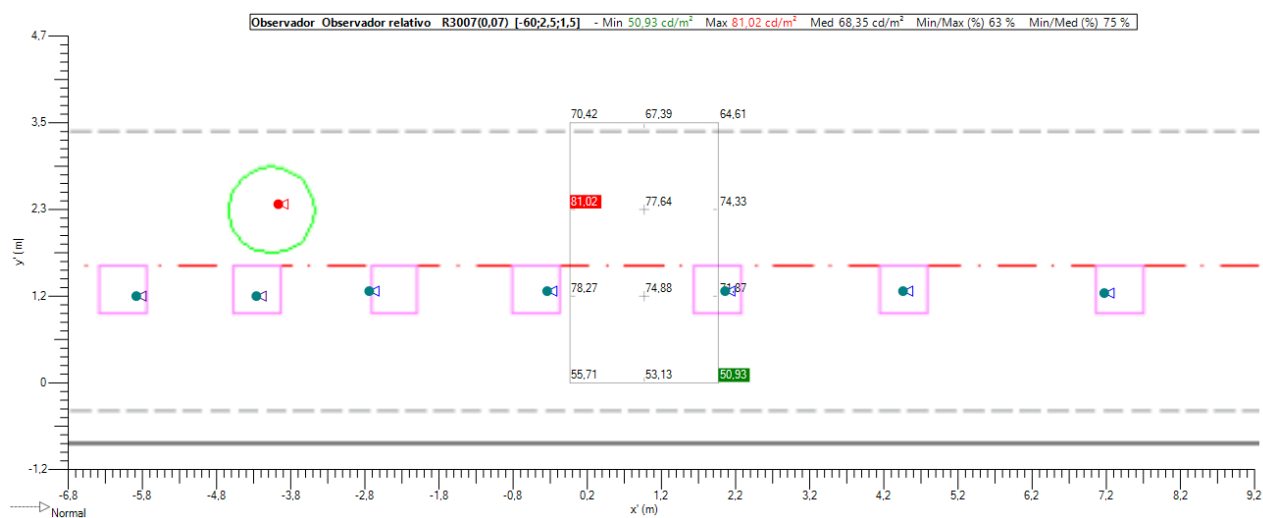


Sombreado

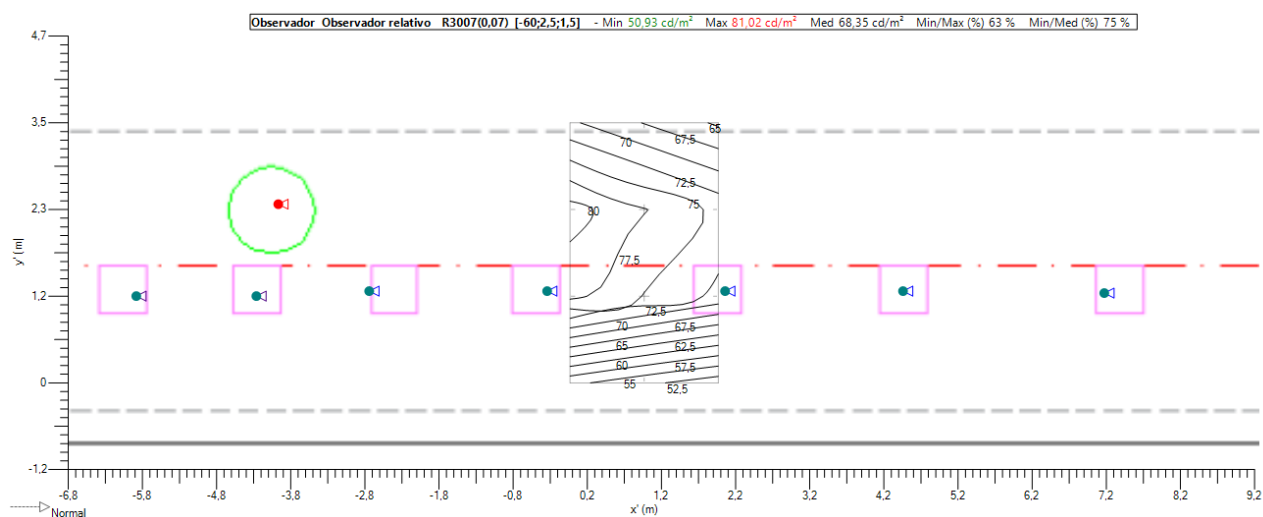


## 5.24. Z. TRANSIÇÃO NORTE - 1 - Luminance RTable - Relative 1

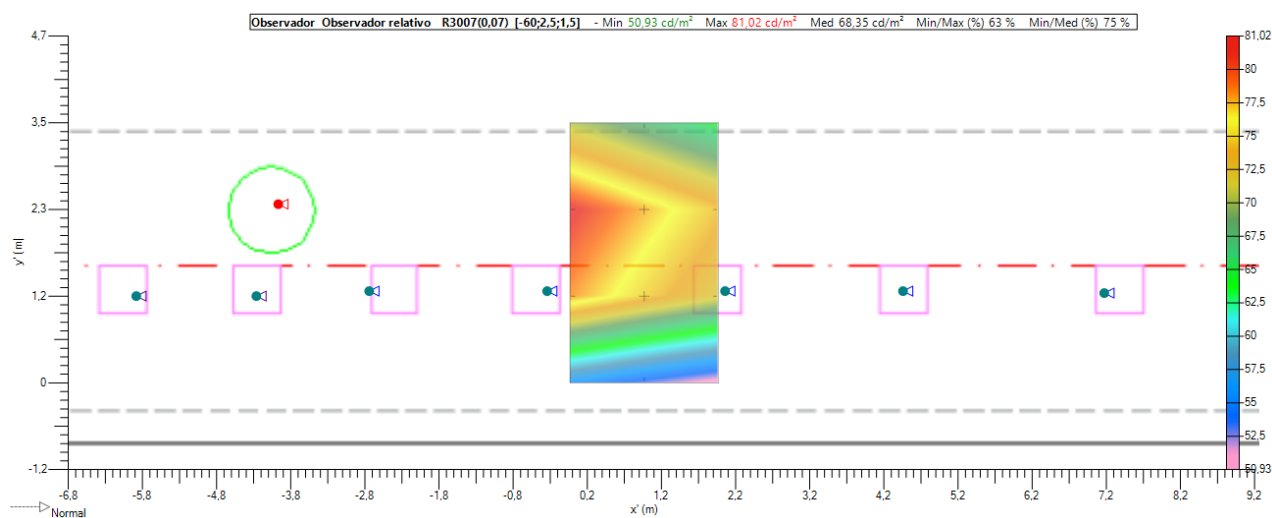
### Resultados



### Isolevel

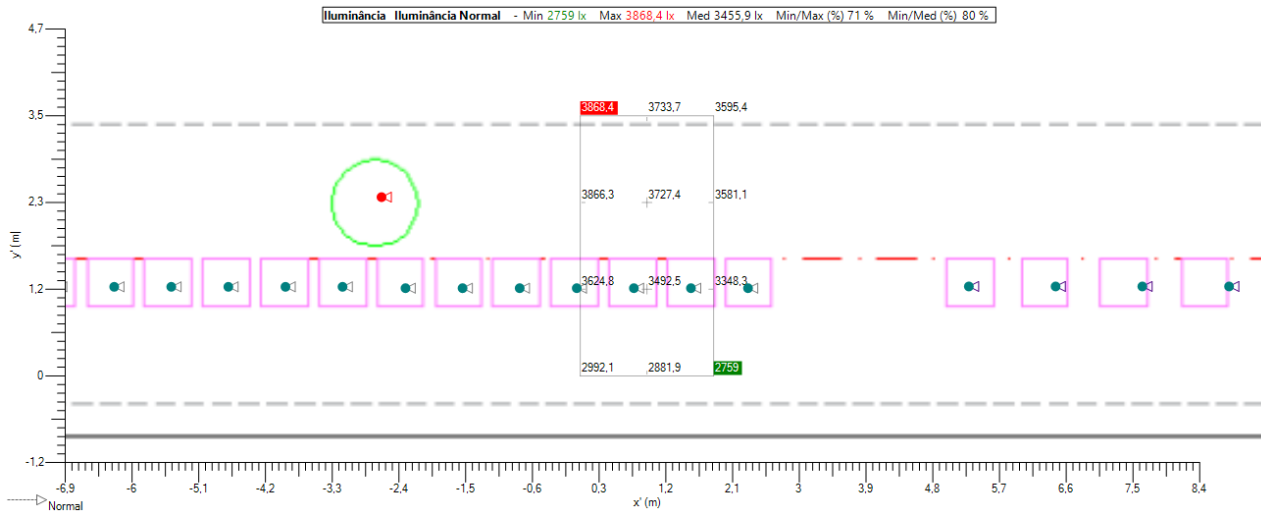


