

Instalación :

Nº del proyecto : Ambiente A
Cliente : Leonardo Garcia
Responsable :
Fecha : 20.07.2022

Los siguientes valores se basan en los cálculos exactos en lámparas, luminarias calibradas y en su disposición nominal. En la práctica pueden producirse variaciones graduales. Quedan excluidos los derechos de garantía para los datos de luminarias. El fabricante no se responsabiliza de los daños subsiguientes o daños originados al usuario o a terceros.

Objeto :
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RELUX®

1 Datos de luminarias

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.1 Hoja de datos

Fabricante: Relux Demo

RELUX®

!0MJ2712L18830 Wall and ceiling luminaire-ceiling mounted Access Ceiling Mounted Luminaire

POSIVO® LED flat, wall and ceiling luminaire

primary optical cover: enclosure, of PMMA

light emission: direct distribution

installation type: surface-mounted

LED, luminous flux: 1.600 lm

luminous efficacy: 76lm/W

light colour: 830

colour temperature: 3000K

control gear: ECG, with terminal, 3-pole

mains connection: 220..240V

connected load: 21W, housing, round, of sheet steel, white

diameter: 380 mm

height: 65mm

ring, of aluminium, silver

protection rating (complete): IP40

insulation class (complete): insulation class I (protective earthing)

certification: CE

impact resistance: IK03

Datos de luminarias

Fotometría absoluta

Eficacia de luminaria : 83.33 lm/W

Clasificación : A42 ↓96.1% ↑3.9%

CIE Flux Codes : 46 77 94 96 100

UGR 4H 8H : 20.1 / 20.1

Potencia : 12 W

Flujo luminoso : 1000 lm

Equipamiento con

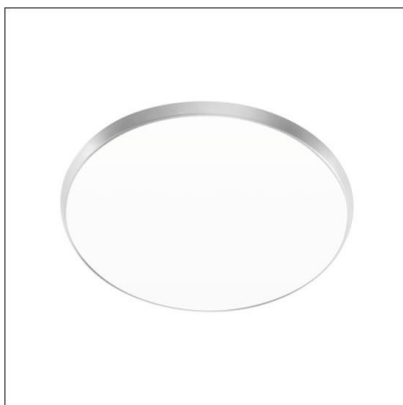
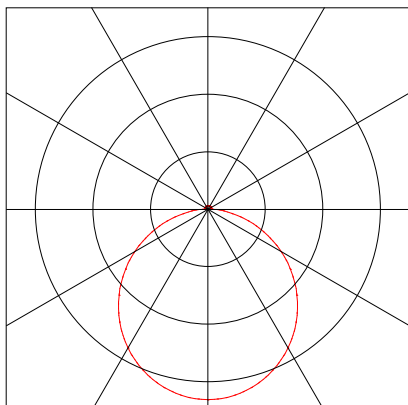
Cantidad : 1

Designación : LED 3000K /
CRI >= 80

Color : 3000K

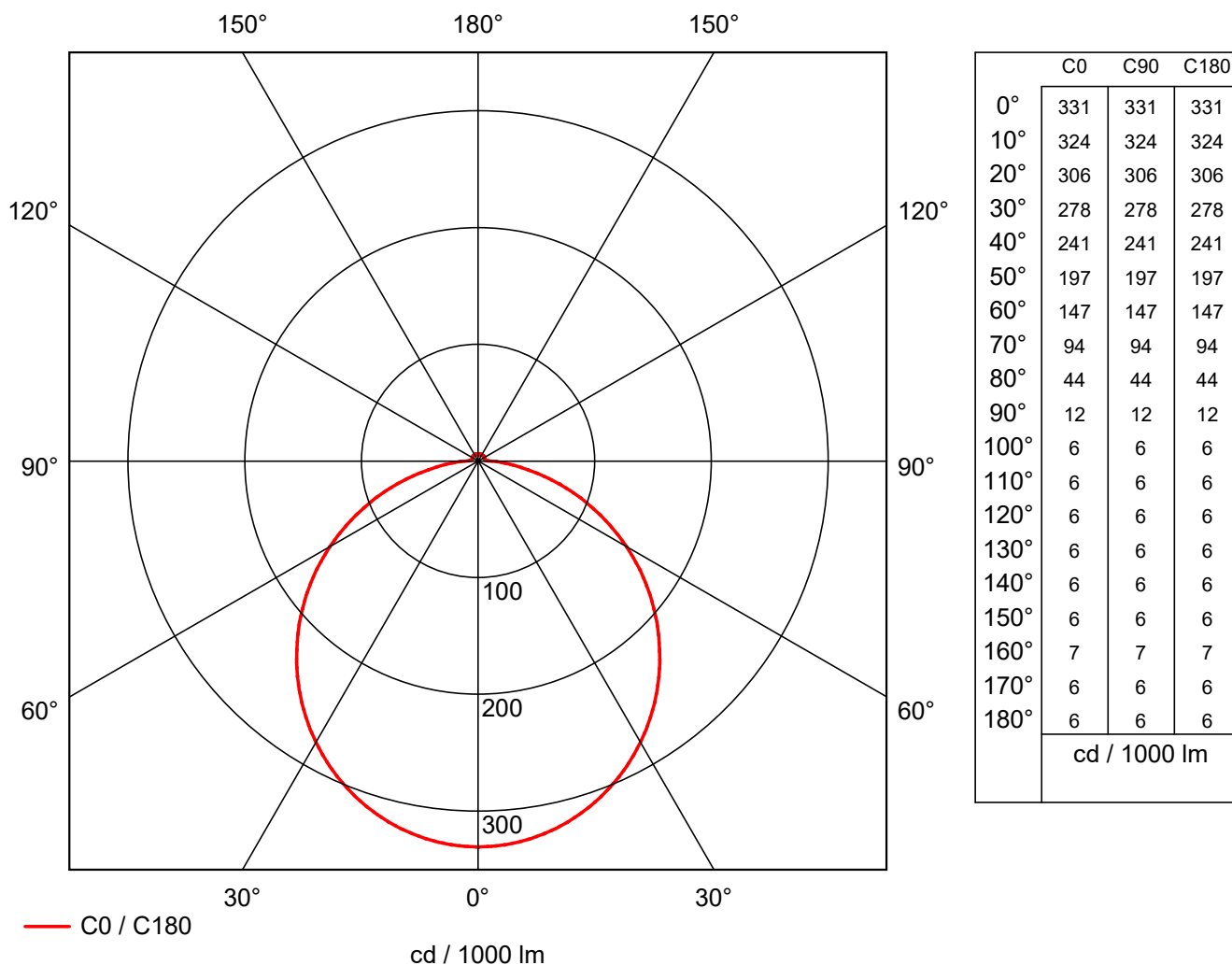
Reproducción cromática 80

Dimensiones : Ø380 mm x 65 mm



1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.2 CDL



Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 10
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rx523676484.ltd

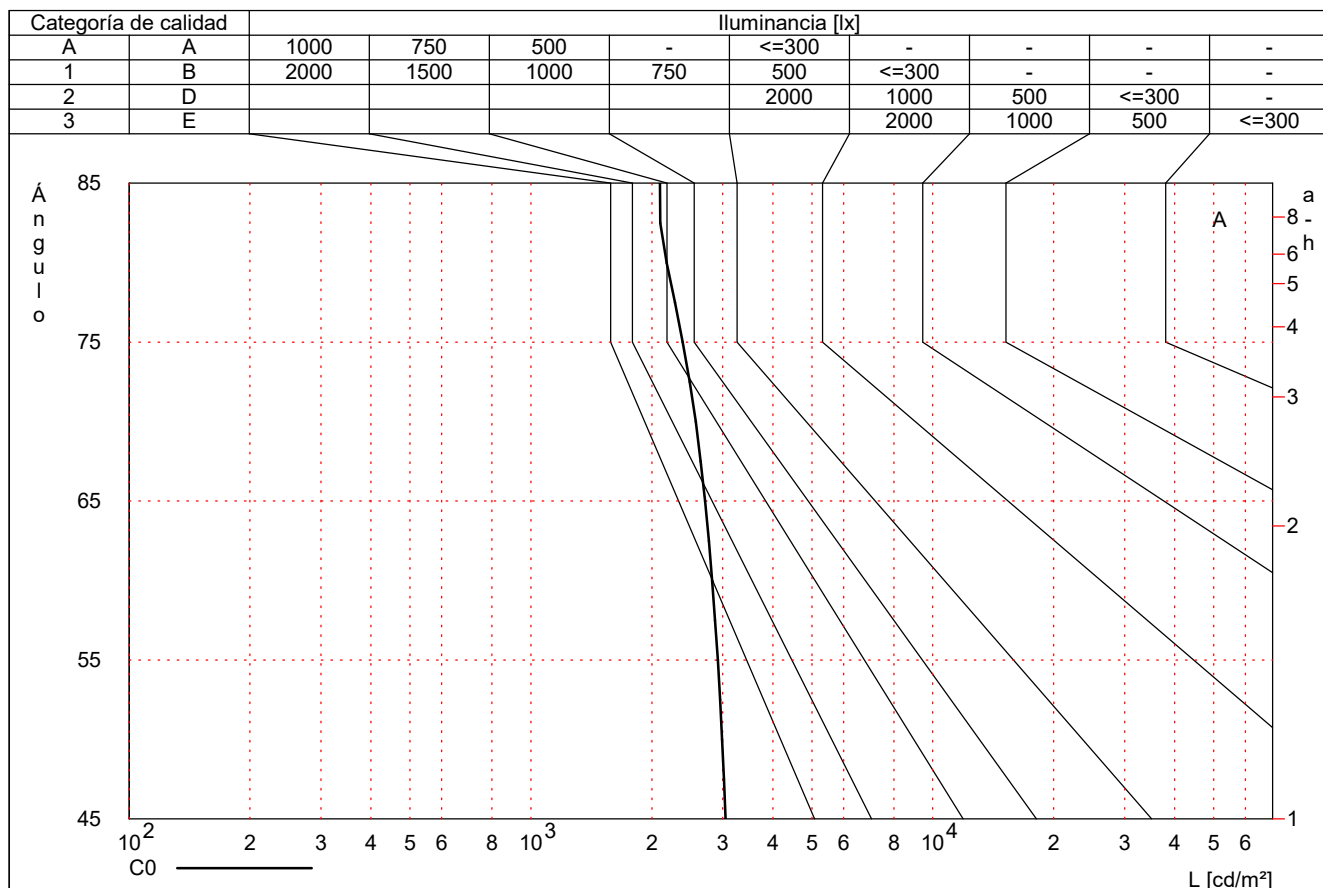
Eficacia de luminaria : 83.33 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

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 Instalación :
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1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.3 Diagrama Söllner



Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 10
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx523676484.ltd

Eficacia de luminaria : 83.33 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.4 Tabla de luminancia

| | C0 | C15 | C30 | C45 | C60 | C75 | C90 | C105 | C120 | C135 | C150 | C165 |
|-----|------|------|------|------|--------|--------|------|------|------|------|--------|--------|
| 65° | 2712 | 2712 | 2712 | 2712 | [2712] | [2712] | 2712 | 2712 | 2712 | 2712 | [2712] | [2712] |
| 70° | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 |
| 75° | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 |
| 80° | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 |
| 85° | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 |

| | C180 | C195 | C210 | C225 | C240 | C255 | C270 | C285 | C300 | C315 | C330 | C345 |
|-----|------|------|------|------|--------|--------|------|------|------|------|--------|--------|
| 65° | 2712 | 2712 | 2712 | 2712 | [2712] | [2712] | 2712 | 2712 | 2712 | 2712 | [2712] | [2712] |
| 70° | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 |
| 75° | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 |
| 80° | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 |
| 85° | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 |

Luminancia [cd/m²]

Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 10
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx523676484.ltd

Eficacia de luminaria : 83.33 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.5 Valoración del deslumbramiento según UGR

Grados de reflexión

| | | | | | | | | | | |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Techo | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Paredes | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Suelo | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

| Dimensiones del espacio | | Vista en dirección C0 | | | | | Vista en dirección C90 | | | | |
|-------------------------|-----|-----------------------|------|------|------|------|------------------------|------|------|------|------|
| x | y | | | | | | | | | | |
| 2H | 2H | 15.8 | 17.4 | 16.2 | 17.8 | 18.2 | 15.8 | 17.4 | 16.2 | 17.8 | 18.2 |
| | 3H | 17.4 | 18.9 | 17.9 | 19.3 | 19.7 | 17.4 | 18.9 | 17.9 | 19.3 | 19.7 |
| | 4H | 18.1 | 19.5 | 18.6 | 19.9 | 20.3 | 18.1 | 19.5 | 18.6 | 19.9 | 20.3 |
| | 6H | 18.7 | 19.9 | 19.1 | 20.3 | 20.8 | 18.7 | 19.9 | 19.1 | 20.3 | 20.8 |
| | 8H | 18.8 | 20.0 | 19.3 | 20.5 | 21.0 | 18.8 | 20.0 | 19.3 | 20.5 | 21.0 |
| | 12H | 19.0 | 20.1 | 19.4 | 20.6 | 21.1 | 19.0 | 20.1 | 19.4 | 20.6 | 21.1 |
| 4H | 2H | 16.6 | 17.9 | 17.0 | 18.3 | 18.8 | 16.6 | 17.9 | 17.0 | 18.3 | 18.8 |
| | 3H | 18.3 | 19.5 | 18.8 | 20.0 | 20.5 | 18.3 | 19.5 | 18.8 | 20.0 | 20.5 |
| | 4H | 19.2 | 20.2 | 19.7 | 20.7 | 21.2 | 19.2 | 20.2 | 19.7 | 20.7 | 21.2 |
| | 6H | 19.8 | 20.7 | 20.3 | 21.2 | 21.8 | 19.8 | 20.7 | 20.3 | 21.2 | 21.8 |
| | 8H | 20.1 | 20.9 | 20.6 | 21.4 | 22.0 | 20.1 | 20.9 | 20.6 | 21.4 | 22.0 |
| | 12H | 20.3 | 21.1 | 20.8 | 21.6 | 22.2 | 20.3 | 21.1 | 20.8 | 21.6 | 22.2 |
| 8H | 4H | 19.5 | 20.3 | 20.0 | 20.9 | 21.4 | 19.5 | 20.3 | 20.0 | 20.9 | 21.4 |
| | 6H | 20.2 | 21.0 | 20.8 | 21.5 | 22.1 | 20.2 | 21.0 | 20.8 | 21.5 | 22.1 |
| | 8H | 20.6 | 21.3 | 21.2 | 21.8 | 22.4 | 20.6 | 21.3 | 21.2 | 21.8 | 22.4 |
| | 12H | 20.9 | 21.5 | 21.5 | 22.0 | 22.6 | 20.9 | 21.5 | 21.5 | 22.0 | 22.6 |
| 12H | 4H | 19.5 | 20.3 | 20.1 | 20.8 | 21.4 | 19.5 | 20.3 | 20.1 | 20.8 | 21.4 |
| | 6H | 20.4 | 21.0 | 21.0 | 21.6 | 22.2 | 20.4 | 21.0 | 21.0 | 21.6 | 22.2 |
| | 8H | 20.8 | 21.3 | 21.3 | 21.9 | 22.5 | 20.8 | 21.3 | 21.3 | 21.9 | 22.5 |

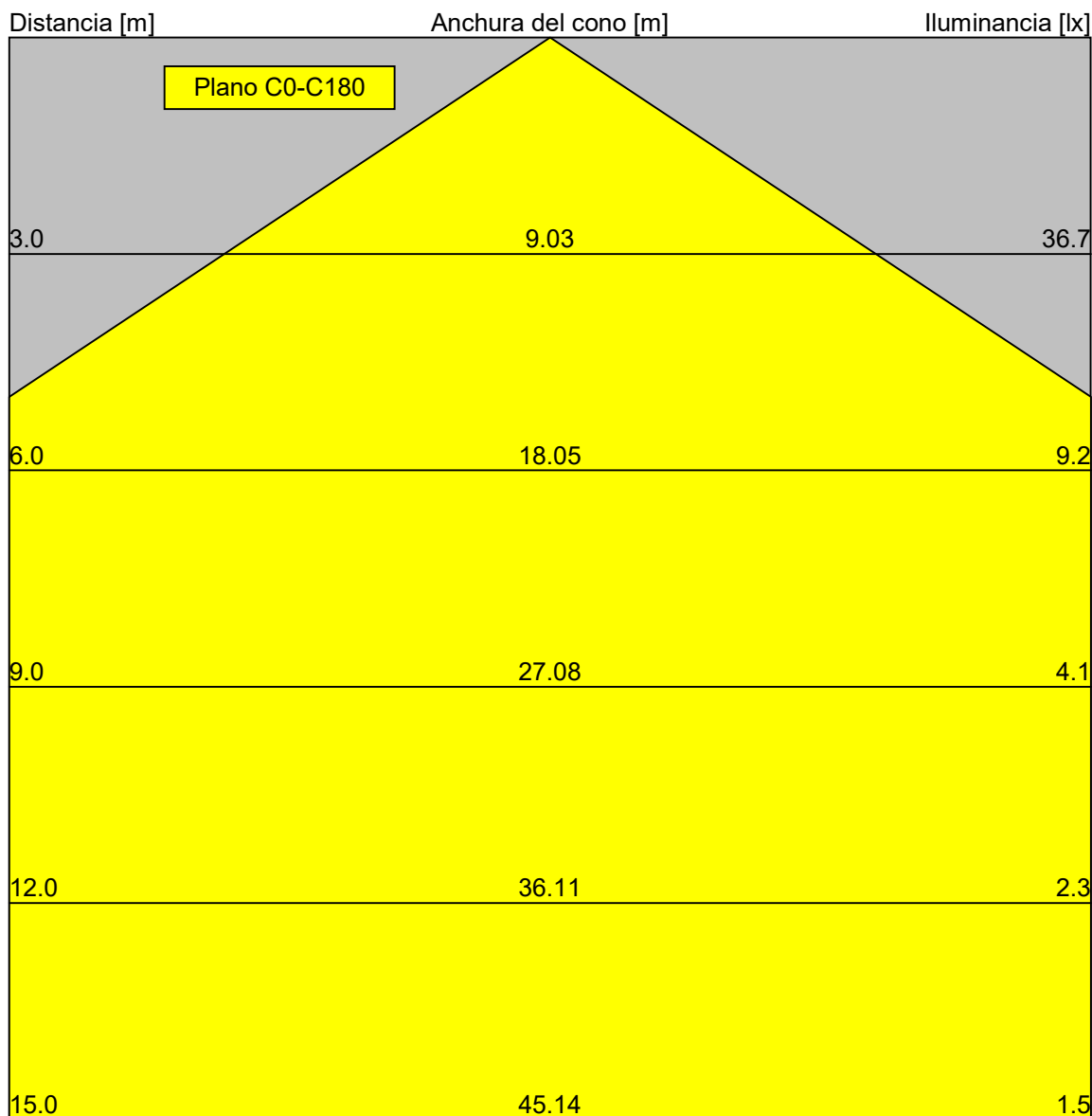
Distancia entre las luminarias: 0.25

Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 1C
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx523676484.ltd

Eficacia de luminaria : 83.33 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.6 Diagrama cónico



Nota: La iluminancia se calcula con $I(\gamma=0)$.

| | | | |
|--------------------|---------------------------------------|------------------------|----------------------|
| Fabricante | : Relux Demo | Eficacia de luminaria | : 83.33 lm/W (A42) |
| Número de pedido | : !0MJ2712L18830 | Distribución de la luz | : rotación simétrica |
| Nombre de la lum. | : Access Ceiling Mounted Luminaire | Ángulo de radiación | : 112.8° C0-C180 |
| Equipamiento | : 1 x LED 3000K / CRI >= 80 12 W / 10 | | |
| Dimensiones | : D 380 mm x H 65 mm | | |
| Nombre de archivo: | rlx523676484.idt | | |

Objeto :
Instalación :
Nº del proyecto : Ambiente A
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2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

Datos de productos:

Tipo Cant. Producto

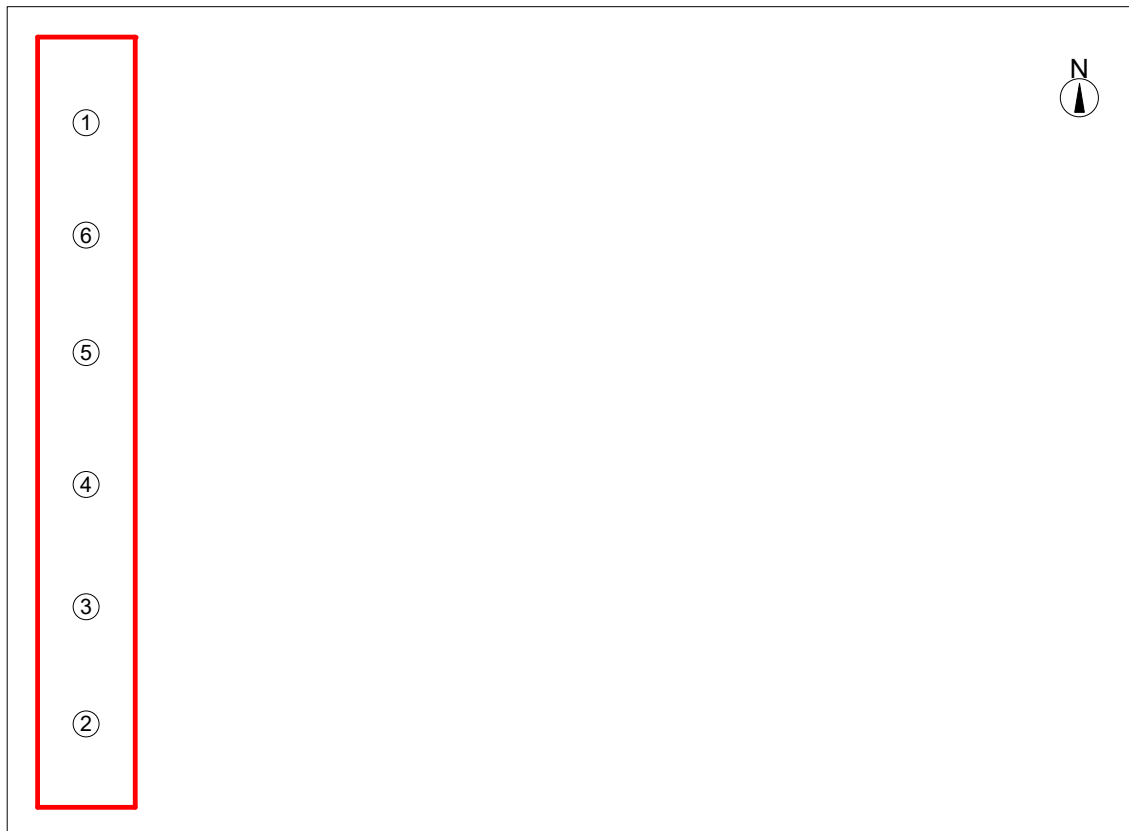
| | | |
|---|---|---|
| 3 | 6 | Relux Demo |
|  | | Nº de artículo : !0MJ2712L18830 |
| | | Nombre de la lum. : Access Ceiling Mounted Luminaire |
| | | Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 1000 lm |