### Sombreado

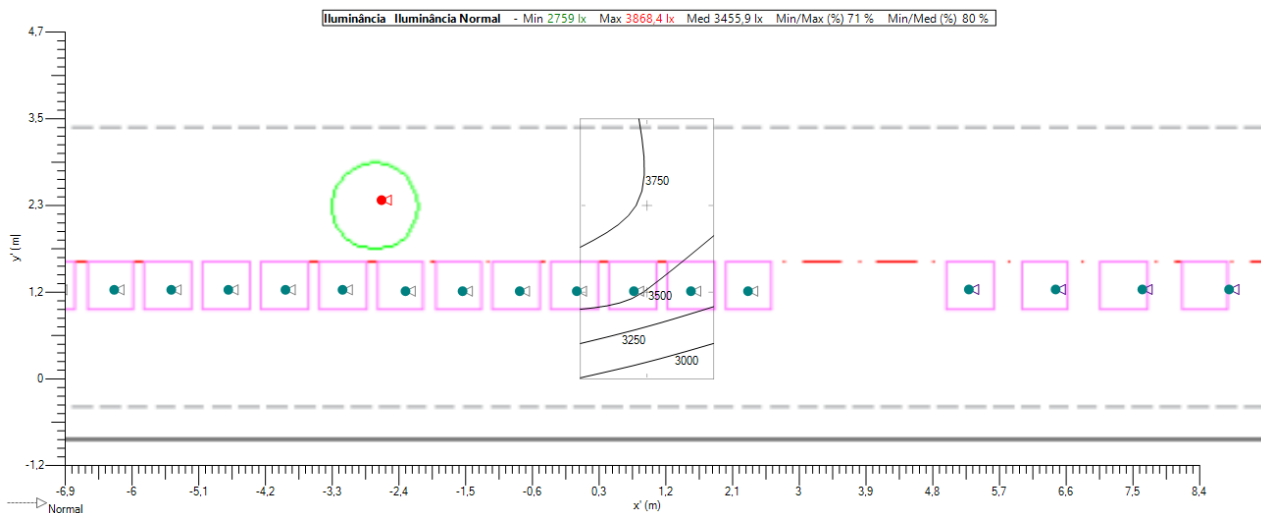


5.25. Z. ENTRADA NORTE\_2 - Normal

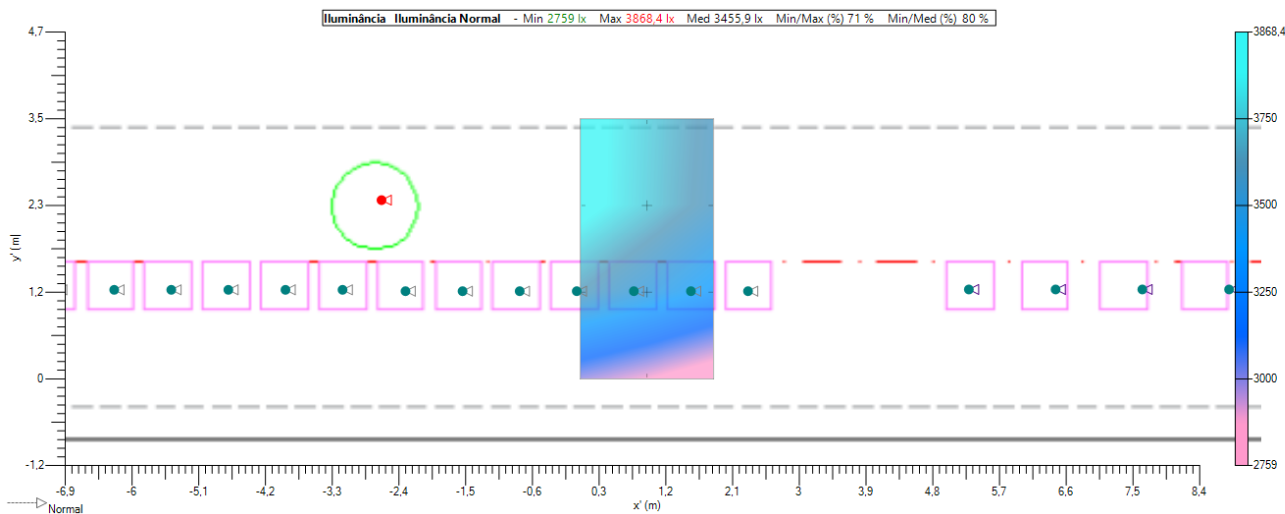
Resultados



Isolevel

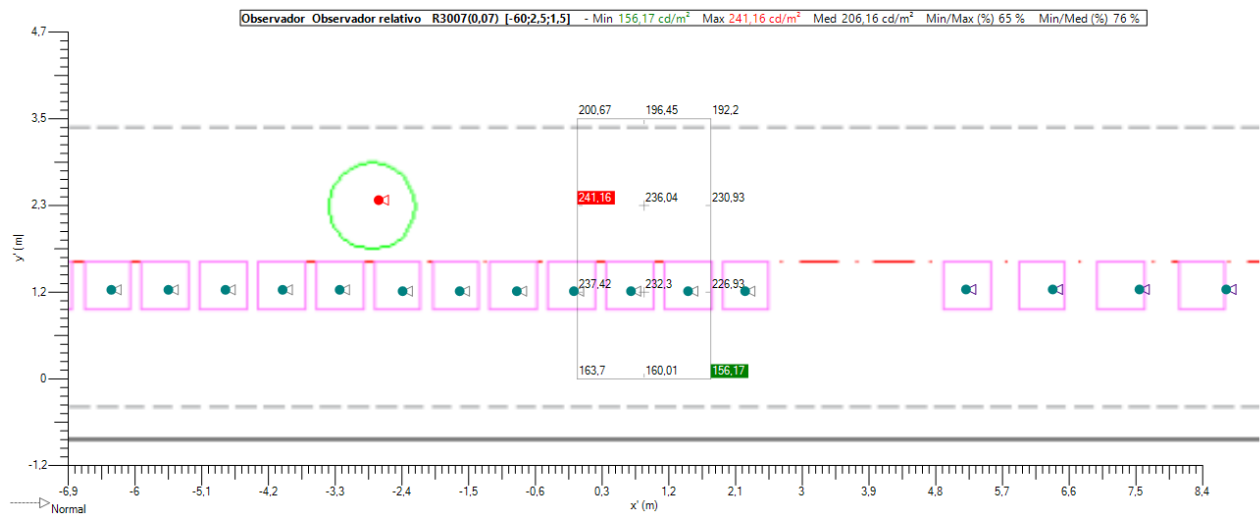


Sombreado

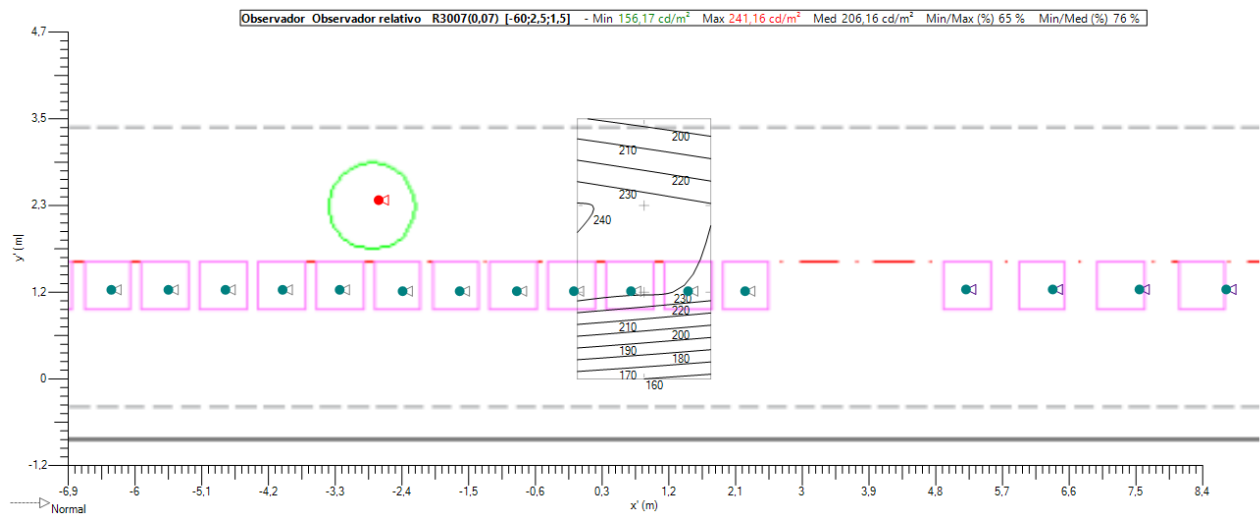