2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

Piso con luminaria y posiciones del sensor:



| Nº | Centro | | | Ángulo de rotación alrededor de | | | Coordenadas del objetivo | | |
|---|--------|-------|-------|---------------------------------|--------|---------|--------------------------|--------|--------|
| | X [m] | Y [m] | Z [m] | Z [°] | C0 [°] | C90 [°] | Xa [m] | Ya [m] | Za [m] |
| Relux Demo Access Ceiling Mounted Luminaire !0MJ2712L18830 | | | | | | | | | |
| 1 | 1.00 | 14.00 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 14.00 | 0.00 |
| 2 | 1.00 | 1.70 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 1.70 | 0.00 |
| 3 | 1.00 | 4.10 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 4.10 | 0.00 |
| 4 | 1.00 | 6.60 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 6.60 | 0.00 |
| 5 | 1.00 | 9.30 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 9.30 | 0.00 |
| 6 | 1.00 | 11.70 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 11.70 | 0.00 |

Elementos de diseño

Superficie de medición

| Nº | xm[m] | ym[m] | zm[m] | Longitud | Anchura | Ángulo de rotación | | |
|---------------|-------|-------|-------|----------|---------|--------------------|-------|---------|
| | | | | | | Eje-z | Eje-L | Eje-Q |
| Niv. útil 1.1 | | | | | | | | |
| | 0.00 | 0.00 | 0.00 | 2.00 | 15.75 | 0.00 | 0.00 | 0.00 |
| M 1.1 (O) | 2.00 | 0.00 | 0.00 | 2.00 | 0.00 | 0.00 | 90.00 | -180.00 |
| M 1.2 (O) | 2.00 | 15.75 | 0.00 | 0.00 | 15.75 | 0.00 | 90.00 | -90.00 |
| M 1.3 (O) | 2.00 | 15.75 | 0.00 | 0.00 | 0.00 | 0.00 | 90.00 | 90.00 |
| M 1.4 (O) | 2.00 | 15.75 | 0.00 | 0.00 | 0.00 | 0.00 | 90.00 | -90.00 |
| M 1.5 (O) | 0.00 | 15.75 | 0.00 | 2.00 | 0.00 | 0.00 | 90.00 | -0.00 |
| M 1.6 (O) | 0.00 | 0.00 | 0.00 | 0.00 | 15.75 | 0.00 | 90.00 | 90.00 |

Objeto :
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2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

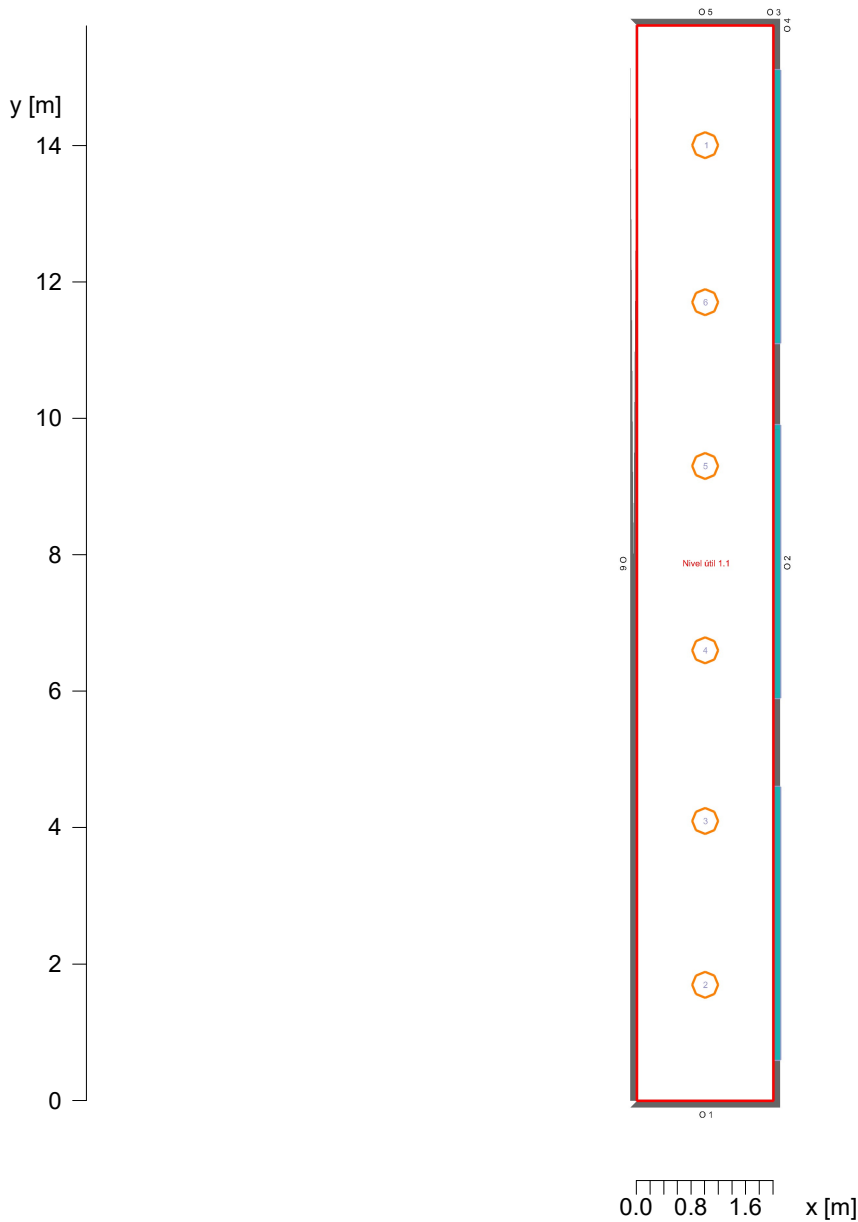
M 1.7 (D 0.00 15.75 3.00 2.00 15.75 180.00 0.00 180.00

Ventana

| Nº | Pared | x'[m] | y'[m] | Anchura | Altura | tau[%] | baquet. | sucied. |
|-------|-------|-------|-------|---------|--------|--------|---------|---------|
| F 2.3 | 2 | 2.00 | 9.90 | 4.00 | 0.70 | 80 | 1.00 | 0.90 |
| F 2.4 | 2 | 2.00 | 15.10 | 4.00 | 0.70 | 80 | 1.00 | 0.90 |
| F 2.5 | 2 | 2.00 | 4.60 | 4.00 | 0.70 | 80 | 1.00 | 0.90 |

2.1 Descripción Espacio 1

2.1.2 Planta horizontal



Datos del espacio:

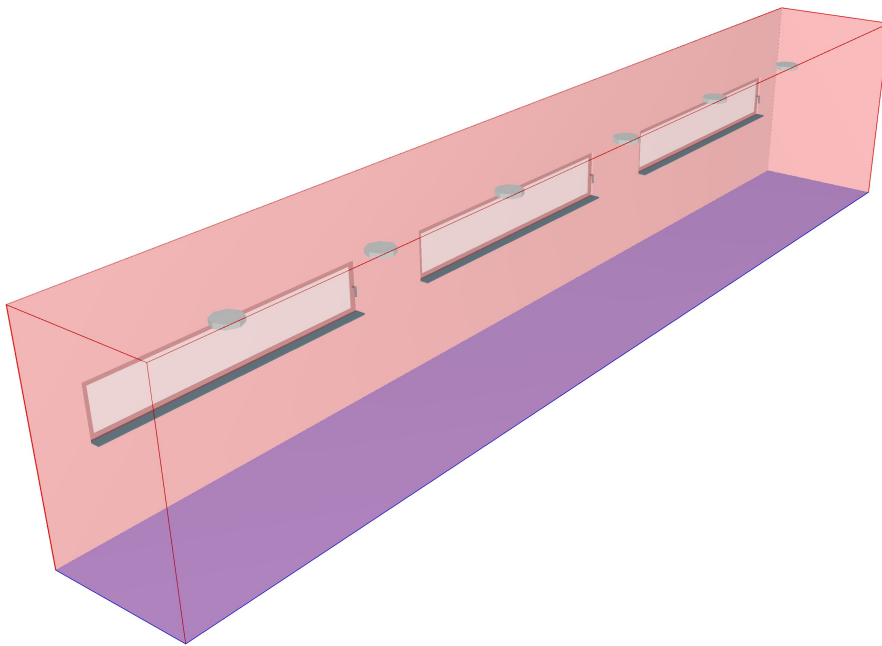
| | | |
|-------------------------------------|-------|---------|
| W1 : | 2.00 | 100.0 % |
| W2 : | 15.75 | 100.0 % |
| W3 : | 0.00 | 100.0 % |
| W4 : | 0.00 | 100.0 % |
| W5 : | 2.00 | 100.0 % |
| W6 : | 15.75 | 100.0 % |
| Suelo: | ----- | 100.0 % |
| Techo: | ----- | 100.0 % |
| Altura del espacio [m]: | | 3.00 |
| Altura del nivel útil [m]: | | 0.00 |
| Altura del nivel de luminarias [m]: | | 2.50 |

Grados de reflexión:

| |
|---------|
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |

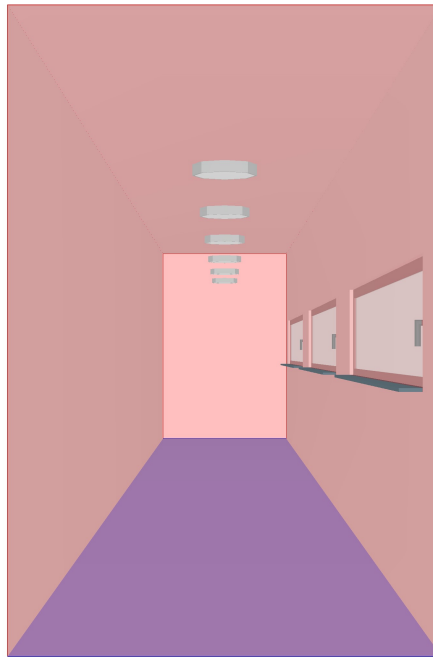
2.1 Descripción Espacio 1

2.1.3 Representación-3D, Vista 1



2.1 Descripción Espacio 1

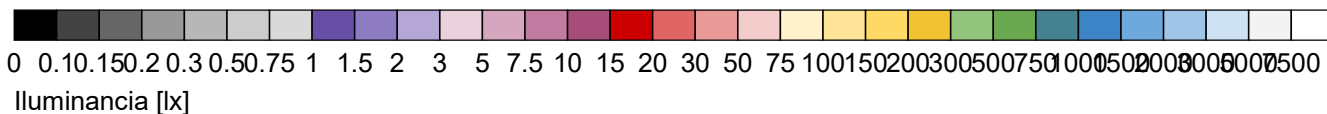
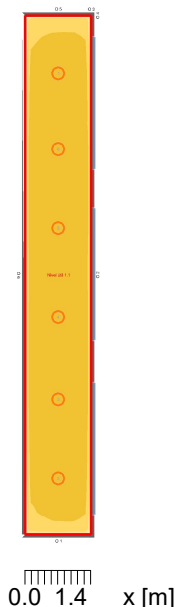
2.1.4 Representación-3D, Vista desde delante



2 Espacio 1

2.2 Resumen, Espacio 1

2.2.1 Resumen de los resultados, Superficie de evaluación 1



General

| | |
|---|--|
| Algoritmo de cálculo utilizada | Parte indirecta media |
| Altura del nivel de luminarias | 2.50 m |
| Factor de mant. | 0.80 |
| Flujo luminoso total de lámparas | 6000.00 lm |
| Potencia total | 72.0 W |
| Potencia total por superficie (31.51 m ²) | 2.29 W/m ² (1.03 W/m ² /100lx) |

Superficie de evaluación 1 Nivel útil 1.1

Perfil de usuario: Oficinas: Escritura, escritura a máquina, lectura, tratamiento de datos (Ra >80.00)

| | horizontal | | cilíndrico | |
|------------------|------------|-------------|------------|------------|
| Em | 223 lx | (>= 200 lx) | 192 lx | (>= 50 lx) |
| Emin | 174 lx | | 143 lx | |
| Emin/Em (Uo) | 0.78 | (>= 0.60) | 0.74 | (>= 0.10) |
| Emin/Emax (Ud) | 0.71 | | | |
| UGR (1.6H 12.4H) | <=18.7 | (< 19.00) | | |
| Posición | 0.00 m | | 0.45 m | |

Superficies principales

| | Em | | Uo | |
|---------------|--------|------------|------|-----------|
| M 1.7 (Techo) | 176 lx | (>= 30 lx) | 0.78 | (>= 0.10) |
| M 1.1 (Pared) | 177 lx | (>= 50 lx) | 0.80 | (>= 0.10) |
| M 1.2 (Pared) | 209 lx | (>= 50 lx) | 0.68 | (>= 0.10) |
| M 1.4 (Pared) | 148 lx | (>= 50 lx) | 0.44 | (>= 0.10) |
| M 1.5 (Pared) | 175 lx | (>= 50 lx) | 0.82 | (>= 0.10) |
| M 1.6 (Pared) | 195 lx | (>= 50 lx) | 0.70 | (>= 0.10) |

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2 Espacio 1

2.2 Resumen, Espacio 1

2.2.1 Resumen de los resultados, Superficie de evaluación 1

Tipo Cant. Producto

| | | |
|---|---|---|
| 3 | 6 | Relux Demo |
|  | | Nº de artículo : !0MJ2712L18830 |
| | | Nombre de la lum. : Access Ceiling Mounted Luminaire |
| | | Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 1000 lm |

2 Espacio 1

2.3 Resultados del cálculo, Espacio 1

2.3.1 Tabla, Suelo (E)

| | | | | | | |
|----|-----|-----|-----|--------------|-----|--------------|
| | 168 | 171 | 175 | 176 | 172 | (140) |
| | 170 | 174 | 178 | 180 | 174 | 167 |
| | 175 | 179 | 183 | 184 | 180 | 177 |
| | 184 | 187 | 191 | 191 | 187 | 185 |
| | 191 | 195 | 198 | 198 | 195 | 193 |
| 14 | 197 | 201 | 204 | 204 | 201 | 198 |
| | 201 | 205 | 208 | 208 | 205 | 202 |
| | 205 | 209 | 212 | 211 | 208 | 205 |
| | 208 | 211 | 214 | 215 | 212 | 209 |
| | 210 | 214 | 218 | 219 | 215 | 212 |
| | 213 | 217 | 221 | 222 | 219 | 216 |
| 12 | 216 | 220 | 225 | 226 | 224 | 220 |
| | 219 | 223 | 227 | 229 | 226 | 224 |
| | 221 | 226 | 230 | 230 | 228 | 224 |
| | 222 | 227 | 232 | 232 | 229 | 225 |
| | 223 | 227 | 231 | 232 | 229 | 227 |
| | 223 | 226 | 230 | 232 | 230 | 228 |
| 10 | 223 | 227 | 231 | 232 | 230 | 228 |
| | 223 | 227 | 231 | [233] | 230 | 228 |
| | 222 | 225 | 231 | 232 | 230 | 228 |
| | 220 | 224 | 230 | 231 | 229 | 226 |
| | 217 | 223 | 227 | 227 | 225 | 223 |
| | 214 | 219 | 223 | 223 | 221 | 216 |
| 8 | 212 | 217 | 222 | 221 | 217 | 212 |
| | 212 | 216 | 221 | 220 | 216 | 211 |
| | 214 | 217 | 220 | 220 | 218 | 214 |
| | 216 | 219 | 222 | 223 | 221 | 218 |
| | 217 | 221 | 225 | 226 | 224 | 222 |
| | 217 | 222 | 228 | 227 | 225 | 221 |
| 6 | 218 | 222 | 229 | 229 | 226 | 222 |
| | 218 | 223 | 227 | 230 | 227 | 224 |
| | 218 | 223 | 227 | 230 | 228 | 224 |
| | 218 | 223 | 228 | 229 | 227 | 224 |
| | 218 | 223 | 228 | 230 | 227 | 224 |
| | 218 | 222 | 228 | 230 | 227 | 224 |
| 4 | 217 | 222 | 228 | 229 | 225 | 223 |
| | 216 | 220 | 227 | 227 | 224 | 222 |
| | 213 | 217 | 222 | 223 | 221 | 217 |



Parte1

| | | |
|--------------------|-----------|-------------------|
| Iluminancia media | Em | : 212 lx |
| Iluminancia mínima | Emin | : 140 lx |
| Iluminancia máxima | Emax | : 233 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.52 (0.66) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.67 (0.60) |

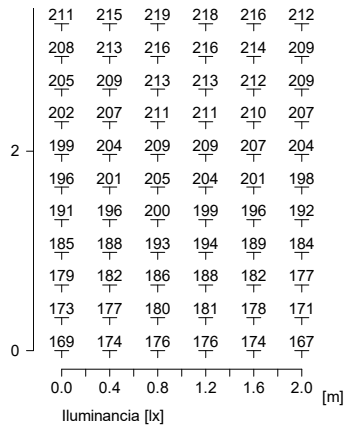
Objeto :
 Instalación :
 N° del proyecto : Ambiente A
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2 Espacio 1

2.3 Resultados del cálculo, Espacio 1

2.3.1 Tabla, Suelo (E)



Parte2

Objeto :
 Instalación :
 N° del proyecto : Ambiente A
 Fecha : 20.07.2022



2.3 Resultados del cálculo, Espacio 1

2.3.2 Tabla, Nivel útil 1.1 (E)

| | | | | | | |
|----|-------|-----|-----|-----|------------|-----|
| | (174) | 175 | 181 | 181 | 180 | 177 |
| | 178 | 185 | 189 | 190 | 189 | 183 |
| | 184 | 195 | 197 | 197 | 198 | 191 |
| | 193 | 202 | 204 | 205 | 206 | 199 |
| | 199 | 208 | 211 | 211 | 212 | 205 |
| 14 | 204 | 214 | 216 | 217 | 217 | 213 |
| | 208 | 217 | 219 | 220 | 221 | 217 |
| | 211 | 220 | 222 | 223 | 224 | 219 |
| | 213 | 222 | 224 | 225 | 228 | 223 |
| | 216 | 225 | 228 | 229 | 232 | 226 |
| | 219 | 229 | 232 | 233 | 236 | 220 |
| 12 | 223 | 233 | 236 | 237 | 238 | 232 |
| | 226 | 236 | 239 | 240 | 243 | 236 |
| | 228 | 237 | 240 | 241 | 243 | 237 |
| | 228 | 238 | 240 | 242 | 242 | 237 |
| | 228 | 237 | 240 | 242 | 244 | 237 |
| | 228 | 237 | 240 | 242 | 243 | 238 |
| 10 | 228 | 238 | 240 | 242 | 242 | 238 |
| | 229 | 238 | 241 | 242 | 245 | 238 |
| | 228 | 238 | 240 | 242 | 243 | 238 |
| | 227 | 236 | 238 | 240 | 240 | 236 |
| | 224 | 233 | 235 | 236 | 238 | 232 |
| | 221 | 230 | 231 | 232 | 234 | 228 |
| 8 | 218 | 227 | 228 | 229 | 230 | 224 |
| | 217 | 226 | 228 | 228 | 230 | 225 |
| | 219 | 227 | 229 | 230 | 231 | 226 |
| | 221 | 230 | 232 | 233 | 234 | 228 |
| | 224 | 233 | 235 | 236 | 237 | 232 |
| | 226 | 235 | 237 | 239 | 240 | 233 |
| | 226 | 236 | 238 | 239 | 240 | 232 |
| 6 | 225 | 235 | 238 | 239 | 240 | 233 |
| | 224 | 234 | 237 | 239 | 237 | 234 |
| | 224 | 234 | 237 | 238 | 238 | 231 |
| | 225 | 234 | 237 | 239 | 239 | 232 |
| | 225 | 235 | 237 | 239 | 240 | 234 |
| | 225 | 235 | 237 | 238 | 239 | 233 |
| 4 | 224 | 233 | 235 | 236 | 237 | 231 |
| | 221 | 230 | 232 | 233 | 233 | 229 |
| | 218 | 227 | 228 | 229 | 229 | 224 |

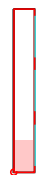
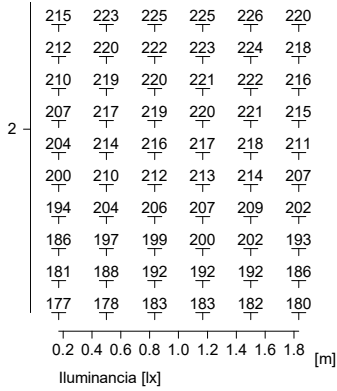


Parte1

| | | |
|--------------------------------|-----------|-------------------|
| Altura del nivel de referencia | : | 0.00 m |
| Iluminancia media | Em | : 223 lx |
| Iluminancia mínima | Emin | : 174 lx |
| Iluminancia máxima | Emax | : 245 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.28 (0.78) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.41 (0.71) |

2.3 Resultados del cálculo, Espacio 1

2.3.2 Tabla, Nivel útil 1.1 (E)



Parte2

2.3 Resultados del cálculo, Espacio 1

2.3.3 Tabla, Suelo (L)

| | | | | | | |
|----|------|------|------|---------------|------|---------------|
| | 50.7 | 51.6 | 52.8 | 53.2 | 52 | (42.2) |
| | 51.4 | 52.5 | 53.8 | 54.5 | 52.5 | 50.4 |
| | 53 | 54.1 | 55.5 | 55.6 | 54.4 | 53.5 |
| | 55.5 | 56.7 | 57.8 | 57.8 | 56.7 | 55.9 |
| | 57.7 | 58.9 | 60 | 60 | 59.1 | 58.2 |
| 14 | 59.5 | 60.7 | 61.8 | 61.8 | 60.9 | 60 |
| | 60.9 | 62 | 63 | 62.9 | 61.9 | 61.1 |
| | 61.9 | 63.1 | 64 | 63.9 | 62.9 | 62 |
| | 62.8 | 63.8 | 64.8 | 65.1 | 64.1 | 63.1 |
| | 63.5 | 64.6 | 65.9 | 66.2 | 65.1 | 64.2 |
| | 64.3 | 65.6 | 67 | 67.2 | 66.3 | 65.4 |
| | 65.2 | 66.6 | 68 | 68.3 | 67.6 | 66.5 |
| 12 | 66.1 | 67.5 | 68.7 | 69.3 | 68.4 | 67.6 |
| | 66.8 | 68.2 | 69.6 | 69.7 | 68.9 | 67.9 |
| | 67.3 | 68.6 | 70.1 | 70.2 | 69.1 | 68.1 |
| | 67.3 | 68.6 | 69.8 | 70 | 69.4 | 68.5 |
| | 67.4 | 68.4 | 69.6 | 70 | 69.4 | 69 |
| | 67.5 | 68.7 | 69.8 | 70.3 | 69.7 | 69.1 |
| 10 | 67.4 | 68.5 | 69.8 | [70.4] | 69.6 | 68.8 |
| | 67.1 | 68.2 | 69.8 | 70.3 | 69.6 | 68.9 |
| | 66.5 | 67.8 | 69.4 | 69.8 | 69.1 | 68.4 |
| | 65.7 | 67.4 | 68.5 | 68.7 | 68.1 | 67.3 |
| | 64.8 | 66.1 | 67.4 | 67.5 | 66.9 | 65.3 |
| | 64.1 | 65.5 | 67.1 | 67 | 65.7 | 64.1 |
| 8 | 64.1 | 65.3 | 66.7 | 66.5 | 65.4 | 63.7 |
| | 64.6 | 65.6 | 66.6 | 66.5 | 65.9 | 64.8 |
| | 65.3 | 66.3 | 67.3 | 67.5 | 66.7 | 66 |
| | 65.5 | 66.8 | 68.1 | 68.4 | 67.8 | 67.2 |
| | 65.7 | 67 | 68.9 | 68.8 | 68.1 | 67 |
| | 65.9 | 67.2 | 69.1 | 69.3 | 68.3 | 67.1 |
| 6 | 65.8 | 67.3 | 68.8 | 69.4 | 68.6 | 67.7 |
| | 65.9 | 67.5 | 68.7 | 69.4 | 68.8 | 67.7 |
| | 66 | 67.4 | 68.8 | 69.1 | 68.6 | 67.7 |
| | 66.1 | 67.4 | 69 | 69.5 | 68.7 | 67.6 |
| | 65.9 | 67.3 | 69.1 | 69.4 | 68.6 | 67.7 |
| | 65.6 | 67.1 | 69 | 69.2 | 68.2 | 67.6 |
| 4 | 65.2 | 66.5 | 68.5 | 68.7 | 67.6 | 67.1 |
| | 64.5 | 65.7 | 67.3 | 67.5 | 66.9 | 65.5 |