5.26. Z. ENTRADA NORTE\_2 - Luminance RTable - Relative 1

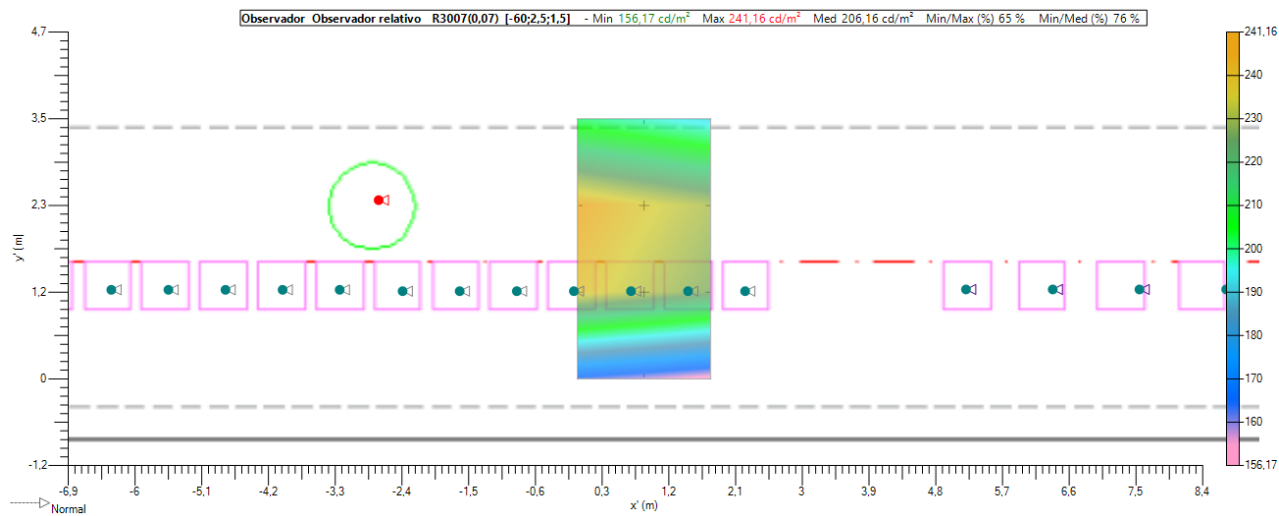
Resultados



Isolevel