Parte1

| | | |
|-------------------|----|--------------------------|
| Luminancia media | Lm | : 64 cd/m ² |
| Luminancia mínima | Lm | : 42.2 cd/m ² |
| Luminancia máxima | Lm | : 70.4 cd/m ² |

2.3 Resultados del cálculo, Espacio 1

2.3.4 Tabla, Nivel útil 1.1 (Ec)

| | | | | | | |
|----|-------|-----|-----|--------------|--------------|-----|
| | (143) | 153 | 156 | 156 | 157 | 147 |
| | 156 | 169 | 171 | 173 | 172 | 164 |
| | 165 | 173 | 174 | 175 | 177 | 166 |
| | 169 | 177 | 178 | 179 | 180 | 173 |
| | 173 | 180 | 179 | 180 | 182 | 179 |
| 14 | 174 | 182 | 179 | 181 | 185 | 181 |
| | 178 | 185 | 186 | 187 | 189 | 187 |
| | 180 | 190 | 191 | 192 | 194 | 191 |
| | 184 | 194 | 194 | 196 | 199 | 190 |
| | 187 | 196 | 199 | 200 | 201 | 195 |
| | 189 | 198 | 200 | 199 | 203 | 202 |
| 12 | 191 | 200 | 200 | 201 | 205 | 199 |
| | 194 | 201 | 201 | 201 | 205 | 201 |
| | 194 | 204 | 204 | 205 | 208 | 201 |
| | 197 | 207 | 207 | 209 | 210 | 198 |
| | 199 | 208 | 208 | 209 | 211 | 201 |
| | 199 | 209 | 211 | [212] | [212] | 201 |
| 10 | 199 | 206 | 208 | 208 | 211 | 200 |
| | 197 | 206 | 207 | 209 | 211 | 203 |
| | 193 | 203 | 204 | 204 | 209 | 204 |
| | 194 | 201 | 200 | 204 | 207 | 202 |
| | 194 | 203 | 200 | 203 | 207 | 201 |
| | 193 | 202 | 204 | 204 | 207 | 196 |
| | 192 | 202 | 202 | 205 | 206 | 198 |
| 8 | 192 | 203 | 203 | 206 | 204 | 196 |
| | 191 | 201 | 204 | 204 | 206 | 194 |
| | 191 | 200 | 201 | 204 | 205 | 198 |
| | 192 | 201 | 198 | 202 | 204 | 195 |
| | 191 | 200 | 200 | 201 | 204 | 196 |
| 6 | 194 | 202 | 203 | 205 | 207 | 199 |
| | 195 | 204 | 205 | 207 | 205 | 199 |
| | 194 | 205 | 207 | 210 | 210 | 197 |
| | 195 | 204 | 208 | 210 | 211 | 199 |
| | 197 | 206 | 208 | 208 | 210 | 200 |
| | 196 | 205 | 204 | 207 | 208 | 197 |
| | 195 | 200 | 202 | 202 | 206 | 198 |
| 4 | 191 | 200 | 199 | 199 | 200 | 196 |
| | 190 | 198 | 198 | 198 | 201 | 191 |
| | 188 | 196 | 199 | 198 | 200 | 194 |



Parte1

Iluminancia cilíndrica

Altura del nivel de referencia

: 0.45 m

Iluminancia media

Em : 192 lx

Iluminancia mínima

Emin : 143 lx

Iluminancia máxima

Emax : 212 lx

Uniformidad Uo

Emin/Em : 1 : 1.35 (0.74)

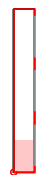
Uniformidad Ud

Emin/Emax : 1 : 1.49 (0.67)

2.3 Resultados del cálculo, Espacio 1

2.3.4 Tabla, Nivel útil 1.1 (Ec)

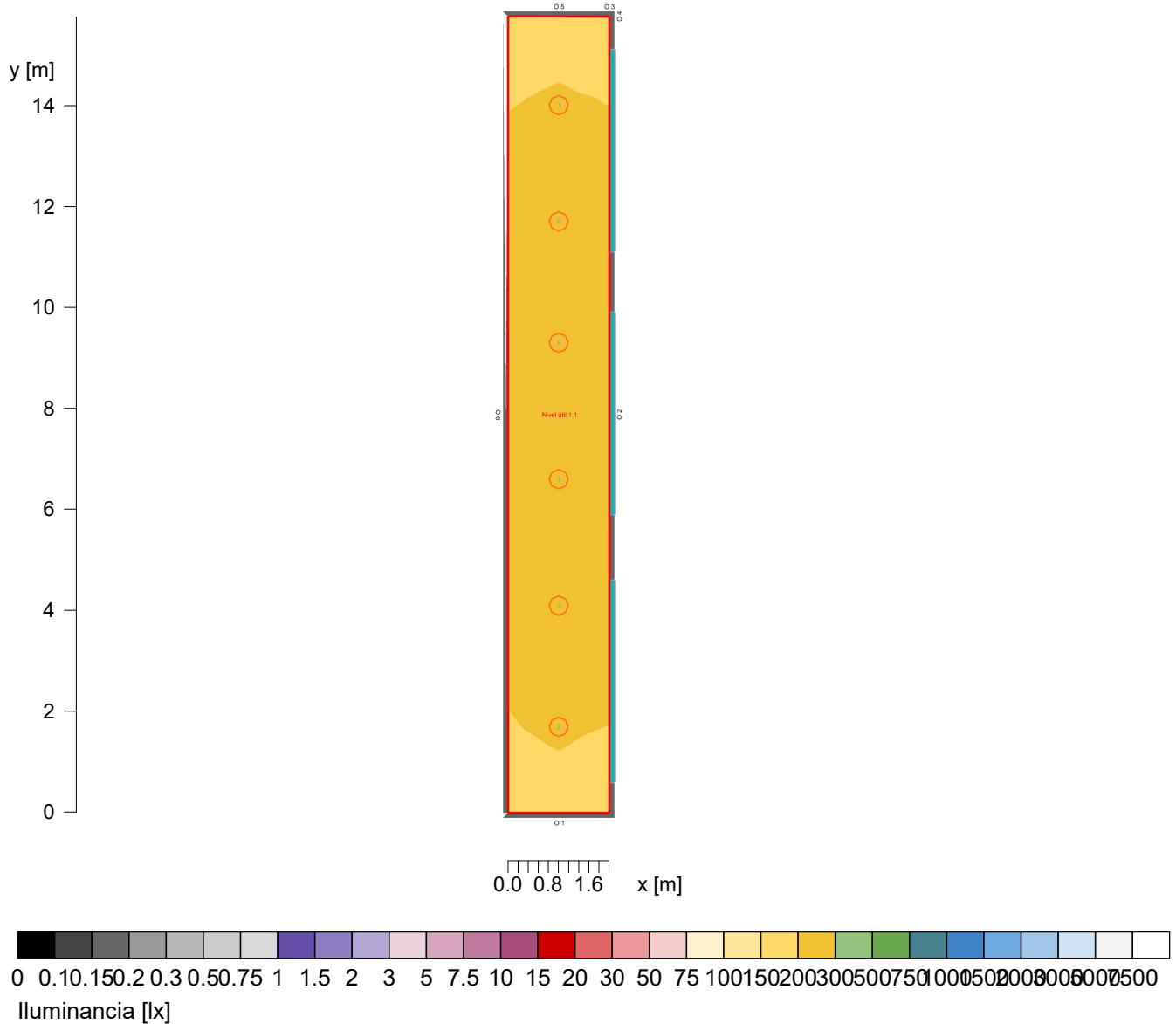
| | | | | | | | | | | |
|---|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2 | 184 | 195 | 196 | 198 | 199 | 194 | | | | |
| | 183 | 191 | 194 | 196 | 197 | 190 | | | | |
| | 183 | 190 | 189 | 191 | 194 | 189 | | | | |
| | 178 | 186 | 186 | 185 | 190 | 182 | | | | |
| | 175 | 183 | 180 | 181 | 186 | 178 | | | | |
| | 174 | 179 | 179 | 180 | 182 | 174 | | | | |
| | 171 | 179 | 178 | 179 | 181 | 175 | | | | |
| | 168 | 176 | 178 | 179 | 178 | 171 | | | | |
| | 161 | 172 | 175 | 175 | 172 | 165 | | | | |
| | (143) | 158 | 160 | 160 | 161 | 148 | | | | |
| | | 0.2 | 0.4 | 0.6 | 0.8 | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 |
| | | [m] | | | | | | | | |



Parte2

2.3 Resultados del cálculo, Espacio 1

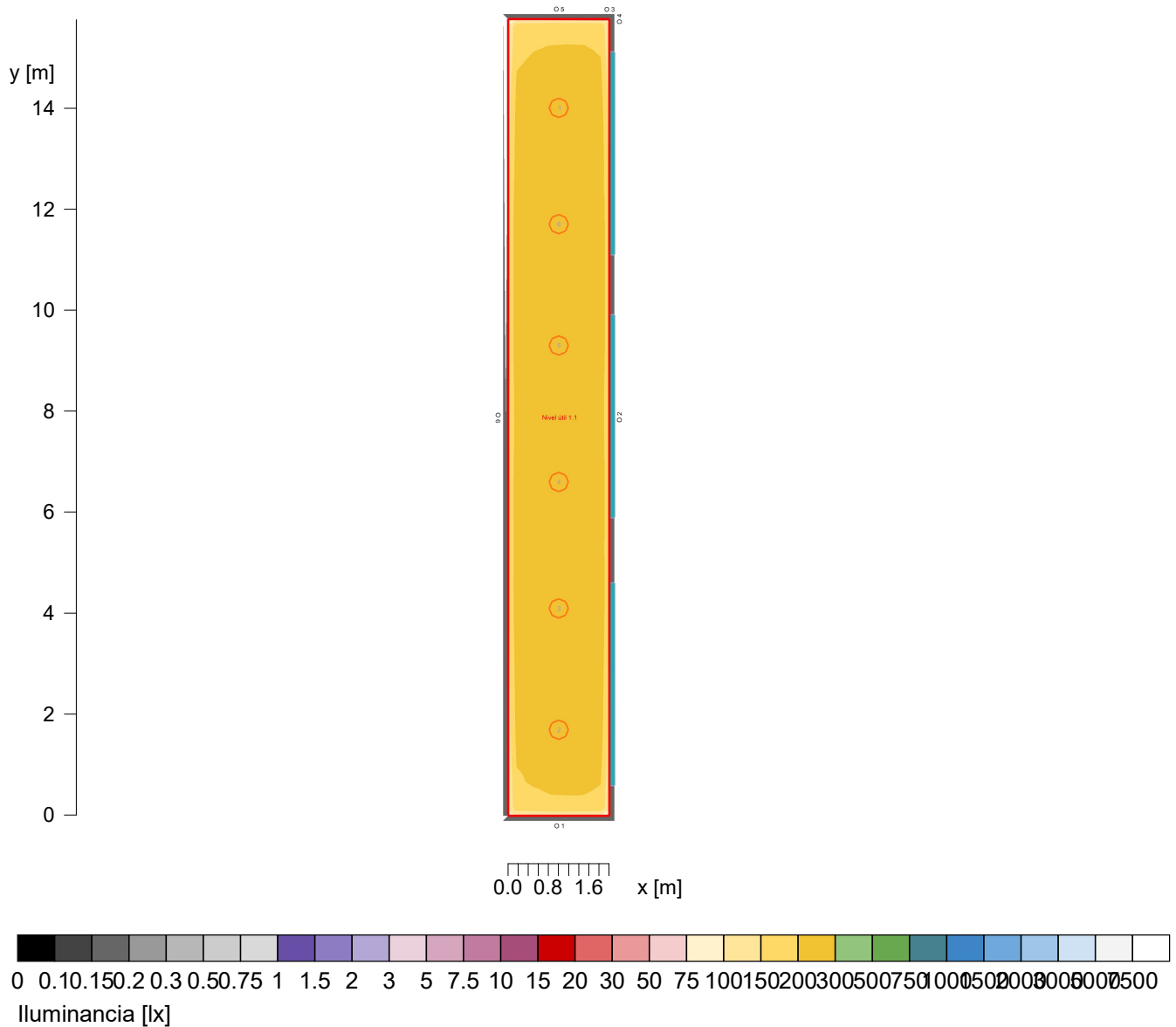
2.3.5 Colores falsos, Suelo (E)



| | | |
|--------------------|-----------|-------------------|
| Iluminancia media | Em | : 212 lx |
| Iluminancia mínima | Emin | : 140 lx |
| Iluminancia máxima | Emax | : 233 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.52 (0.66) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.67 (0.60) |

2.3 Resultados del cálculo, Espacio 1

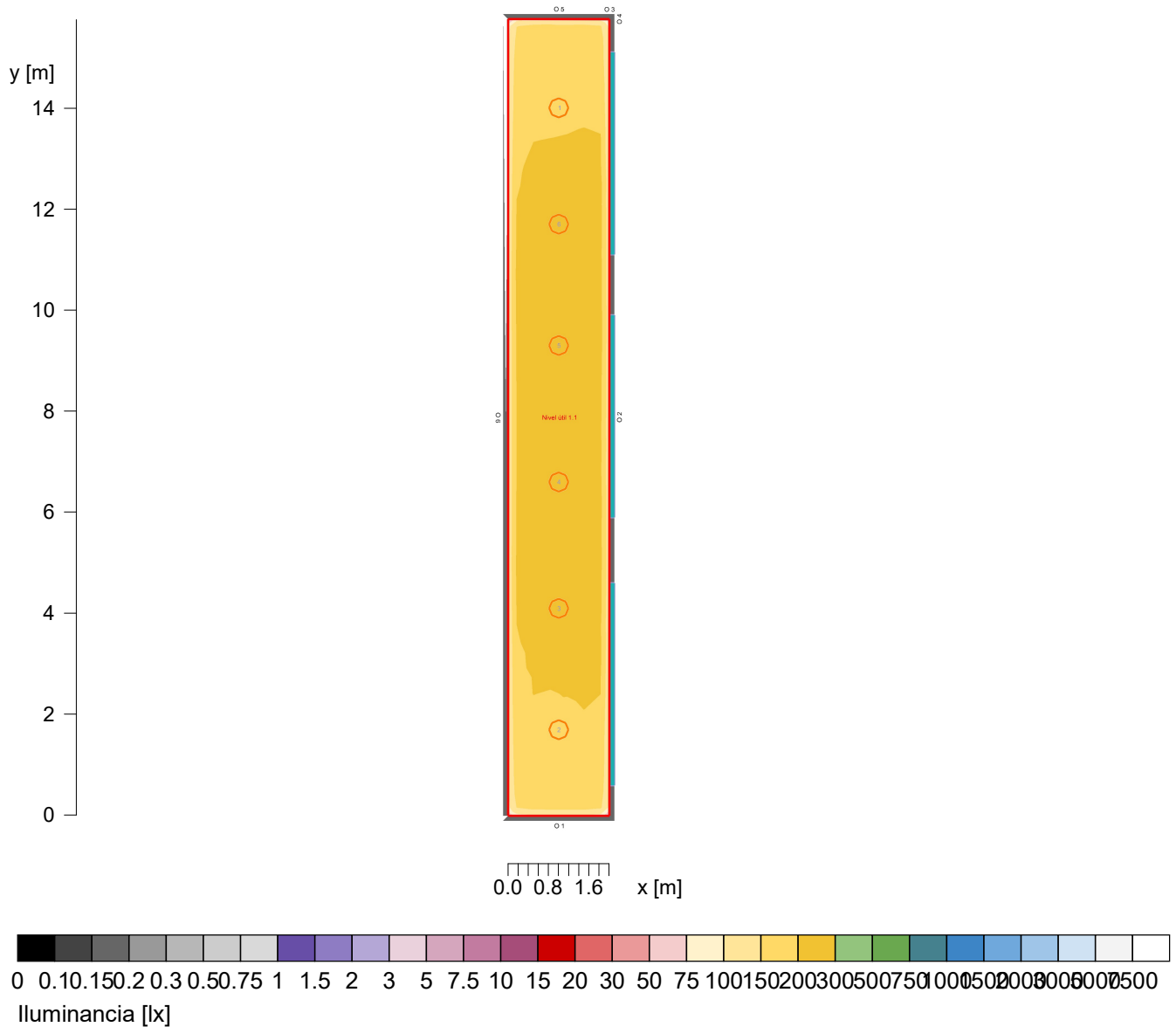
2.3.6 Colores falsos, Nivel útil 1.1 (E)



| | | |
|--------------------------------|-----------|-------------------|
| Altura del nivel de referencia | : | 0.00 m |
| Iluminancia media | Em | : 223 lx |
| Iluminancia mínima | Emin | : 174 lx |
| Iluminancia máxima | Emax | : 245 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.28 (0.78) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.41 (0.71) |

2.3 Resultados del cálculo, Espacio 1

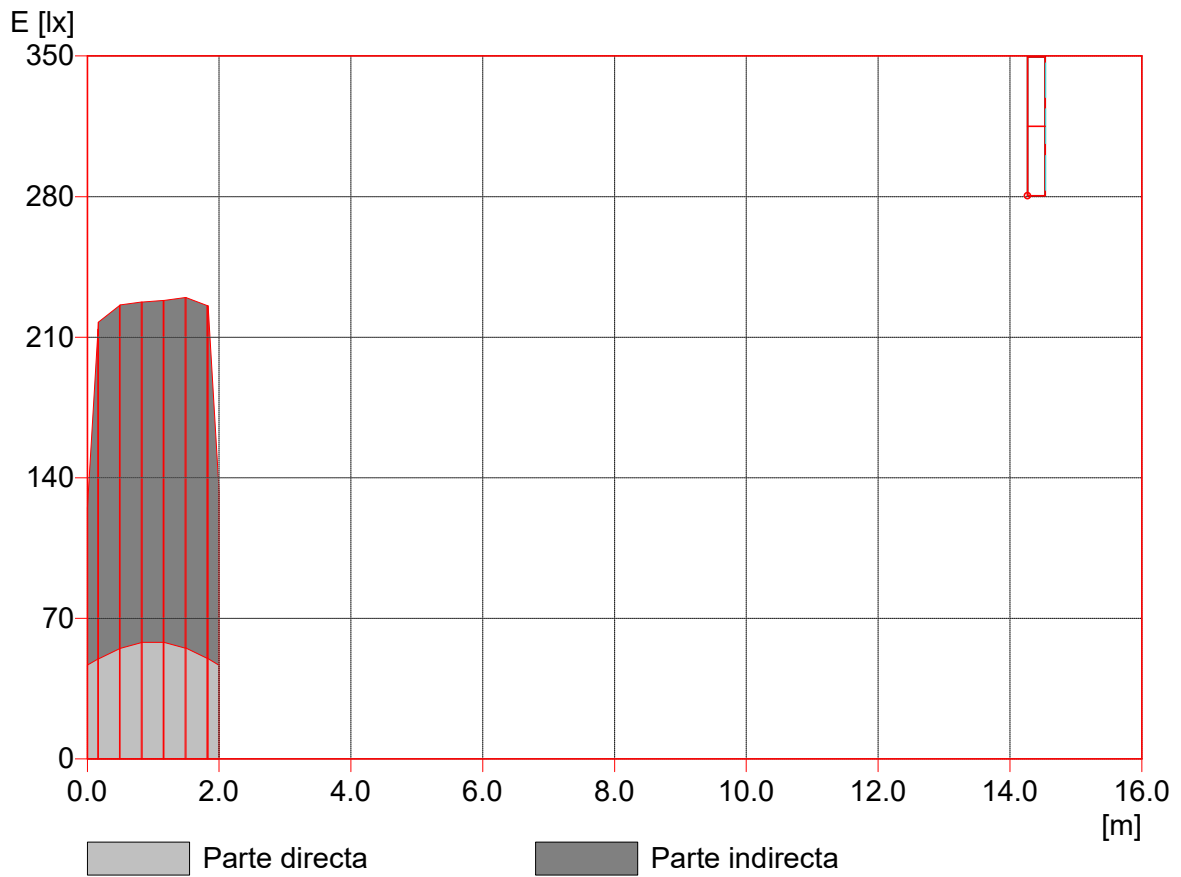
2.3.7 Colores falsos, Nivel útil 1.1 (Ec)



| | | |
|--------------------------------|-----------|-------------------|
| Iluminancia cilíndrica | | |
| Altura del nivel de referencia | | : 0.45 m |
| Iluminancia media | Em | : 192 lx |
| Iluminancia mínima | Emin | : 143 lx |
| Iluminancia máxima | Emax | : 212 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.35 (0.74) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.49 (0.67) |

2.3 Resultados del cálculo, Espacio 1

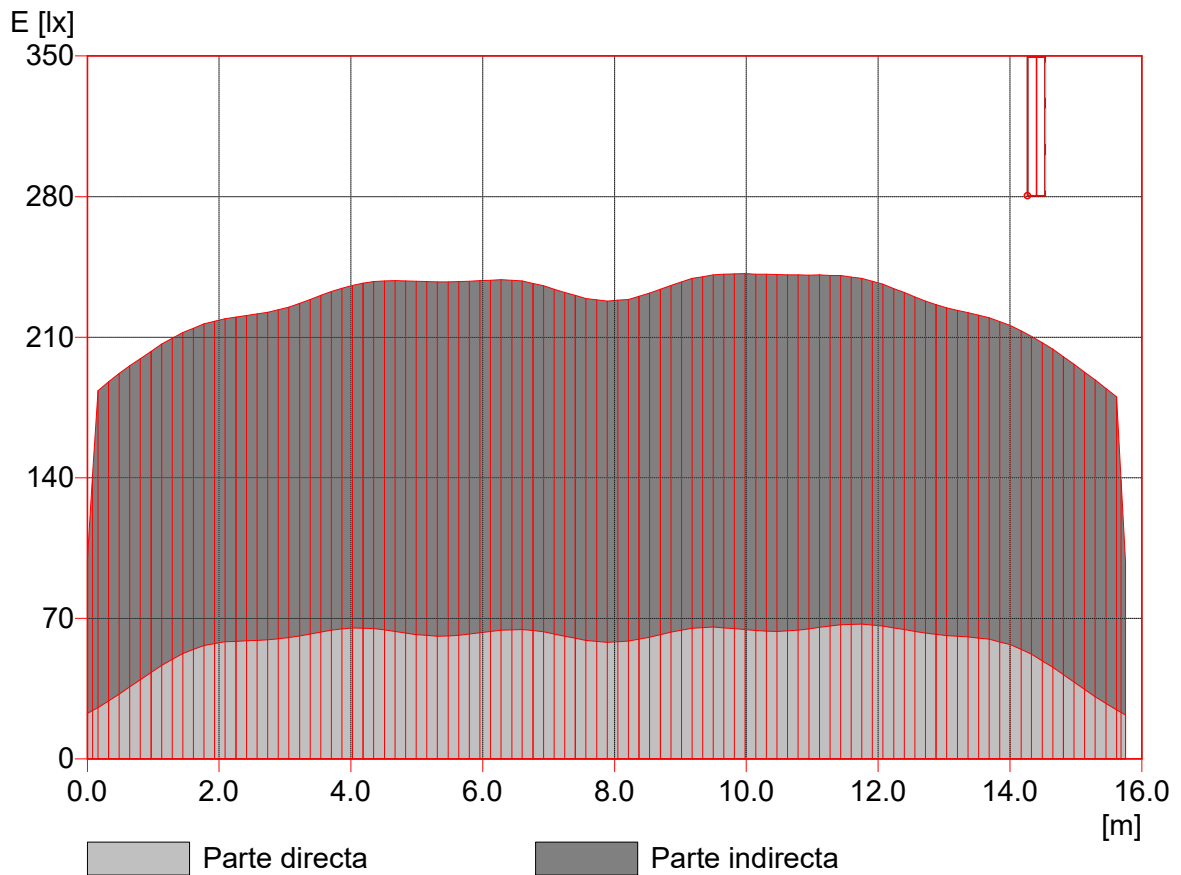
2.3.8 Sección longitudinal, Nivel útil 1.1 (E)



Sección longitudinal en y = 7.88 m

2.3 Resultados del cálculo, Espacio 1

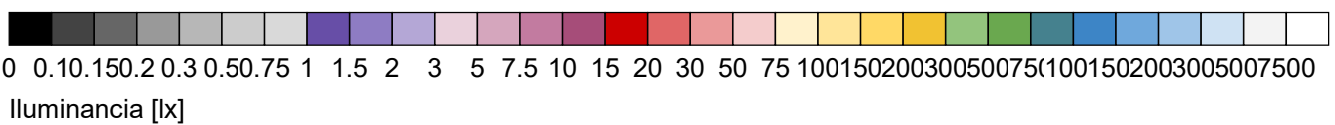
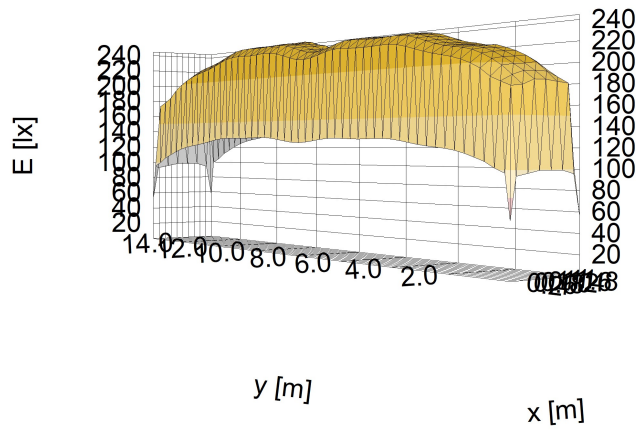
2.3.9 Sección transversal, Nivel útil 1.1 (E)



Sección transversal en $x = 1.00$ m

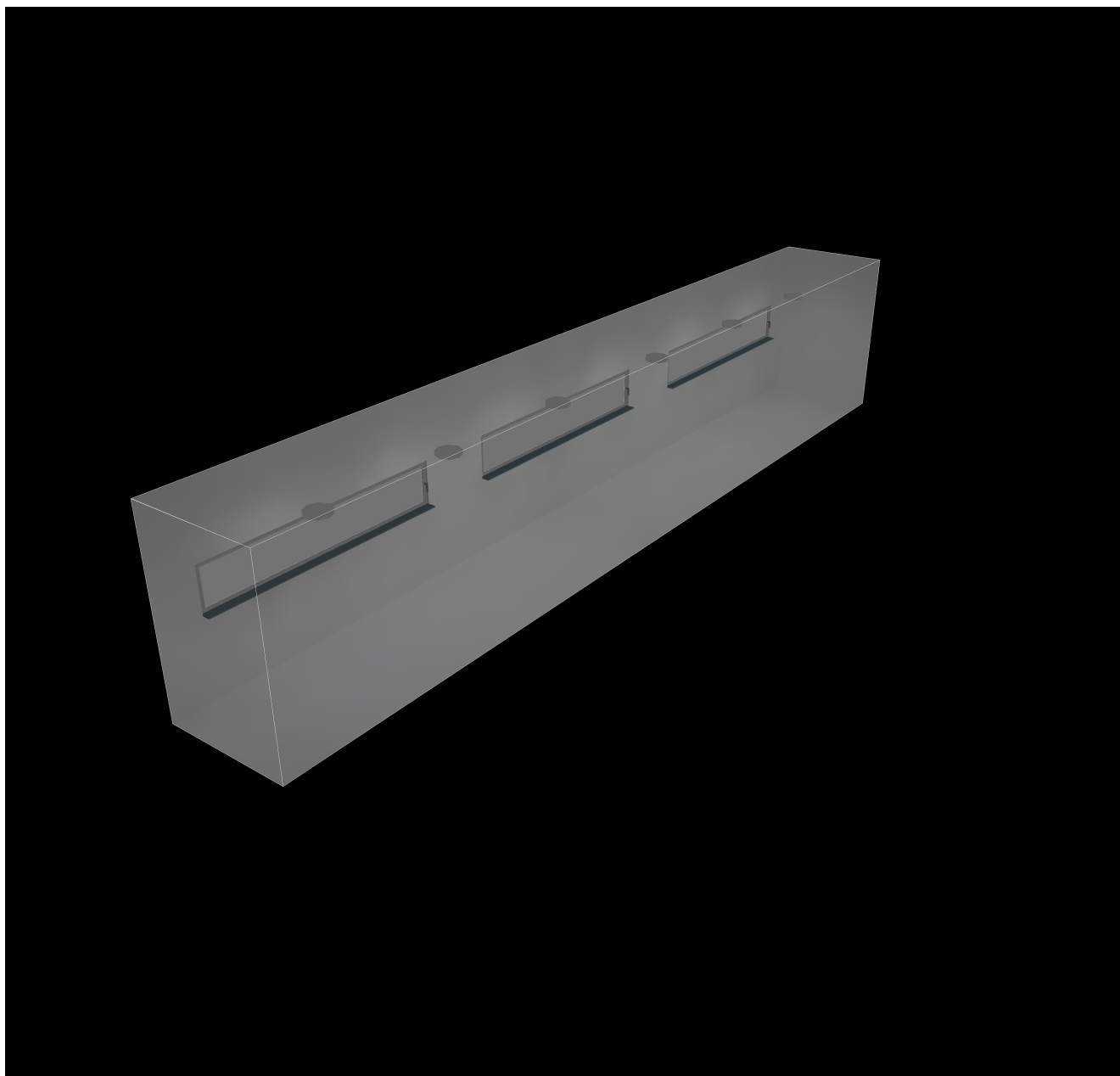
2.3 Resultados del cálculo, Espacio 1

2.3.10 Relieve 3D, Nivel útil 1.1 (E)



2.3 Resultados del cálculo, Espacio 1

2.3.11 Luminancia-3D, Vista 1



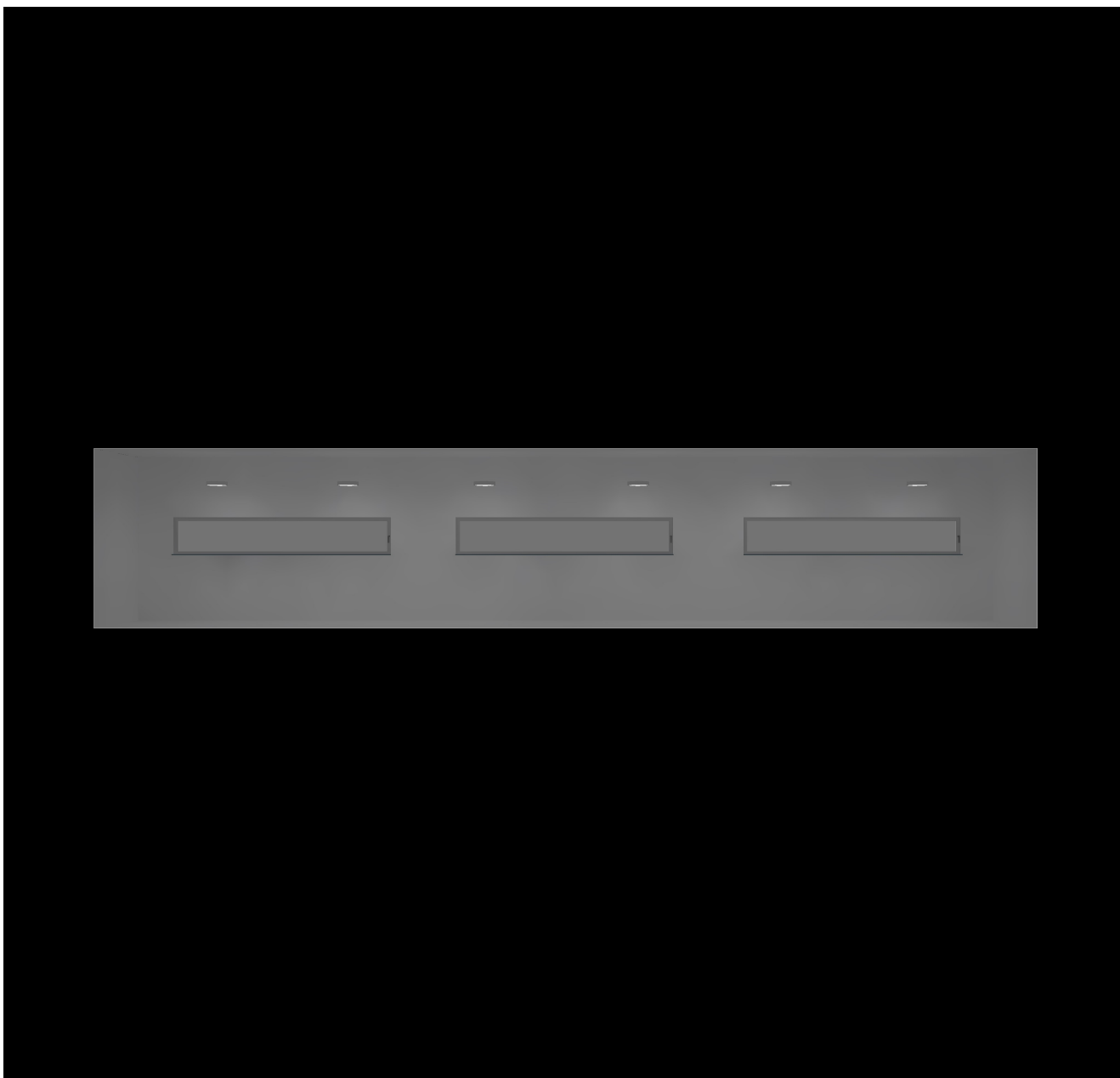
2.3 Resultados del cálculo, Espacio 1

2.3.12 Luminancia-3D, Vista desde delante



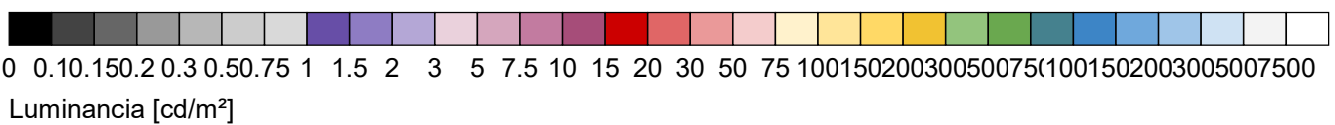
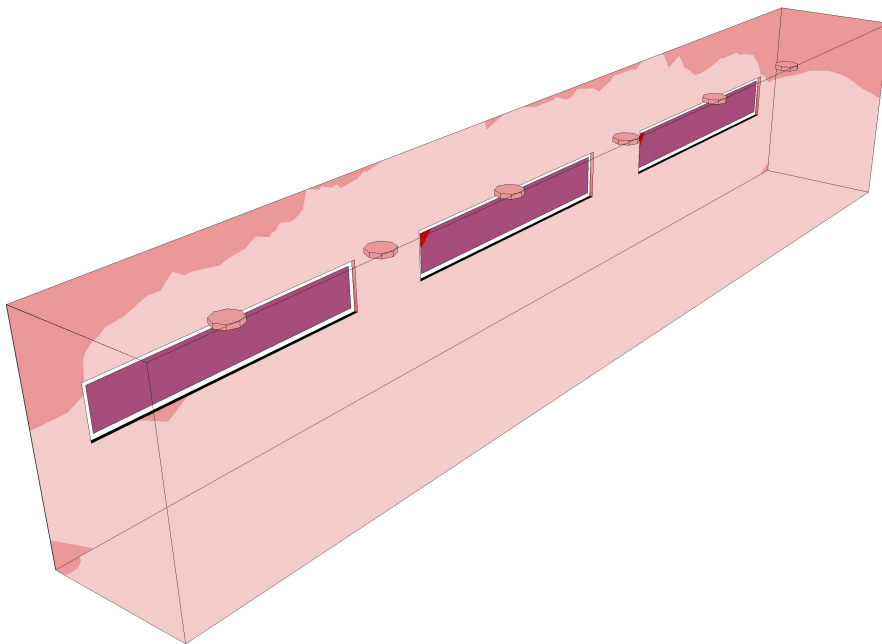
2.3 Resultados del cálculo, Espacio 1

2.3.13 Luminancia-3D, Vista desde la izquierda



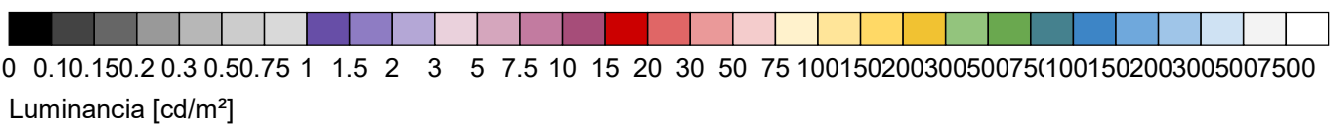
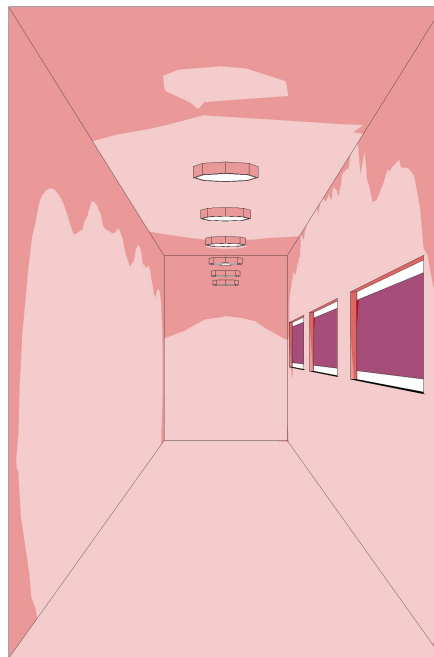
2.3 Resultados del cálculo, Espacio 1

2.3.14 Colores falsos-3D, Vista 1 (L)



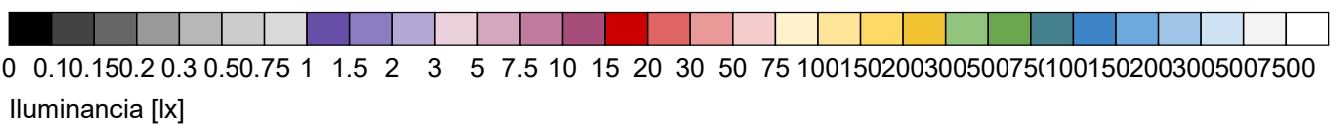
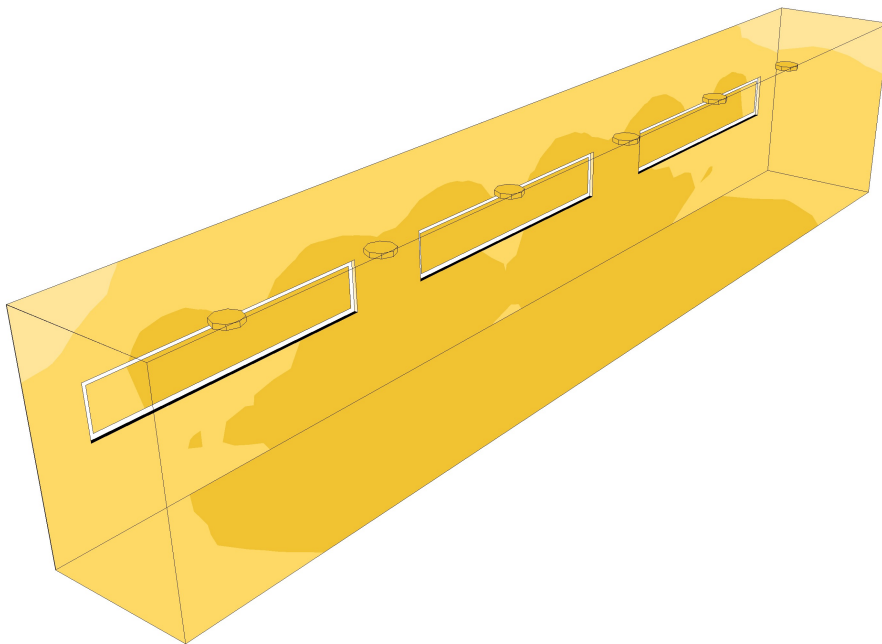
2.3 Resultados del cálculo, Espacio 1

2.3.15 Colores falsos-3D, Vista desde delante (L)



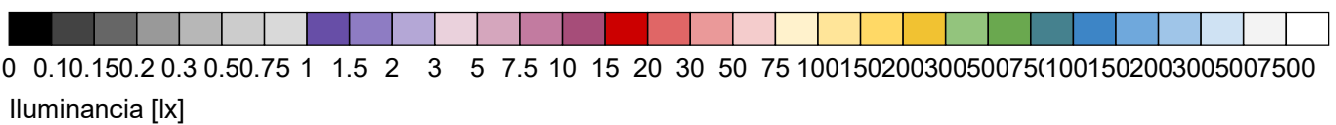
2.3 Resultados del cálculo, Espacio 1

2.3.16 Colores falsos-3D, Vista 1 (E)



2.3 Resultados del cálculo, Espacio 1

2.3.17 Colores falsos-3D, Vista desde delante (E)



Instalación :

Nº del proyecto : Ambiente A
Cliente : Leonardo Garcia
Responsable :
Fecha : 20.07.2022

Los siguientes valores se basan en los cálculos exactos en lámparas, luminarias calibradas y en su disposición nominal. En la práctica pueden producirse variaciones graduales. Quedan excluidos los derechos de garantía para los datos de luminarias. El fabricante no se responsabiliza de los daños subsiguientes o daños originados al usuario o a terceros.