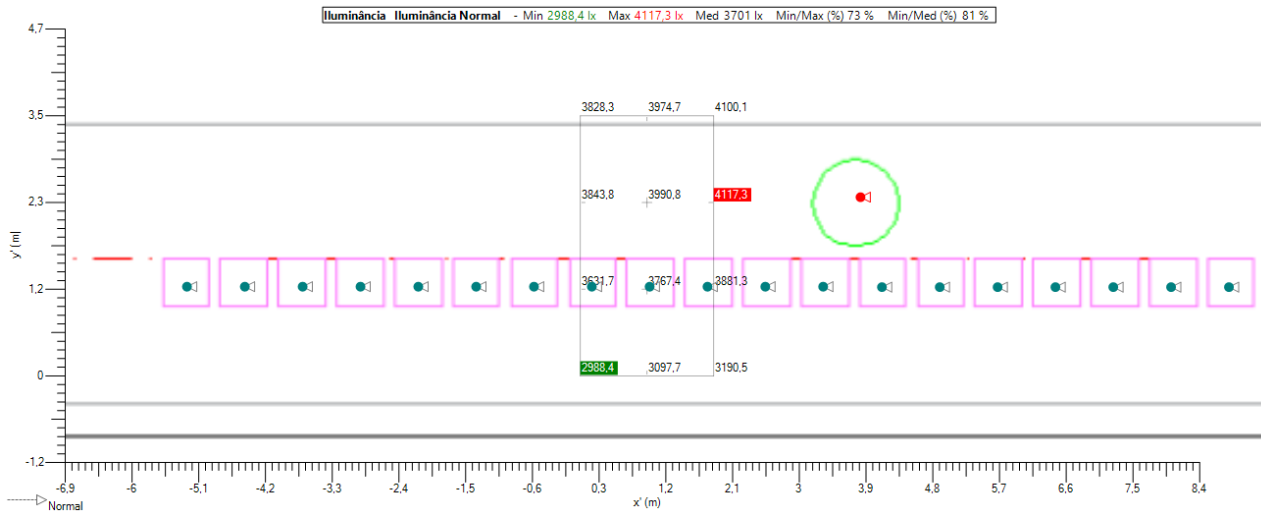


Sombreado

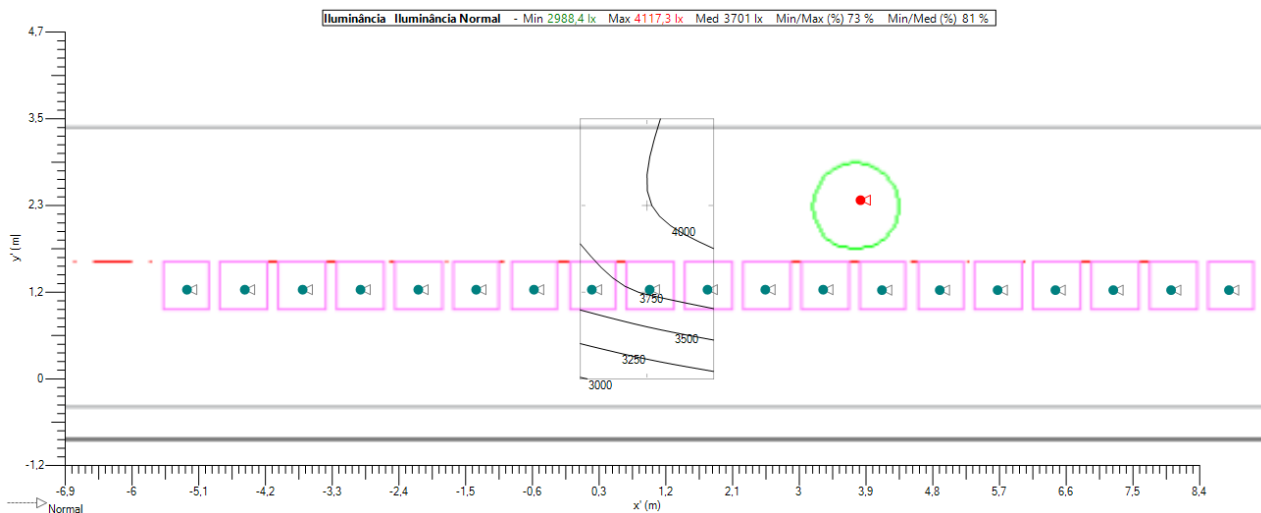


5.27. Z. ENTRADA NORTE\_1 - Normal