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022

RELUX®

1 Datos de luminarias

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.1 Hoja de datos

Fabricante: Relux Demo

RELUX®

!0MJ2712L18830 Wall and ceiling luminaire-ceiling mounted Access Ceiling Mounted Luminaire

POSIVO® LED flat, wall and ceiling luminaire

primary optical cover: enclosure, of PMMA

light emission: direct distribution

installation type: surface-mounted

LED, luminous flux: 1.600 lm

luminous efficacy: 76lm/W

light colour: 830

colour temperature: 3000K

control gear: ECG, with terminal, 3-pole

mains connection: 220..240V

connected load: 21W, housing, round, of sheet steel, white

diameter: 380 mm

height: 65mm

ring, of aluminium, silver

protection rating (complete): IP40

insulation class (complete): insulation class I (protective earthing)

certification: CE

impact resistance: IK03

Datos de luminarias

Fotometría absoluta

Eficacia de luminaria : 55.56 lm/W

Clasificación : A42 ↓96.1% ↑3.9%

CIE Flux Codes : 46 77 94 96 100

UGR 4H 8H : 17.6 / 17.6

Potencia : 9 W

Flujo luminoso : 500 lm

Equipamiento con

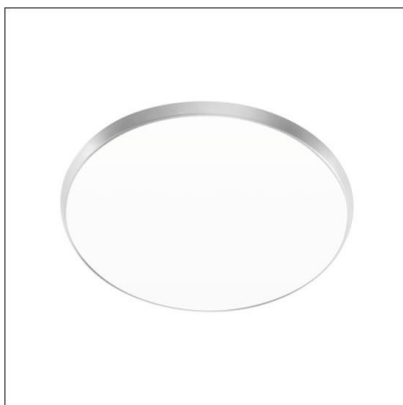
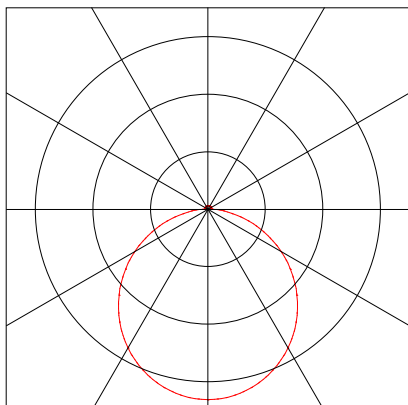
Cantidad : 1

Designación : LED 3000K /
CRI >= 80

Color : 3000K

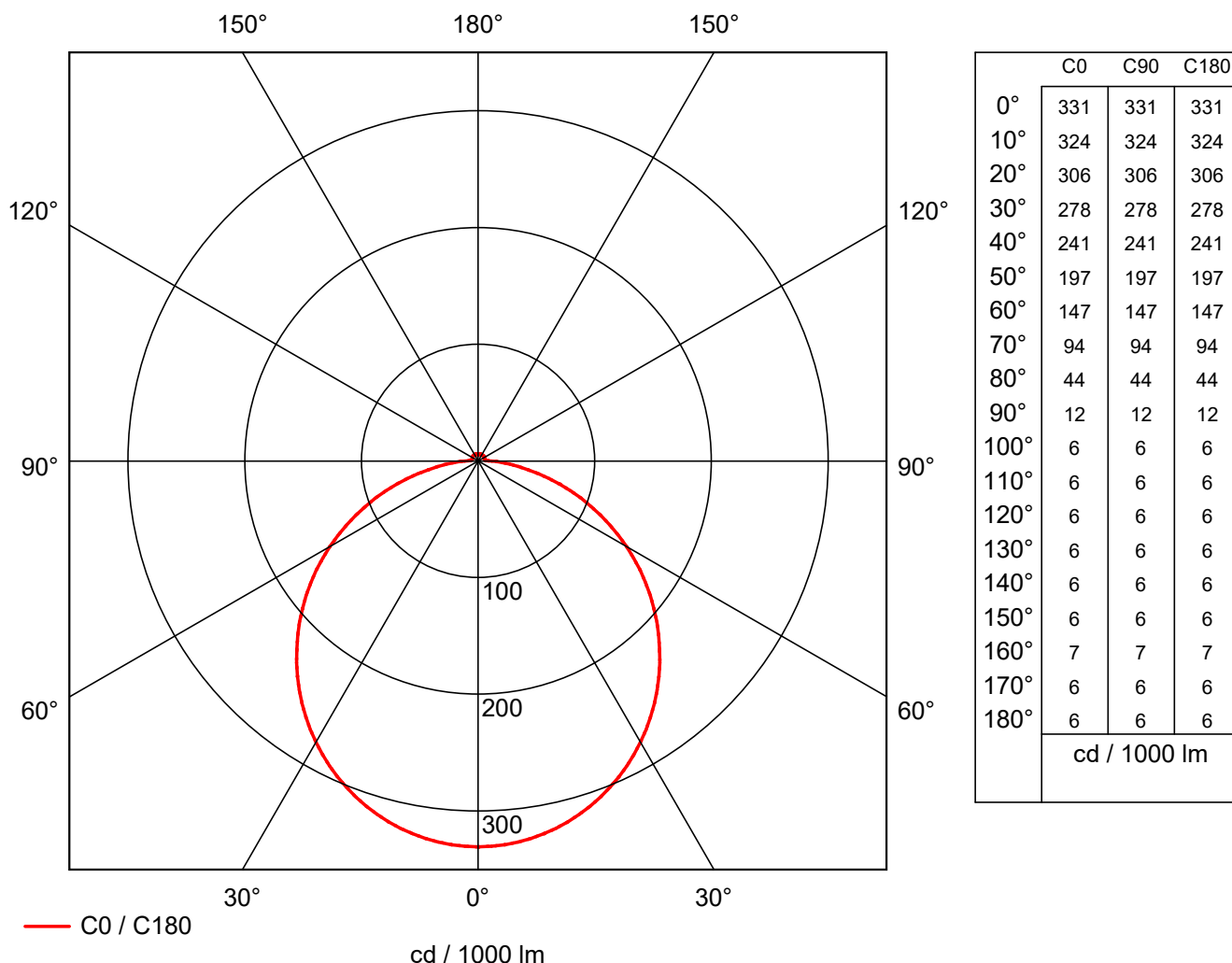
Reproducción cromática 80

Dimensiones : Ø380 mm x 65 mm



1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.2 CDL



Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 500
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx1813382265.ldt

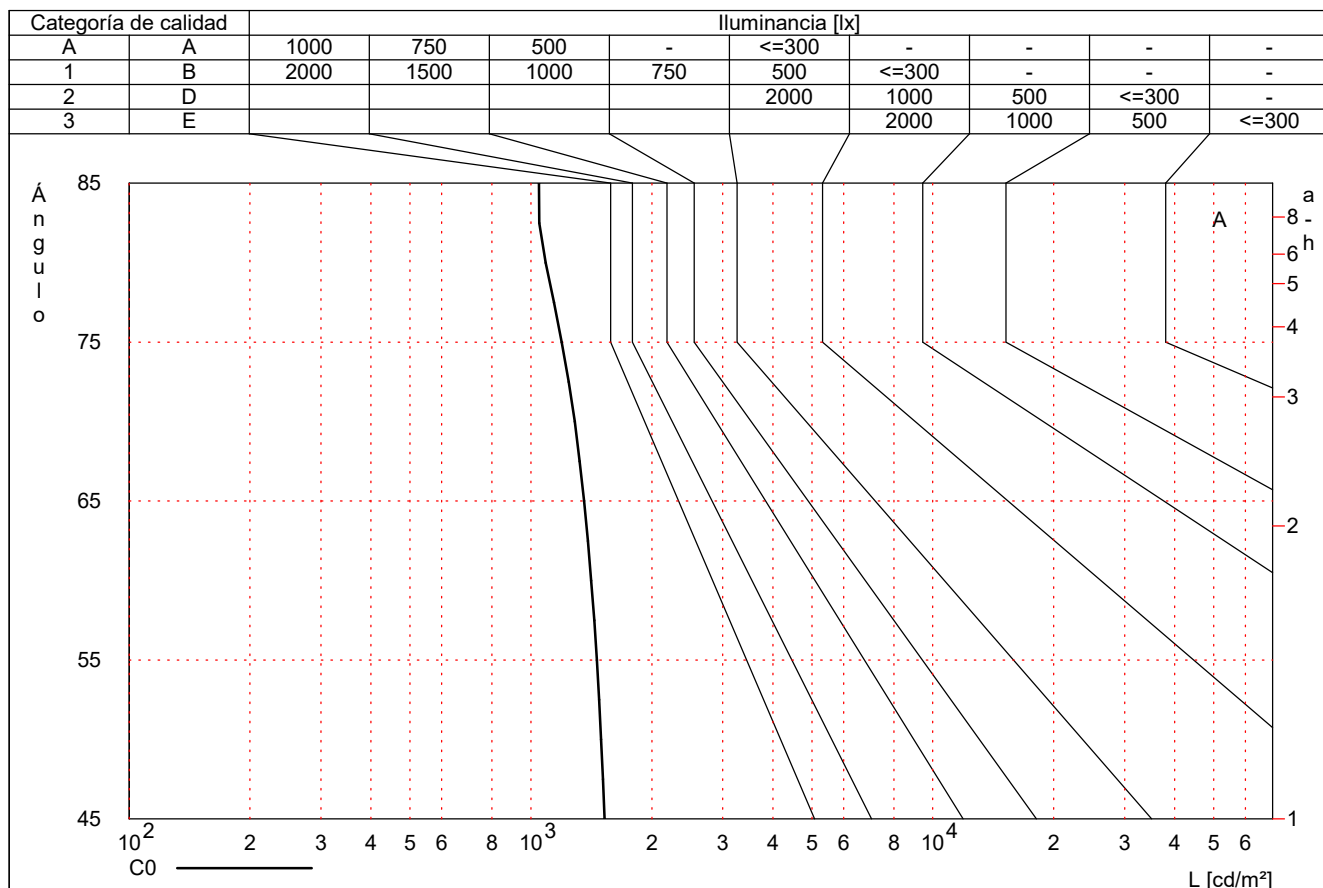
Eficacia de luminaria : 55.56 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

Objeto :
 Instalación :
 N° del proyecto : Ambiente A
 Fecha : 20.07.2022



1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.3 Diagrama Söllner



Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 500
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx1813382265.ldt

Eficacia de luminaria : 55.56 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.4 Tabla de luminancia

| | C0 | C15 | C30 | C45 | C60 | C75 | C90 | C105 | C120 | C135 | C150 | C165 |
|-----|------|------|------|------|--------|--------|------|------|------|------|--------|--------|
| 65° | 1356 | 1356 | 1356 | 1356 | [1356] | [1356] | 1356 | 1356 | 1356 | 1356 | [1356] | [1356] |
| 70° | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 |
| 75° | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 |
| 80° | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 |
| 85° | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 |

| | C180 | C195 | C210 | C225 | C240 | C255 | C270 | C285 | C300 | C315 | C330 | C345 |
|-----|------|------|------|------|--------|--------|------|------|------|------|--------|--------|
| 65° | 1356 | 1356 | 1356 | 1356 | [1356] | [1356] | 1356 | 1356 | 1356 | 1356 | [1356] | [1356] |
| 70° | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 | 1285 |
| 75° | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 | 1193 |
| 80° | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 | 1089 |
| 85° | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 | 1047 |

Luminancia [cd/m²]

Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 500
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx1813382265.lid

Eficacia de luminaria : 55.56 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.5 Valoración del deslumbramiento según UGR

Grados de reflexión

| | | | | | | | | | | |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Techo | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Paredes | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Suelo | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

Dimensiones del espacio x y

Vista en dirección C0

Vista en dirección C90

| | | Vista en dirección C0 | | | | | Vista en dirección C90 | | | | |
|-----|-----|-----------------------|------|------|------|------|------------------------|------|------|------|------|
| 2H | 2H | 13.4 | 15.0 | 13.8 | 15.4 | 15.8 | 13.4 | 15.0 | 13.8 | 15.4 | 15.8 |
| | 3H | 15.0 | 16.5 | 15.5 | 16.9 | 17.3 | 15.0 | 16.5 | 15.5 | 16.9 | 17.3 |
| | 4H | 15.7 | 17.1 | 16.2 | 17.5 | 17.9 | 15.7 | 17.1 | 16.2 | 17.5 | 17.9 |
| | 6H | 16.3 | 17.5 | 16.7 | 17.9 | 18.4 | 16.3 | 17.5 | 16.7 | 17.9 | 18.4 |
| | 8H | 16.4 | 17.6 | 16.9 | 18.1 | 18.6 | 16.4 | 17.6 | 16.9 | 18.1 | 18.6 |
| | 12H | 16.5 | 17.7 | 17.0 | 18.2 | 18.7 | 16.5 | 17.7 | 17.0 | 18.2 | 18.7 |
| 4H | 2H | 14.2 | 15.5 | 14.6 | 15.9 | 16.4 | 14.2 | 15.5 | 14.6 | 15.9 | 16.4 |
| | 3H | 15.9 | 17.1 | 16.4 | 17.6 | 18.1 | 15.9 | 17.1 | 16.4 | 17.6 | 18.1 |
| | 4H | 16.8 | 17.8 | 17.3 | 18.3 | 18.8 | 16.8 | 17.8 | 17.3 | 18.3 | 18.8 |
| | 6H | 17.4 | 18.3 | 17.9 | 18.8 | 19.4 | 17.4 | 18.3 | 17.9 | 18.8 | 19.4 |
| | 8H | 17.6 | 18.5 | 18.2 | 19.0 | 19.6 | 17.6 | 18.5 | 18.2 | 19.0 | 19.6 |
| | 12H | 17.9 | 18.7 | 18.4 | 19.2 | 19.7 | 17.9 | 18.7 | 18.4 | 19.2 | 19.7 |
| 8H | 4H | 17.1 | 17.9 | 17.6 | 18.5 | 19.0 | 17.1 | 17.9 | 17.6 | 18.5 | 19.0 |
| | 6H | 17.8 | 18.6 | 18.4 | 19.1 | 19.7 | 17.8 | 18.6 | 18.4 | 19.1 | 19.7 |
| | 8H | 18.2 | 18.9 | 18.8 | 19.4 | 20.0 | 18.2 | 18.9 | 18.8 | 19.4 | 20.0 |
| | 12H | 18.5 | 19.1 | 19.1 | 19.6 | 20.2 | 18.5 | 19.1 | 19.1 | 19.6 | 20.2 |
| 12H | 4H | 17.1 | 17.9 | 17.7 | 18.4 | 19.0 | 17.1 | 17.9 | 17.7 | 18.4 | 19.0 |
| | 6H | 18.0 | 18.6 | 18.5 | 19.2 | 19.7 | 18.0 | 18.6 | 18.5 | 19.2 | 19.7 |
| | 8H | 18.4 | 18.9 | 18.9 | 19.5 | 20.1 | 18.4 | 18.9 | 18.9 | 19.5 | 20.1 |

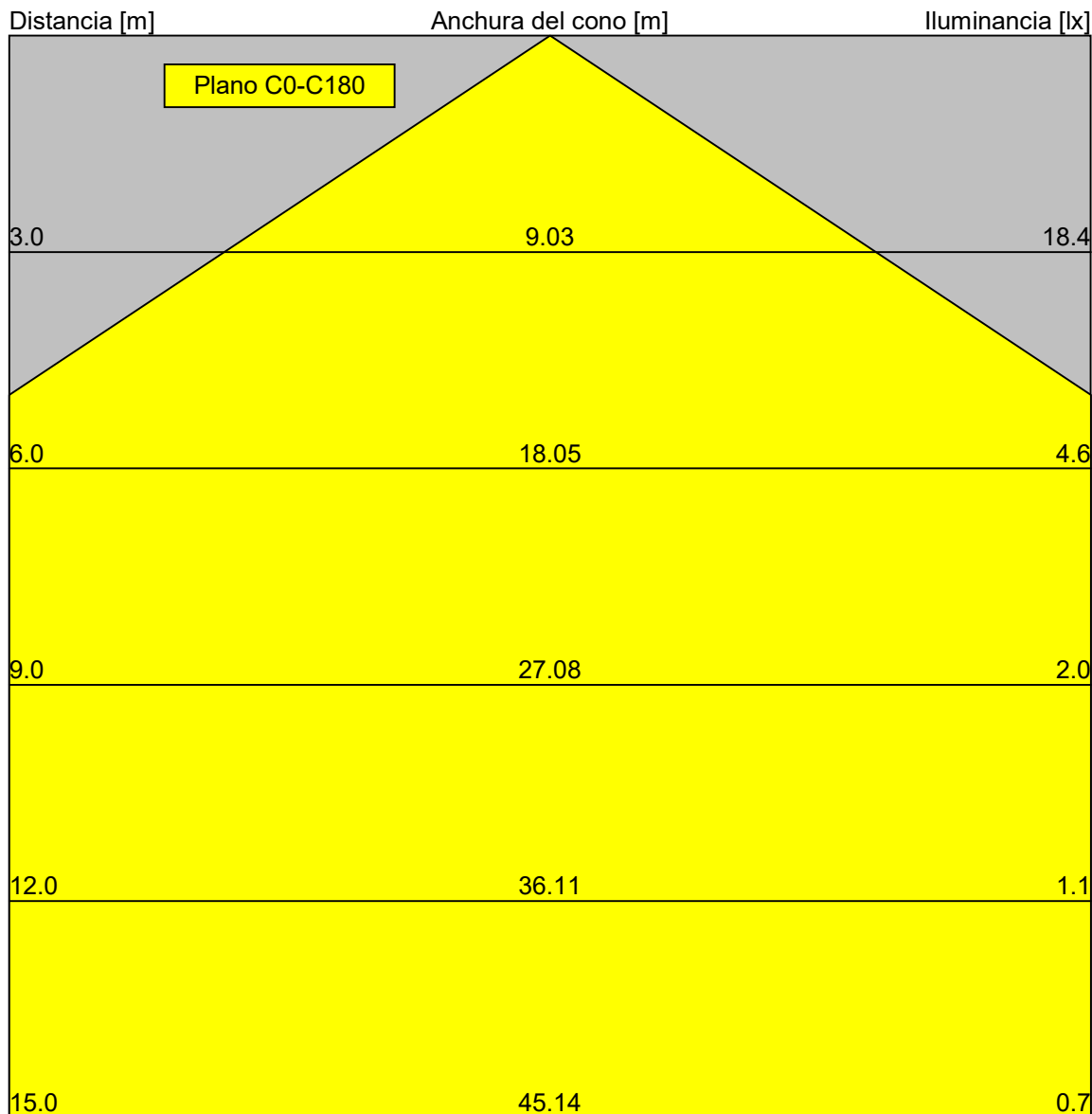
Distancia entre las luminarias: 0.25

Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 500
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rx1813382265.ltd

Eficacia de luminaria : 55.56 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.6 Diagrama cónico



Nota: La iluminancia se calcula con $I(\gamma=0)$.

Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 500
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rx1813382265.lid

Eficacia de luminaria : 55.56 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022




2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

Datos de productos:

Tipo Cant. Producto

| | | | |
|---|----|---|---|
| 3 | 10 |  | Relux Demo Nº de artículo : !0MJ2712L18830 Nombre de la lum. : Access Ceiling Mounted Luminaire Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 500 lm |
|---|----|---|---|

2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

Piso con luminaria y posiciones del sensor:



| N° | Centro | | Z [m] | Ángulo de rotación alrededor de | | | Coordenadas del objetivo | | |
|---|--------|-------|-------|---------------------------------|--------|---------|--------------------------|--------|--------|
| | X [m] | Y [m] | | Z [°] | C0 [°] | C90 [°] | Xa [m] | Ya [m] | Za [m] |
| Relux Demo Access Ceiling Mounted Luminaire !0MJ2712L18830 | | | | | | | | | |
| 13 | 1.40 | 11.50 | 3.00 | 0.00 | 0.00 | 0.00 | 1.40 | 11.50 | 0.00 |
| 14 | 3.85 | 11.50 | 3.00 | 0.00 | 0.00 | 0.00 | 3.85 | 11.50 | 0.00 |
| 15 | 1.45 | 8.95 | 3.00 | 0.00 | 0.00 | 0.00 | 1.45 | 8.95 | 0.00 |
| 16 | 3.90 | 8.95 | 3.00 | 0.00 | 0.00 | 0.00 | 3.90 | 8.95 | 0.00 |
| 17 | 1.45 | 6.50 | 3.00 | 0.00 | 0.00 | 0.00 | 1.45 | 6.50 | 0.00 |
| 18 | 3.90 | 6.50 | 3.00 | 0.00 | 0.00 | 0.00 | 3.90 | 6.50 | 0.00 |
| 19 | 1.40 | 4.00 | 3.00 | 0.00 | 0.00 | 0.00 | 1.40 | 4.00 | 0.00 |
| 20 | 3.85 | 4.00 | 3.00 | 0.00 | 0.00 | 0.00 | 3.85 | 4.00 | 0.00 |
| 21 | 1.40 | 1.60 | 3.00 | 0.00 | 0.00 | 0.00 | 1.40 | 1.60 | 0.00 |
| 22 | 3.85 | 1.60 | 3.00 | 0.00 | 0.00 | 0.00 | 3.85 | 1.60 | 0.00 |

Elementos de diseño

Superficie de medición

| N° | xm[m] | ym[m] | zm[m] | Longitud | Anchura | Ángulo de rotación | | |
|---------------|-------|-------|-------|----------|---------|--------------------|-------|---------|
| | | | | | | Eje-z | Eje-L | Eje-Q |
| Niv. útil 1.1 | | | | | | | | |
| | 0.00 | 0.00 | 0.00 | 5.15 | 13.00 | 0.00 | 0.00 | 0.00 |
| M 1.1 (O) | 5.15 | 0.00 | 0.00 | 5.15 | 0.00 | 0.00 | 90.00 | -180.00 |
| M 1.2 (O) | 5.15 | 12.90 | 0.00 | 0.00 | 12.90 | 0.00 | 90.00 | -90.00 |

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022



2 Espacio 1

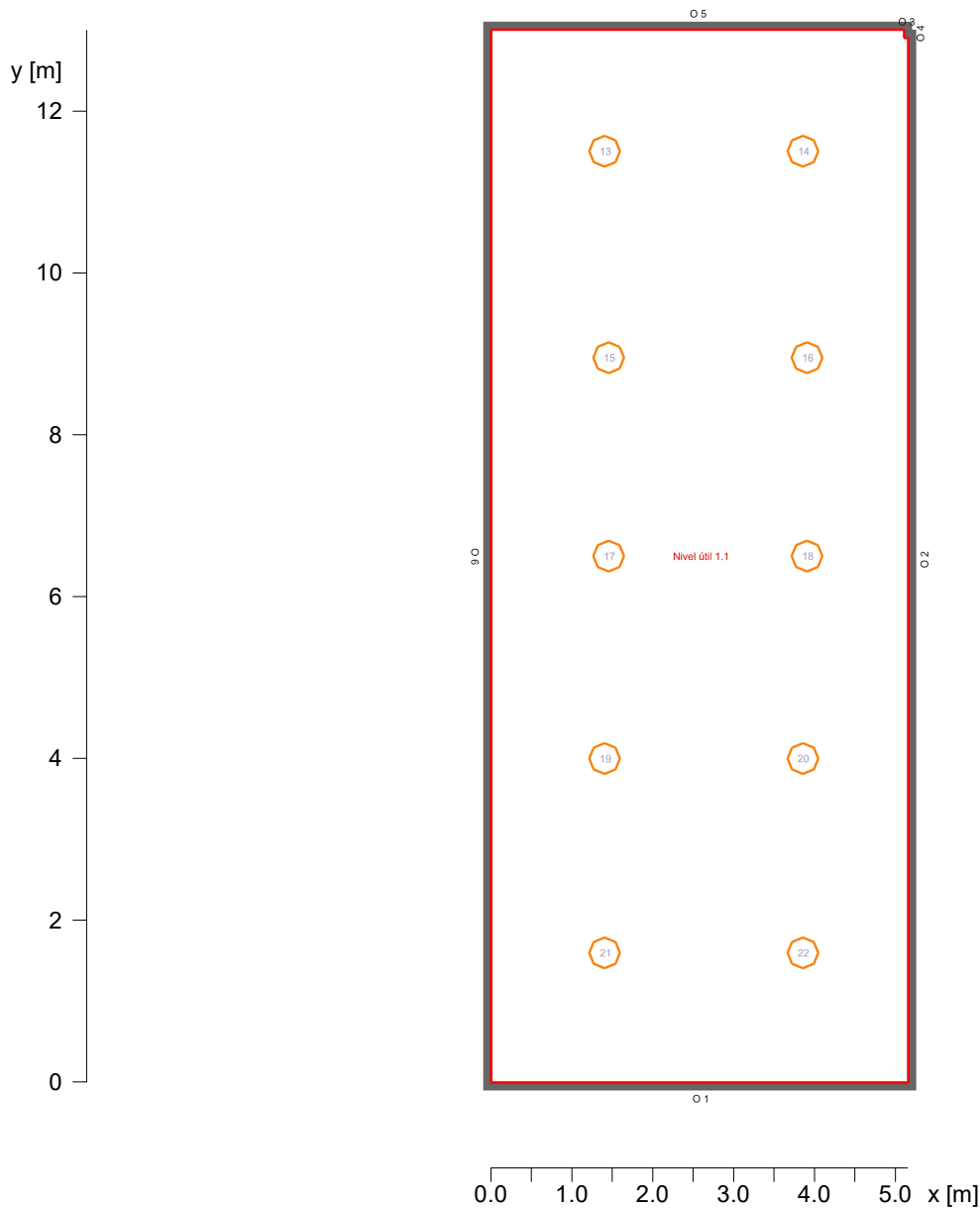
2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

| | | | | | | | | |
|----------|------|-------|------|------|-------|--------|-------|--------|
| M 1.3 (O | 5.10 | 12.90 | 0.00 | 0.05 | 0.00 | 0.00 | 90.00 | -0.00 |
| M 1.4 (O | 5.10 | 13.00 | 0.00 | 0.00 | 0.10 | 0.00 | 90.00 | -90.00 |
| M 1.5 (O | 0.00 | 13.00 | 0.00 | 5.10 | 0.00 | 0.00 | 90.00 | -0.00 |
| M 1.6 (O | 0.00 | 0.00 | 0.00 | 0.00 | 13.00 | 0.00 | 90.00 | 90.00 |
| M 1.7 (D | 0.00 | 13.00 | 3.00 | 5.15 | 13.00 | 180.00 | 0.00 | 180.00 |

2.1 Descripción Espacio 1

2.1.2 Planta horizontal



Datos del espacio:

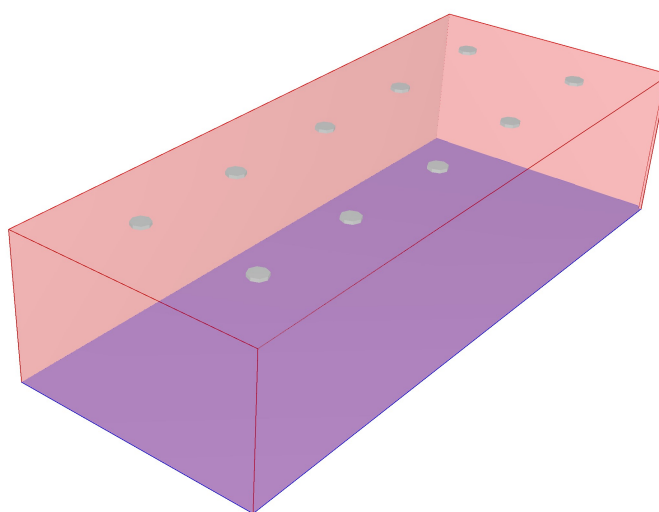
| | | |
|-------------------------------------|-------|---------|
| W1 : | 5.15 | 100.0 % |
| W2 : | 12.90 | 100.0 % |
| W3 : | 0.05 | 100.0 % |
| W4 : | 0.10 | 100.0 % |
| W5 : | 5.10 | 100.0 % |
| W6 : | 13.00 | 100.0 % |
| Suelo: | ----- | 100.0 % |
| Techo: | ----- | 100.0 % |
| Altura del espacio [m]: | | 3.00 |
| Altura del nivel útil [m]: | | 0.00 |
| Altura del nivel de luminarias [m]: | | 3.00 |

Grados de reflexión:

| |
|---------|
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |

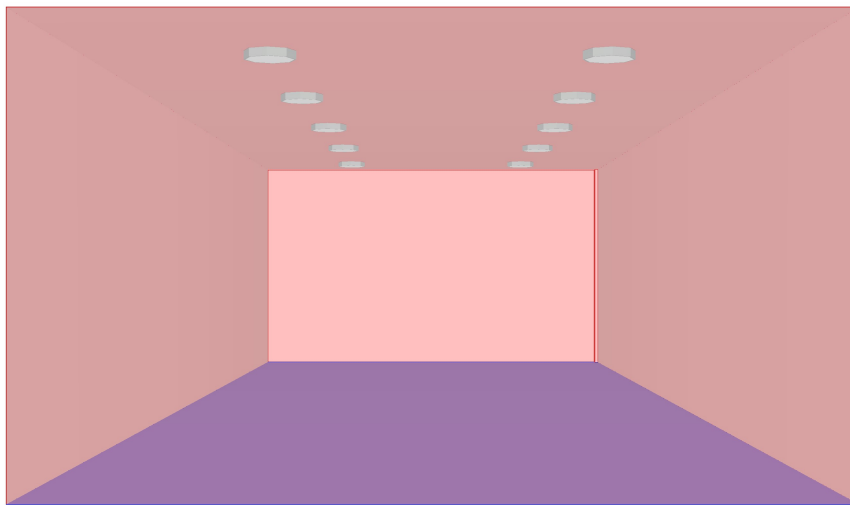
2.1 Descripción Espacio 1

2.1.3 Representación-3D, Vista 1



2.1 Descripción Espacio 1

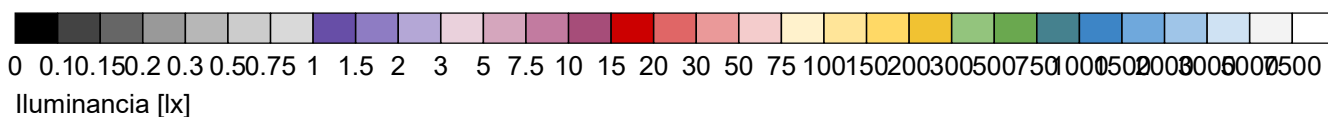
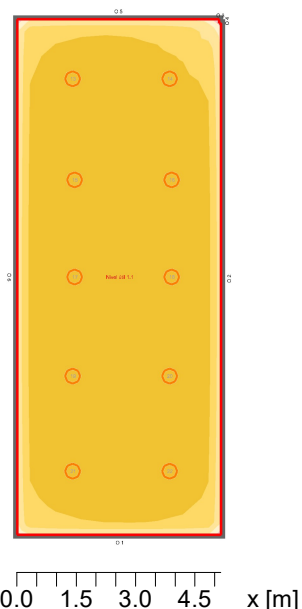
2.1.4 Representación-3D, Vista desde delante



2 Espacio 1

2.2 Resumen, Espacio 1

2.2.1 Resumen de los resultados, Superficie de evaluación 1



General

| | |
|---|--|
| Algoritmo de cálculo utilizada | Parte indirecta media |
| Altura del nivel de luminarias | 3.00 m |
| Factor de mant. | 0.80 |
| Flujo luminoso total de lámparas | 5000.00 lm |
| Potencia total | 90.0 W |
| Potencia total por superficie (66.95 m ²) | 1.34 W/m ² (0.66 W/m ² /100lx) |

Superficie de evaluación 1 Nivel útil 1.1

Perfil de usuario: Oficinas: Escritura, escritura a máquina, lectura, tratamiento de datos (Ra >80.00)

| | horizontal | | cilíndrico | |
|-----------------|------------|-------------|------------|------------|
| Em | 204 lx | (>= 200 lx) | 179 lx | (>= 50 lx) |
| Emin | 125 lx | | 126 lx | |
| Emin/Em (Uo) | 0.61 | (>= 0.60) | 0.70 | (>= 0.10) |
| Emin/Emax (Ud) | 0.58 | | | |
| UGR (2.9H 7.4H) | <=17.0 | (< 19.00) | | |
| Posición | 0.00 m | | 0.45 m | |

Superficies principales

| | Em | | Uo | |
|---------------|--------|------------|------|-----------|
| M 1.7 (Techo) | 183 lx | (>= 30 lx) | 0.63 | (>= 0.10) |
| M 1.1 (Pared) | 189 lx | (>= 50 lx) | 0.89 | (>= 0.10) |
| M 1.2 (Pared) | 194 lx | (>= 50 lx) | 0.63 | (>= 0.10) |
| M 1.3 (Pared) | 146 lx | (>= 50 lx) | 0.34 | (>= 0.10) |
| M 1.4 (Pared) | 143 lx | (>= 50 lx) | 0.35 | (>= 0.10) |
| M 1.5 (Pared) | 185 lx | (>= 50 lx) | 0.74 | (>= 0.10) |
| M 1.6 (Pared) | 194 lx | (>= 50 lx) | 0.83 | (>= 0.10) |

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022




2 Espacio 1

2.2 Resumen, Espacio 1

2.2.1 Resumen de los resultados, Superficie de evaluación 1

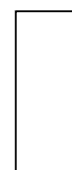
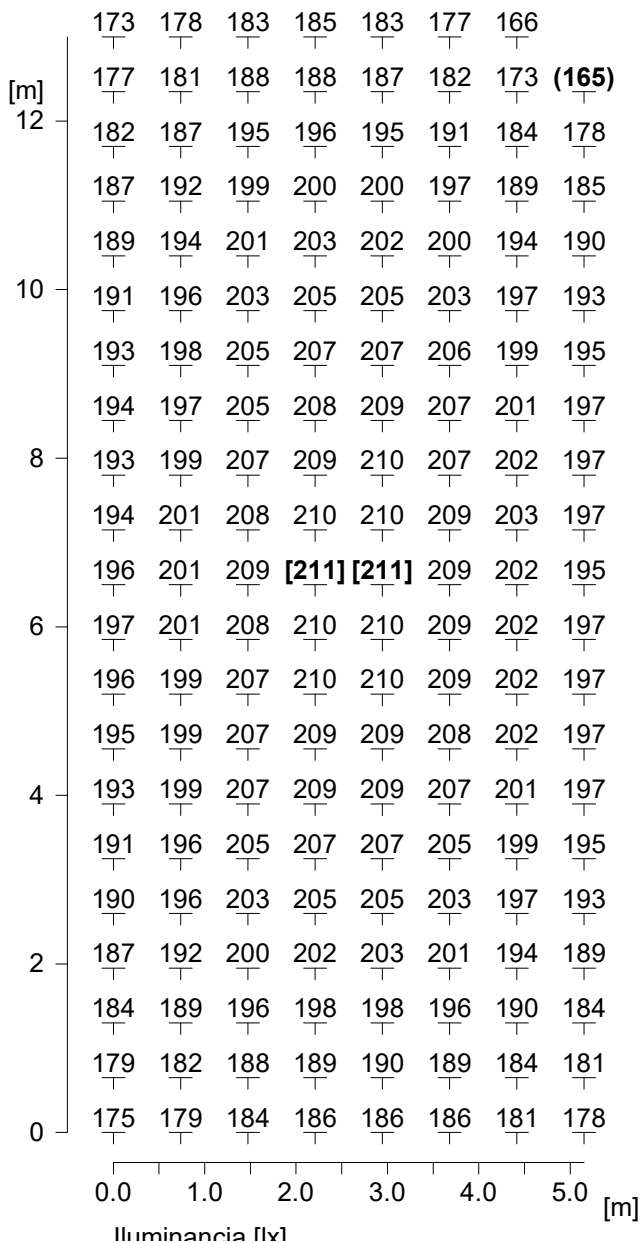
Tipo Cant. Producto

| | | |
|---|----|---|
| 3 | 10 | Relux Demo |
|  | | Nº de artículo : !0MJ2712L18830 |
| | | Nombre de la lum. : Access Ceiling Mounted Luminaire |
| | | Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 500 lm |

2 Espacio 1

2.3 Resultados del cálculo, Espacio 1

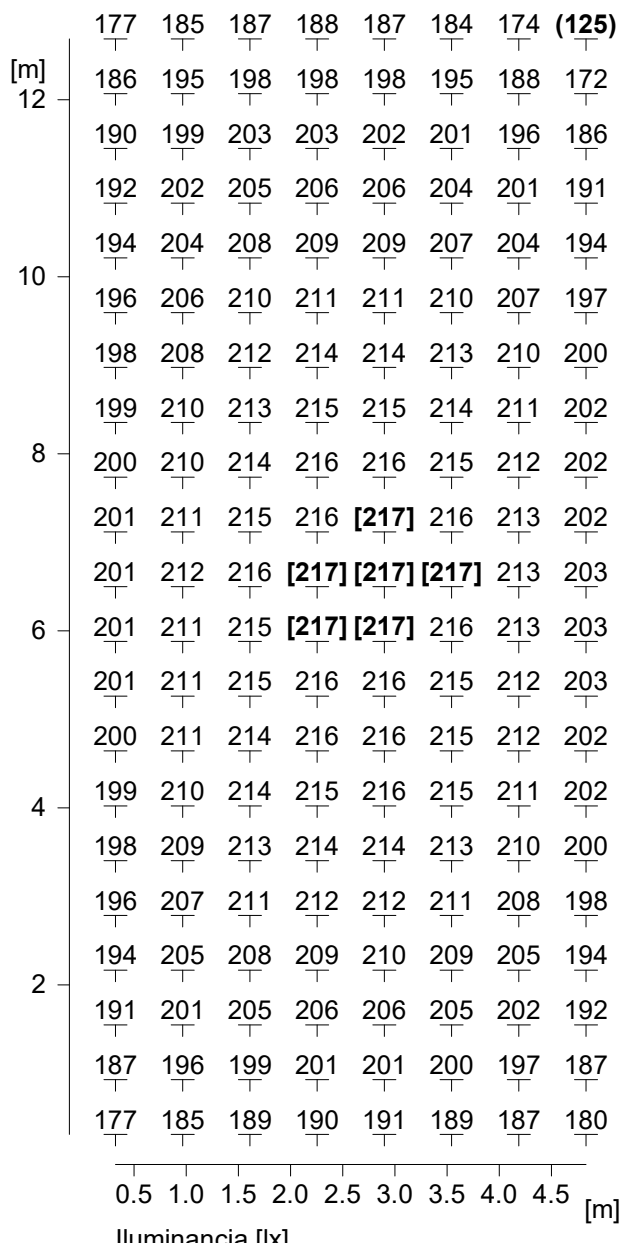
2.3.1 Tabla, Suelo (E)



| | | |
|--------------------|-----------|-------------------|
| Iluminancia media | Em | : 196 lx |
| Iluminancia mínima | Emin | : 165 lx |
| Iluminancia máxima | Emax | : 211 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.19 (0.84) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.28 (0.78) |

2.3 Resultados del cálculo, Espacio 1

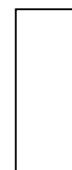
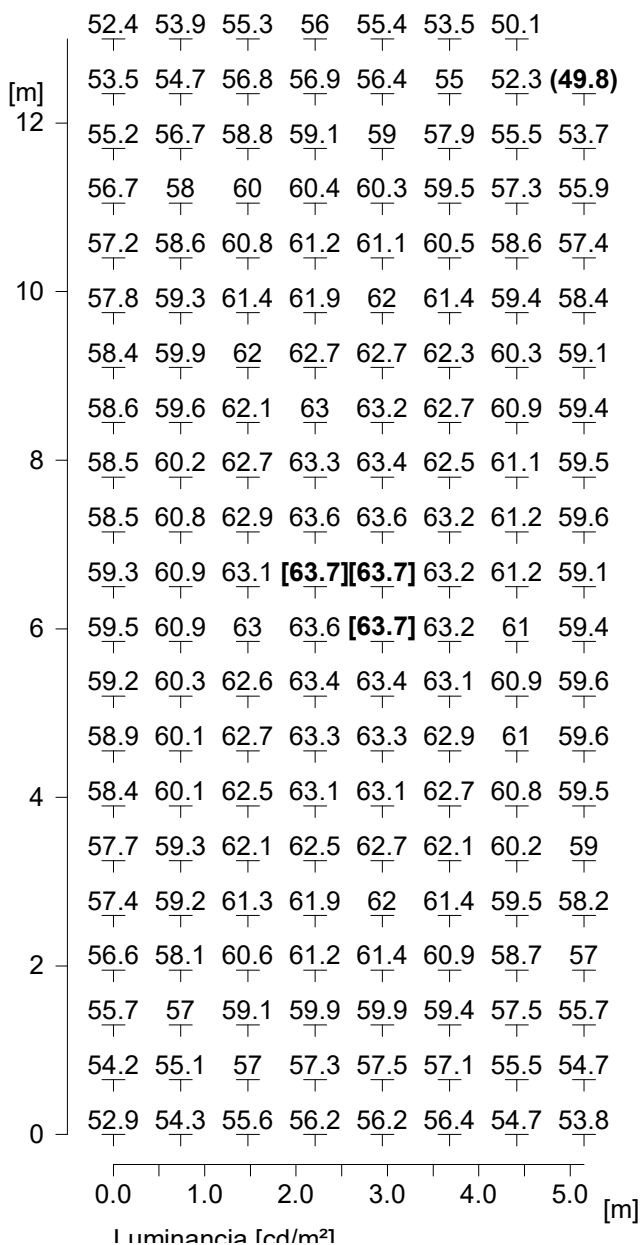
2.3.2 Tabla, Nivel útil 1.1 (E)



| | | |
|--------------------------------|-----------|-------------------|
| Altura del nivel de referencia | : | 0.00 m |
| Iluminancia media | Em | : 204 lx |
| Iluminancia mínima | Emin | : 125 lx |
| Iluminancia máxima | Emax | : 217 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.63 (0.61) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.74 (0.58) |

2.3 Resultados del cálculo, Espacio 1

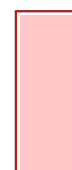
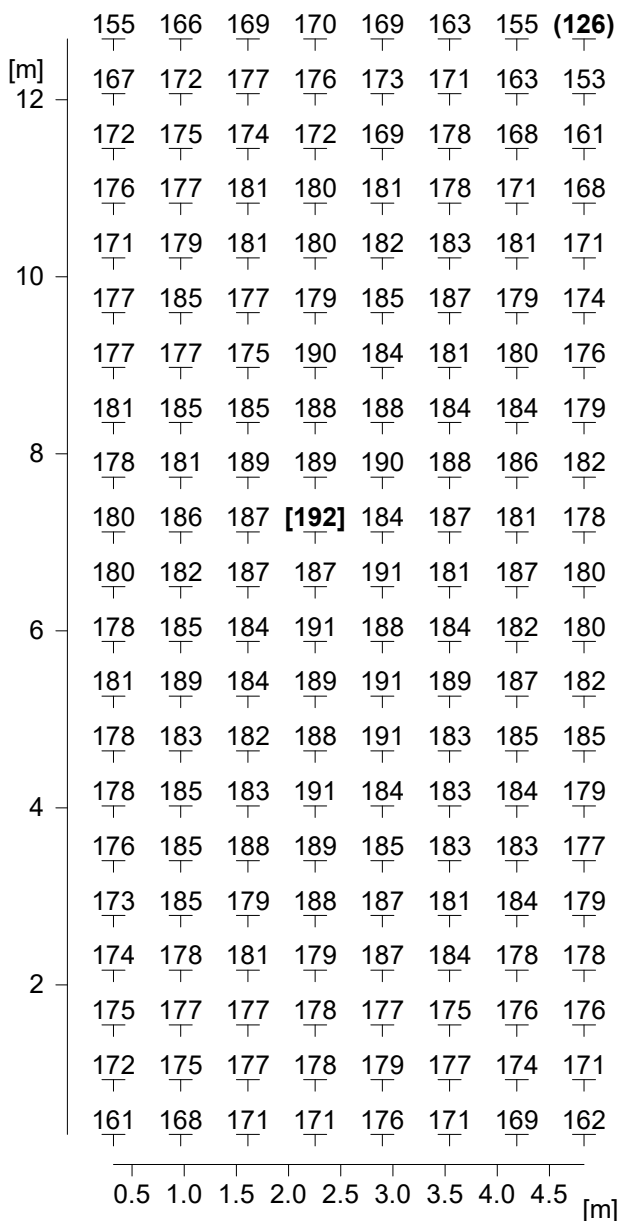
2.3.3 Tabla, Suelo (L)



| | | |
|-------------------|----|--------------------------|
| Luminancia media | Lm | : 59.4 cd/m ² |
| Luminancia mínima | Lm | : 49.8 cd/m ² |
| Luminancia máxima | Lm | : 63.7 cd/m ² |

2.3 Resultados del cálculo, Espacio 1

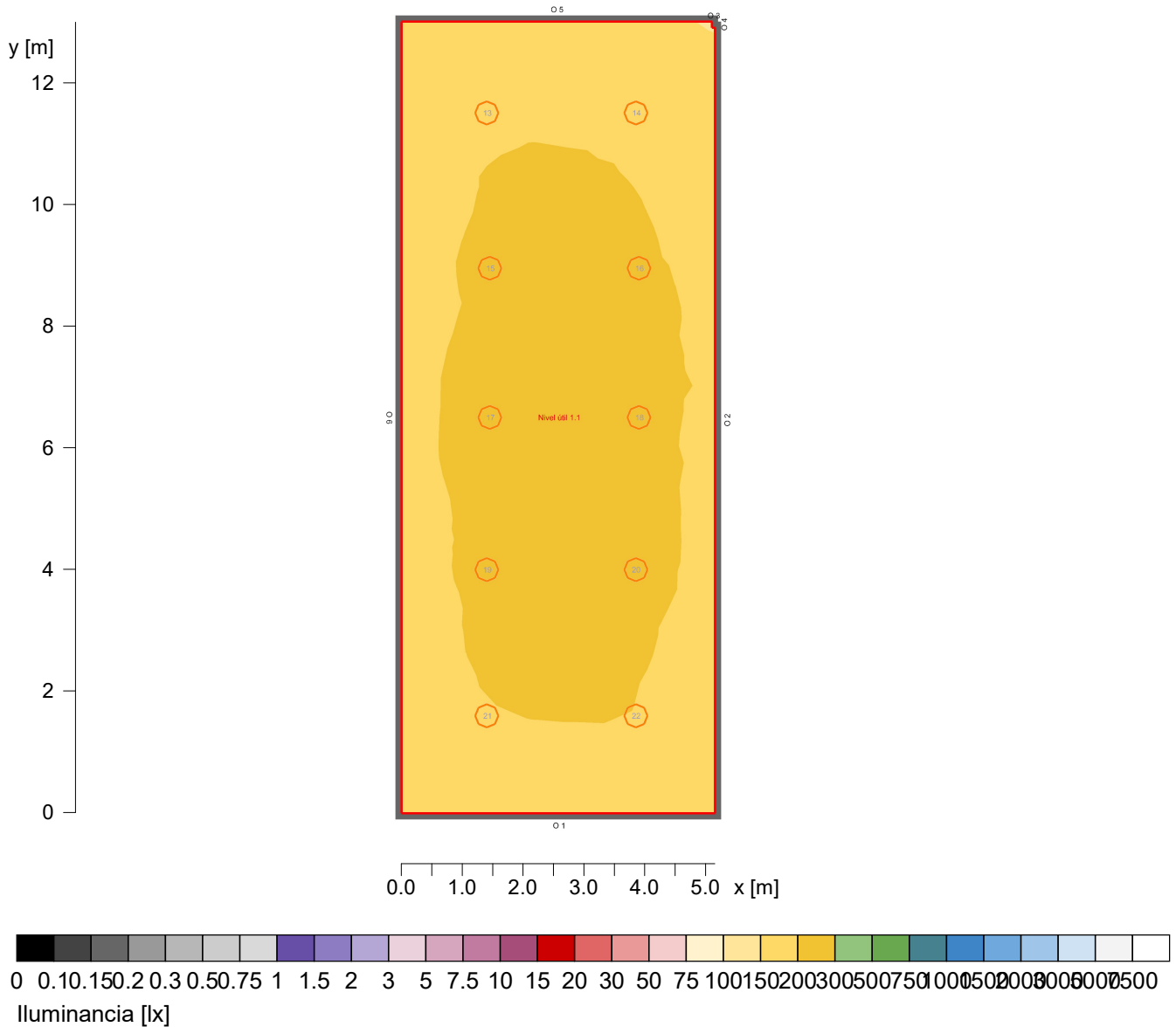
2.3.4 Tabla, Nivel útil 1.1 (Ec)



| | | |
|--------------------------------|-----------|-------------------|
| Iluminancia cilíndrica | | |
| Altura del nivel de referencia | | : 0.45 m |
| Iluminancia media | Em | : 179 lx |
| Iluminancia mínima | Emin | : 126 lx |
| Iluminancia máxima | Emax | : 192 lx |
| Uniformidad Uo | Emin/Em | : 1 : 1.43 (0.70) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.53 (0.65) |