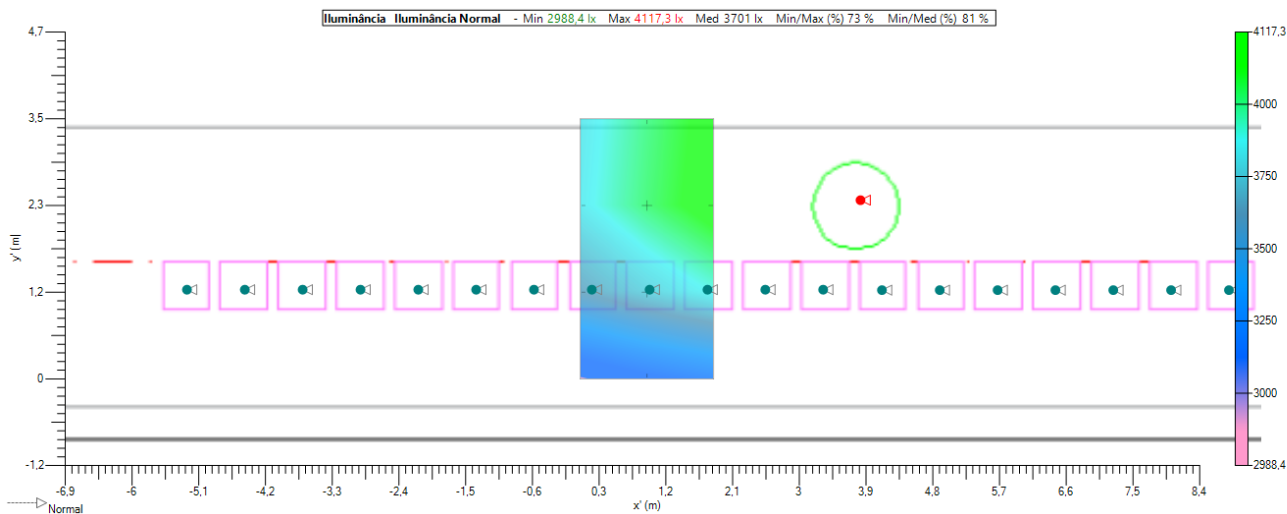
Resultados



Isolevel

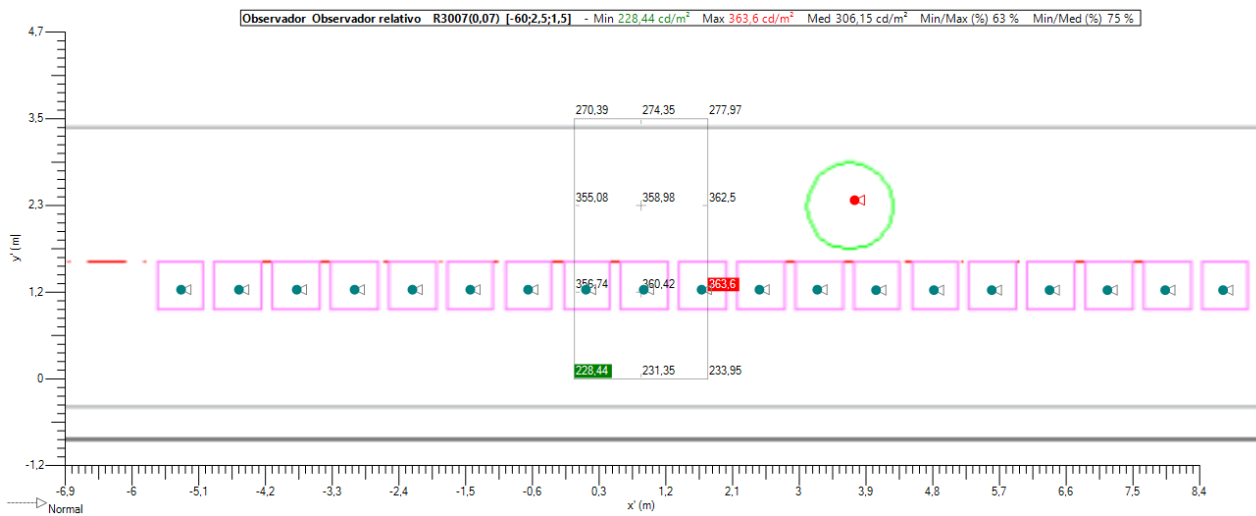


Sombreado