2.3 Resultados del cálculo, Espacio 1

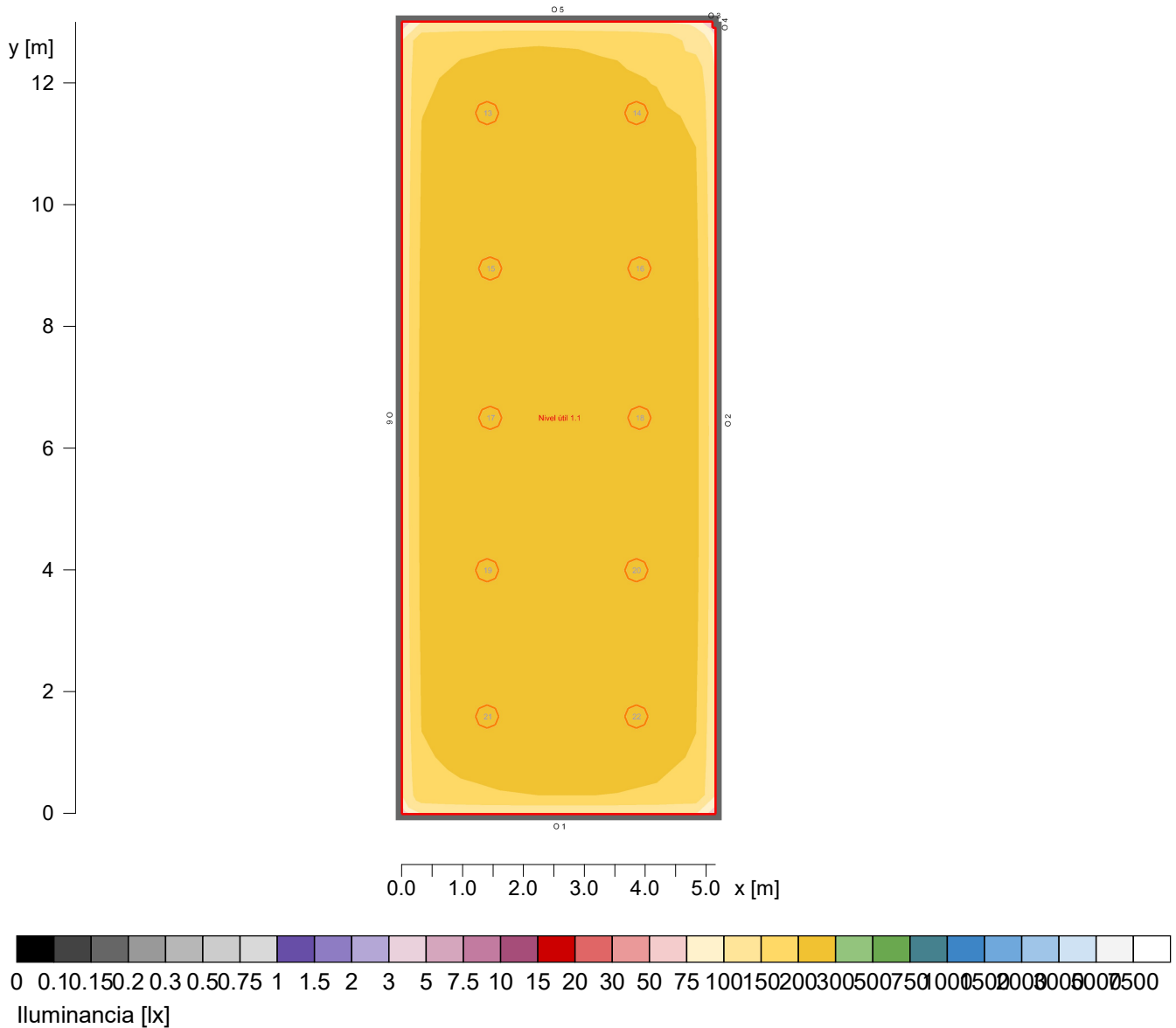
2.3.5 Colores falsos, Suelo (E)



| | | |
|--------------------|-----------|-------------------|
| Iluminancia media | Em | : 196 lx |
| Iluminancia mínima | Emin | : 165 lx |
| Iluminancia máxima | Emax | : 211 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.19 (0.84) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.28 (0.78) |

2.3 Resultados del cálculo, Espacio 1

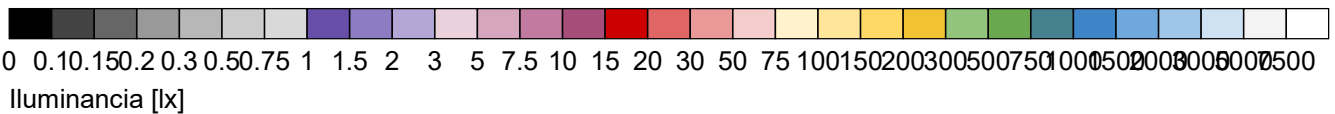
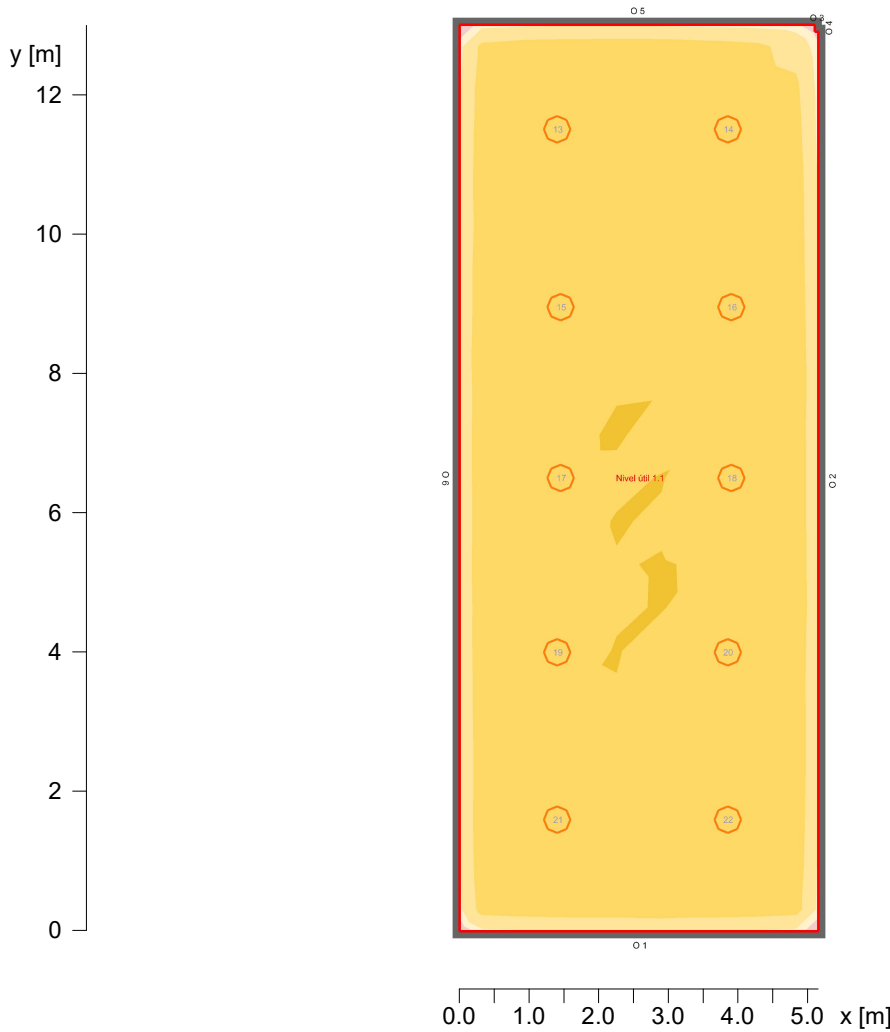
2.3.6 Colores falsos, Nivel útil 1.1 (E)



| | | |
|--------------------------------|-----------|-------------------|
| Altura del nivel de referencia | : | 0.00 m |
| Iluminancia media | Em | : 204 lx |
| Iluminancia mínima | Emin | : 125 lx |
| Iluminancia máxima | Emax | : 217 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.63 (0.61) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.74 (0.58) |

2.3 Resultados del cálculo, Espacio 1

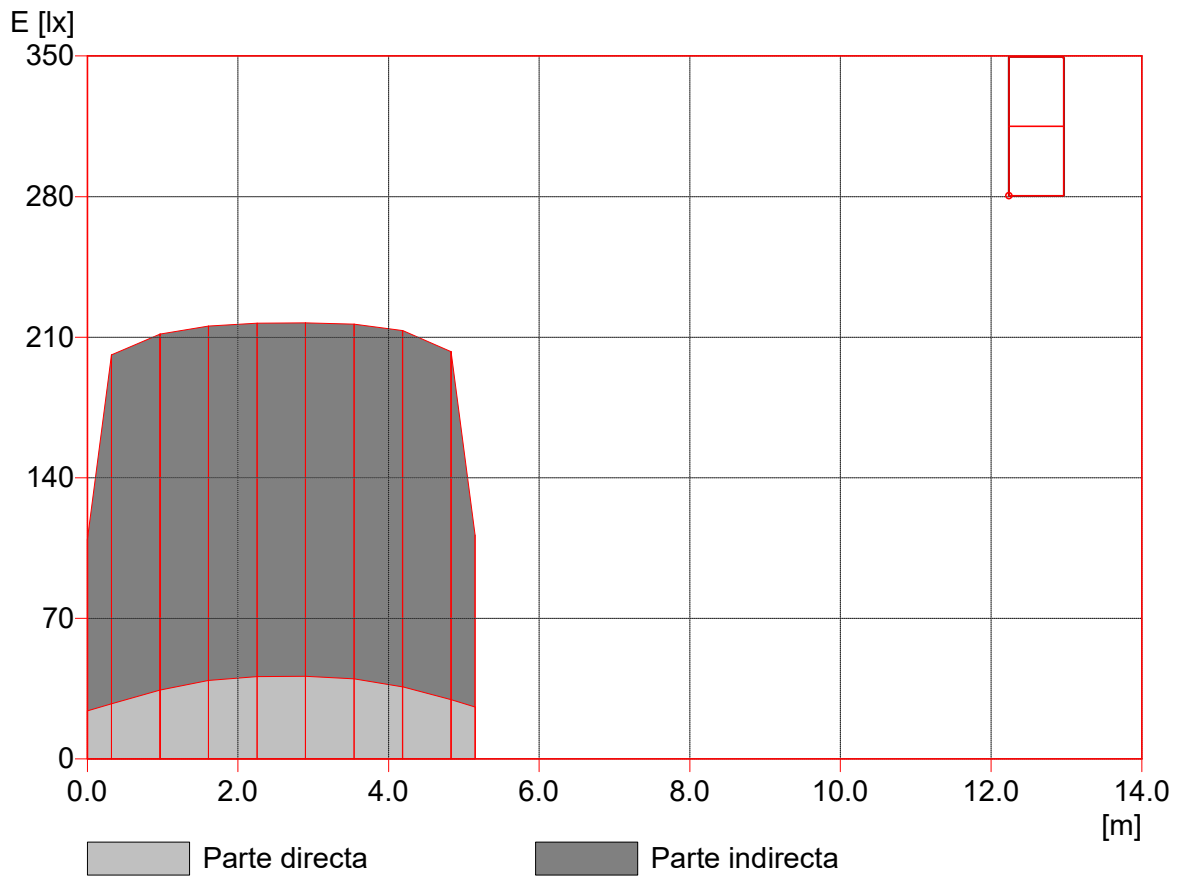
2.3.7 Colores falsos, Nivel útil 1.1 (Ec)



| | | |
|--------------------------------|-----------|-------------------|
| Iluminancia cilíndrica | | |
| Altura del nivel de referencia | | : 0.45 m |
| Iluminancia media | Em | : 179 lx |
| Iluminancia mínima | Emin | : 126 lx |
| Iluminancia máxima | Emax | : 192 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.43 (0.70) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.53 (0.65) |

2.3 Resultados del cálculo, Espacio 1

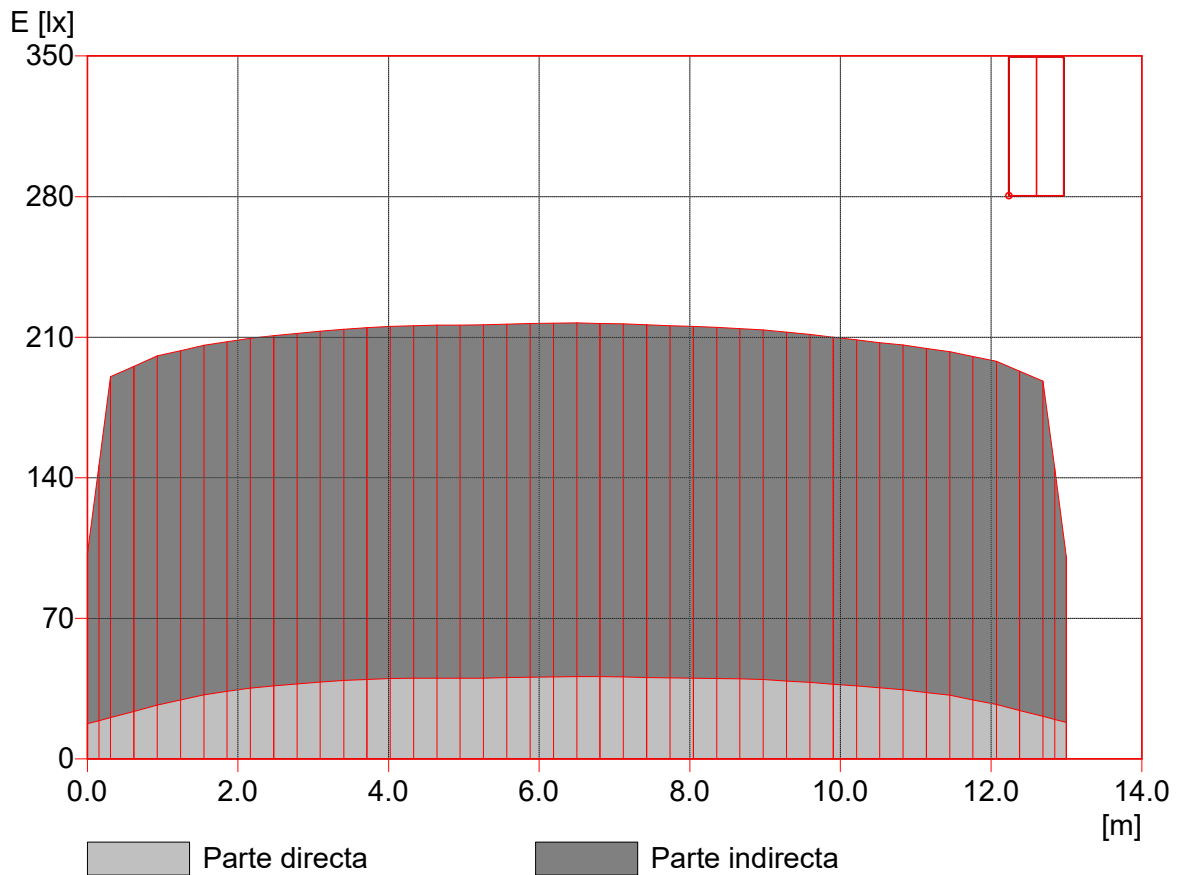
2.3.8 Sección longitudinal, Nivel útil 1.1 (E)



Sección longitudinal en y = 6.50 m

2.3 Resultados del cálculo, Espacio 1

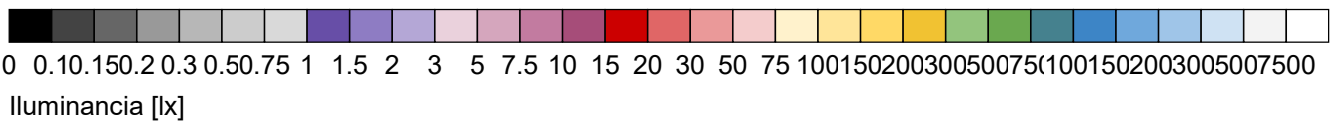
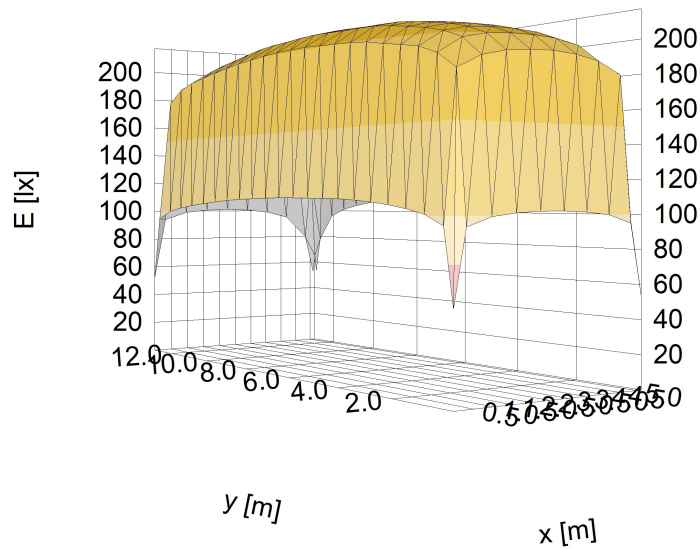
2.3.9 Sección transversal, Nivel útil 1.1 (E)



Sección transversal en x = 2.58 m

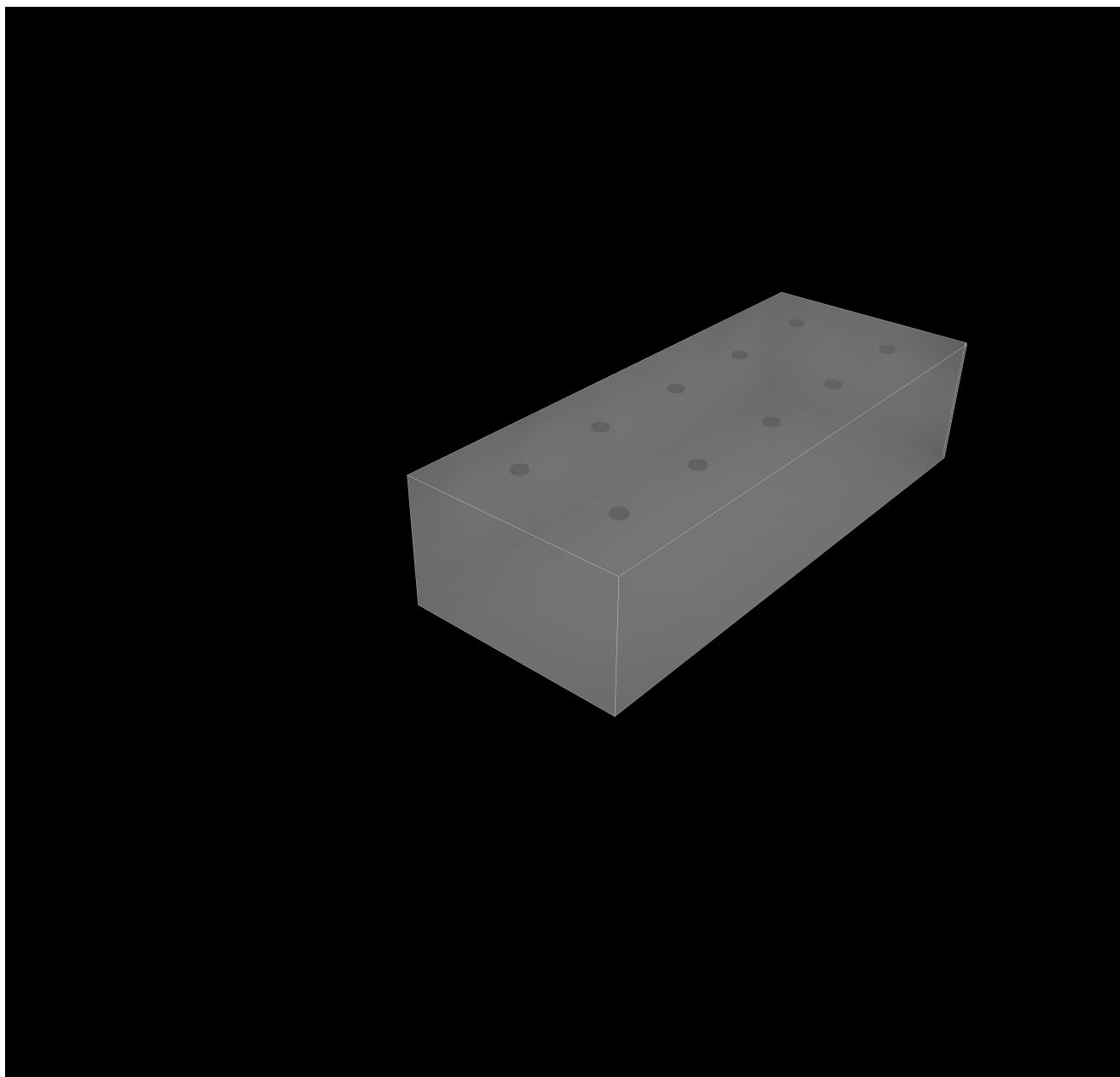
2.3 Resultados del cálculo, Espacio 1

2.3.10 Relieve 3D, Nivel útil 1.1 (E)



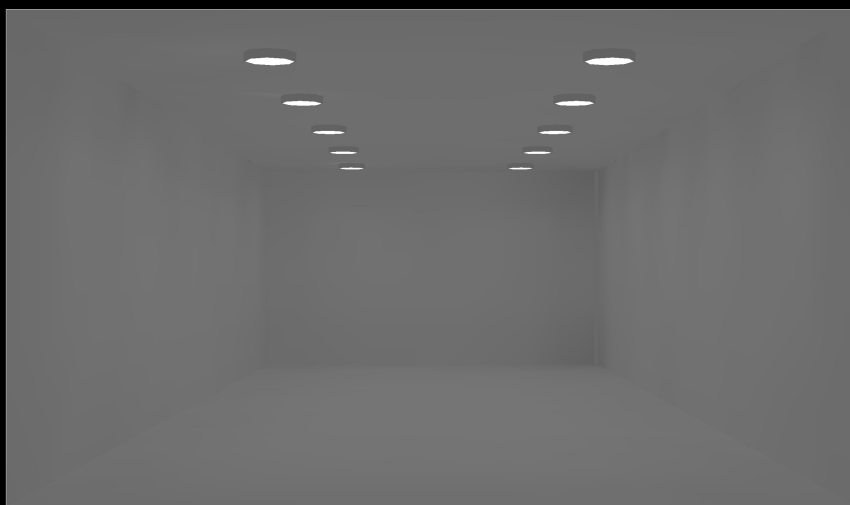
2.3 Resultados del cálculo, Espacio 1

2.3.11 Luminancia-3D, Vista 1



2.3 Resultados del cálculo, Espacio 1

2.3.12 Luminancia-3D, Vista desde delante



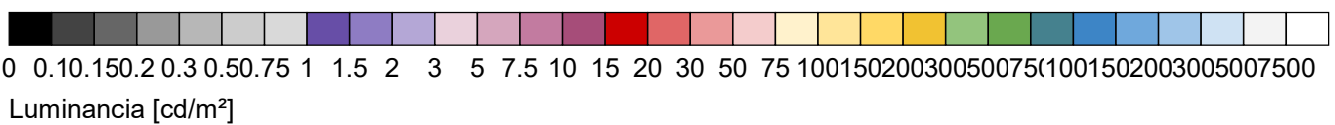
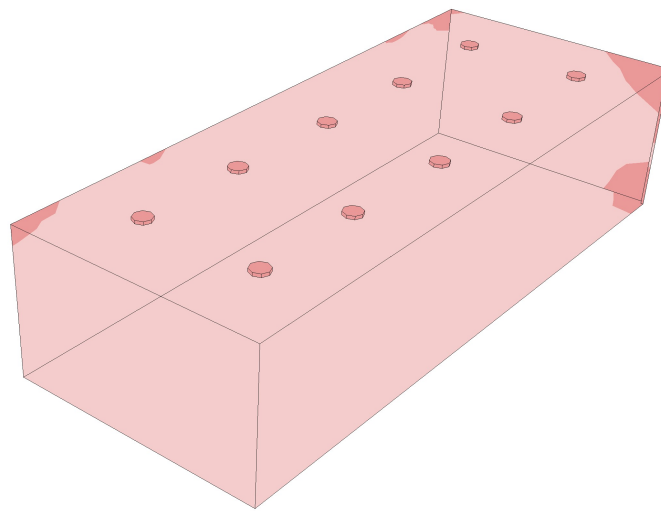
2.3 Resultados del cálculo, Espacio 1