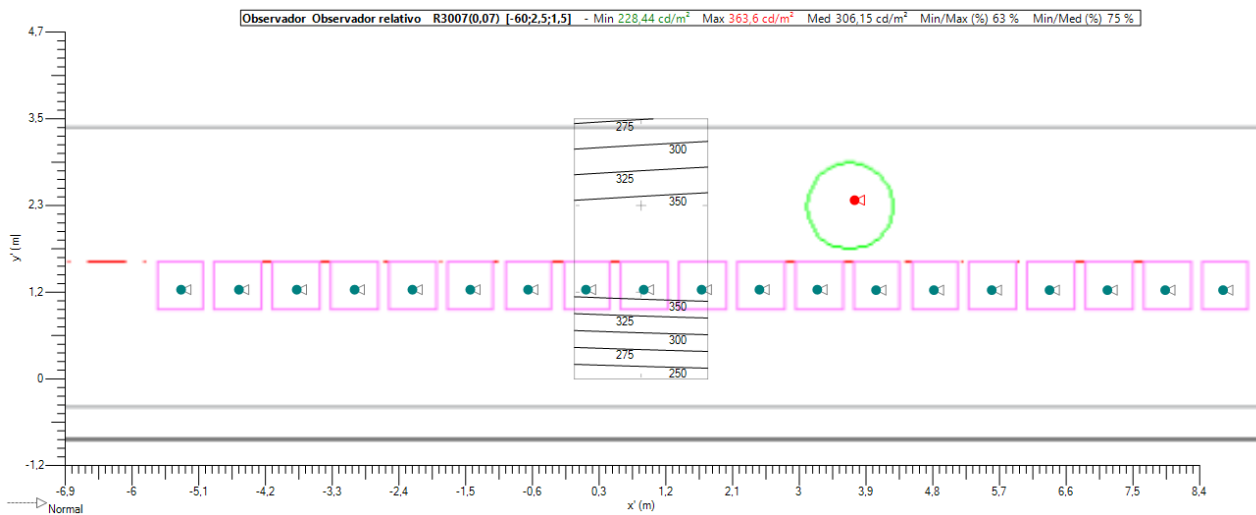


5.28. Z. ENTRADA NORTE\_1 - Luminance RTable - Relative 1

Resultados



Isolevel



Sombreado