2.3.13 Luminancia-3D, Vista desde la izquierda



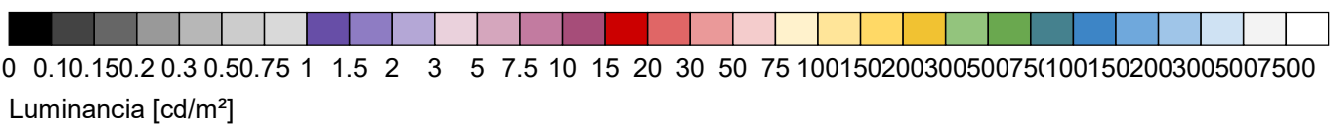
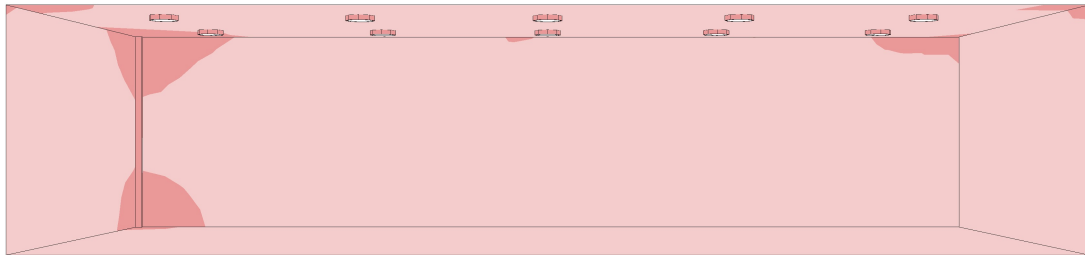
2.3 Resultados del cálculo, Espacio 1

2.3.14 Colores falsos-3D, Vista 1 (L)



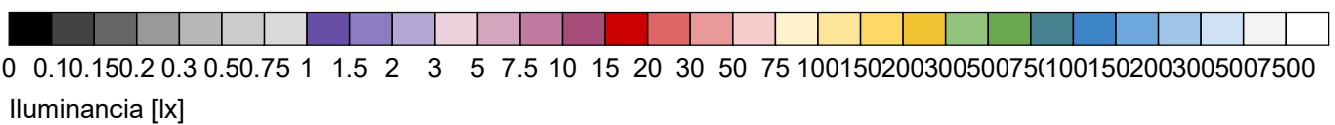
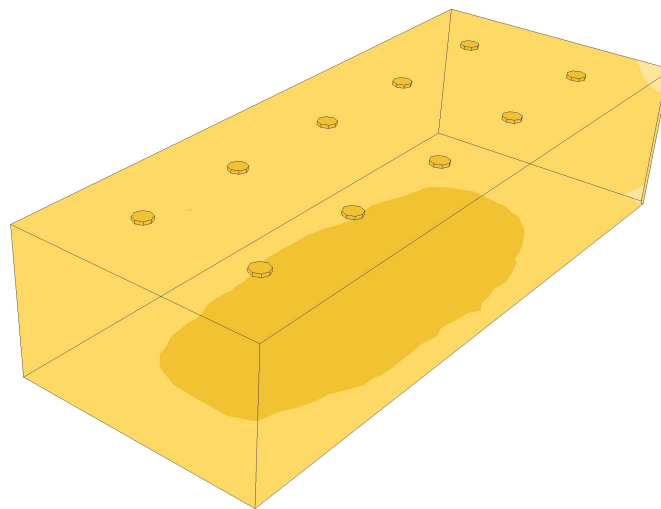
2.3 Resultados del cálculo, Espacio 1

2.3.15 Colores falsos-3D, Vista desde la izquierda (L)



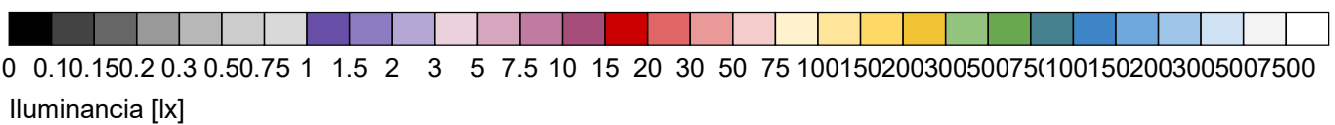
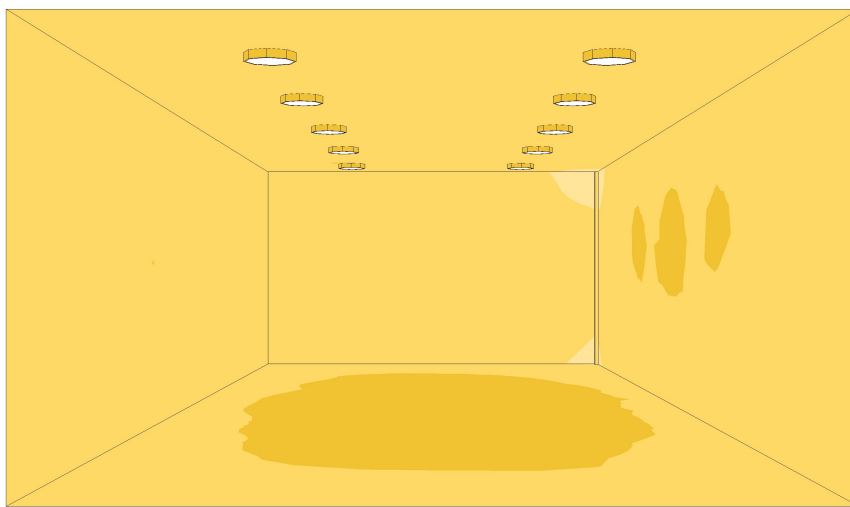
2.3 Resultados del cálculo, Espacio 1

2.3.16 Colores falsos-3D, Vista 1 (E)



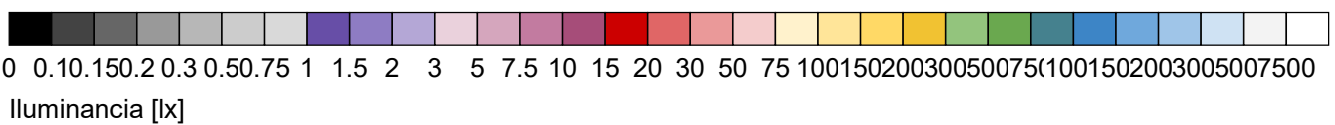
2.3 Resultados del cálculo, Espacio 1

2.3.17 Colores falsos-3D, Vista desde delante (E)



2.3 Resultados del cálculo, Espacio 1

2.3.18 Colores falsos-3D, Vista desde la izquierda (E)



Instalación :

Nº del proyecto : Ambiente A
Cliente : Leonardo Garcia
Responsable :
Fecha : 20.07.2022

Los siguientes valores se basan en los cálculos exactos en lámparas, luminarias calibradas y en su disposición nominal. En la práctica pueden producirse variaciones graduales. Quedan excluidos los derechos de garantía para los datos de luminarias. El fabricante no se responsabiliza de los daños subsiguientes o daños originados al usuario o a terceros.

1 Datos de luminarias

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.1 Hoja de datos

Fabricante: Relux Demo



!0MJ2712L18830 Wall and ceiling luminaire-ceiling mounted Access Ceiling Mounted Luminaire

POSIVO® LED flat, wall and ceiling luminaire
primary optical cover: enclosure, of PMMA
light emission: direct distribution
installation type: surface-mounted
LED, luminous flux: 1.600 lm
luminous efficacy: 76lm/W
light colour: 830
colour temperature: 3000K
control gear: ECG, with terminal, 3-pole
mains connection: 220..240V
connected load: 21W, housing, round, of sheet steel, white
diameter: 380 mm
height: 65mm
ring, of aluminium, silver
protection rating (complete): IP40
insulation class (complete): insulation class I (protective earthing)
certification: CE
impact resistance: IK03

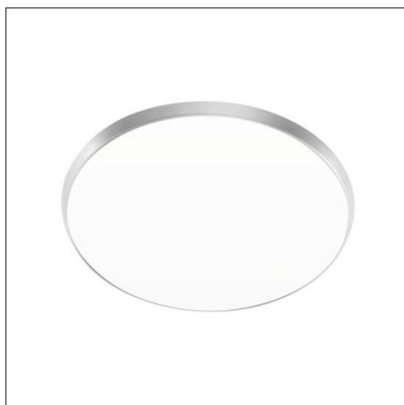
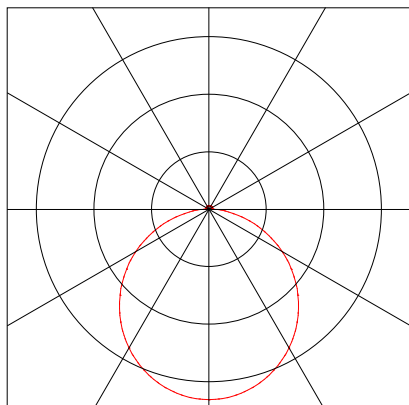
Datos de luminarias

Fotometría absoluta
Eficacia de luminaria : 83.33 lm/W
Clasificación : A42 ↓96.1% ↑3.9%
CIE Flux Codes : 46 77 94 96 100
UGR 4H 8H : 20.1 / 20.1
Potencia : 12 W
Flujo luminoso : 1000 lm

Equipamiento con

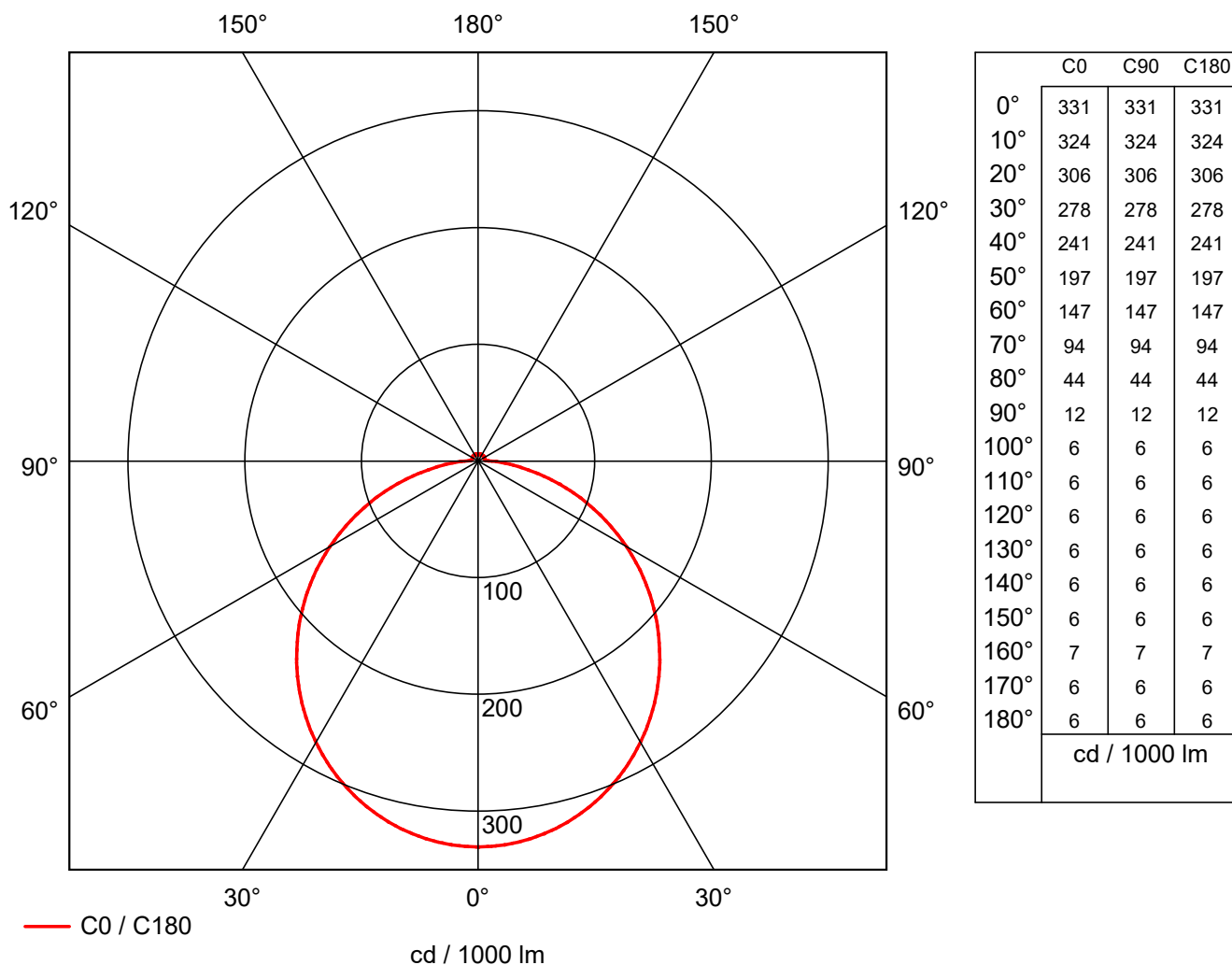
Cantidad : 1
Designación : LED 3000K /
CRI >= 80
Color : 3000K
Reproducción cromática 80

Dimensiones : Ø380 mm x 65 mm



1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.2 CDL



Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 10
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rx523676484.ltd

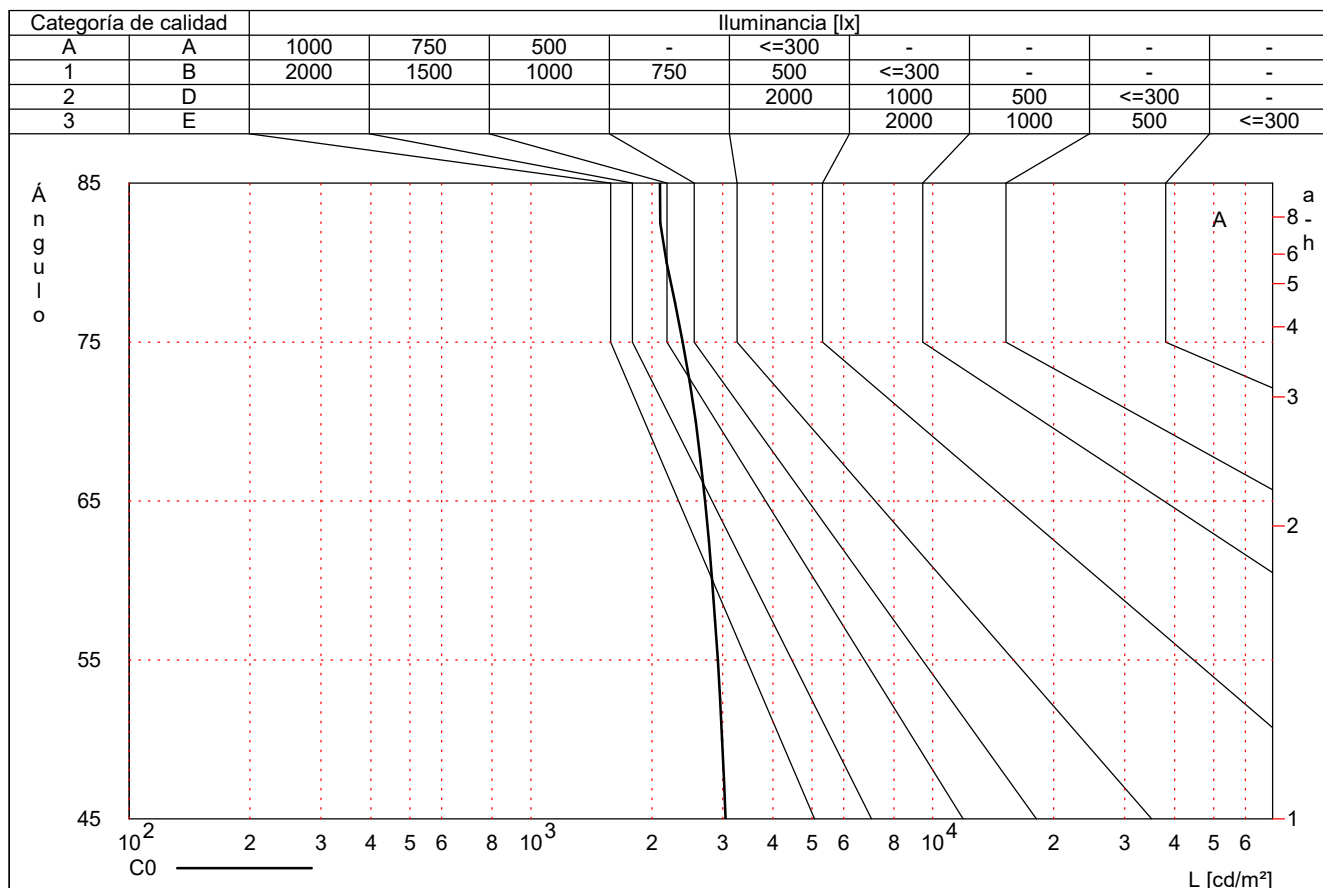
Eficacia de luminaria : 83.33 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

Objeto :
 Instalación :
 N° del proyecto : Ambiente A
 Fecha : 20.07.2022



1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.3 Diagrama Söllner



Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 10
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx523676484.ltd

Eficacia de luminaria : 83.33 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.4 Tabla de luminancia

| | C0 | C15 | C30 | C45 | C60 | C75 | C90 | C105 | C120 | C135 | C150 | C165 |
|-----|------|------|------|------|--------|--------|------|------|------|------|--------|--------|
| 65° | 2712 | 2712 | 2712 | 2712 | [2712] | [2712] | 2712 | 2712 | 2712 | 2712 | [2712] | [2712] |
| 70° | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 |
| 75° | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 |
| 80° | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 |
| 85° | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 |

| | C180 | C195 | C210 | C225 | C240 | C255 | C270 | C285 | C300 | C315 | C330 | C345 |
|-----|------|------|------|------|--------|--------|------|------|------|------|--------|--------|
| 65° | 2712 | 2712 | 2712 | 2712 | [2712] | [2712] | 2712 | 2712 | 2712 | 2712 | [2712] | [2712] |
| 70° | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 | 2571 |
| 75° | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 | 2386 |
| 80° | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 | 2178 |
| 85° | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 | 2094 |

Luminancia [cd/m²]

Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 10
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx523676484.ltd

Eficacia de luminaria : 83.33 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

Objeto :
 Instalación :
 N° del proyecto : Ambiente A
 Fecha : 20.07.2022



1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.5 Valoración del deslumbramiento según UGR

Grados de reflexión

| | | | | | | | | | | |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Techo | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Paredes | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Suelo | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

Dimensiones del espacio

| x | | Vista en dirección C0 | | | | | Vista en dirección C90 | | | | |
|-----|-----|-----------------------|------|------|------|------|------------------------|------|------|------|------|
| | y | | | | | | | | | | |
| 2H | 2H | 15.8 | 17.4 | 16.2 | 17.8 | 18.2 | 15.8 | 17.4 | 16.2 | 17.8 | 18.2 |
| | 3H | 17.4 | 18.9 | 17.9 | 19.3 | 19.7 | 17.4 | 18.9 | 17.9 | 19.3 | 19.7 |
| | 4H | 18.1 | 19.5 | 18.6 | 19.9 | 20.3 | 18.1 | 19.5 | 18.6 | 19.9 | 20.3 |
| | 6H | 18.7 | 19.9 | 19.1 | 20.3 | 20.8 | 18.7 | 19.9 | 19.1 | 20.3 | 20.8 |
| | 8H | 18.8 | 20.0 | 19.3 | 20.5 | 21.0 | 18.8 | 20.0 | 19.3 | 20.5 | 21.0 |
| | 12H | 19.0 | 20.1 | 19.4 | 20.6 | 21.1 | 19.0 | 20.1 | 19.4 | 20.6 | 21.1 |
| 4H | 2H | 16.6 | 17.9 | 17.0 | 18.3 | 18.8 | 16.6 | 17.9 | 17.0 | 18.3 | 18.8 |
| | 3H | 18.3 | 19.5 | 18.8 | 20.0 | 20.5 | 18.3 | 19.5 | 18.8 | 20.0 | 20.5 |
| | 4H | 19.2 | 20.2 | 19.7 | 20.7 | 21.2 | 19.2 | 20.2 | 19.7 | 20.7 | 21.2 |
| | 6H | 19.8 | 20.7 | 20.3 | 21.2 | 21.8 | 19.8 | 20.7 | 20.3 | 21.2 | 21.8 |
| | 8H | 20.1 | 20.9 | 20.6 | 21.4 | 22.0 | 20.1 | 20.9 | 20.6 | 21.4 | 22.0 |
| | 12H | 20.3 | 21.1 | 20.8 | 21.6 | 22.2 | 20.3 | 21.1 | 20.8 | 21.6 | 22.2 |
| 8H | 4H | 19.5 | 20.3 | 20.0 | 20.9 | 21.4 | 19.5 | 20.3 | 20.0 | 20.9 | 21.4 |
| | 6H | 20.2 | 21.0 | 20.8 | 21.5 | 22.1 | 20.2 | 21.0 | 20.8 | 21.5 | 22.1 |
| | 8H | 20.6 | 21.3 | 21.2 | 21.8 | 22.4 | 20.6 | 21.3 | 21.2 | 21.8 | 22.4 |
| | 12H | 20.9 | 21.5 | 21.5 | 22.0 | 22.6 | 20.9 | 21.5 | 21.5 | 22.0 | 22.6 |
| 12H | 4H | 19.5 | 20.3 | 20.1 | 20.8 | 21.4 | 19.5 | 20.3 | 20.1 | 20.8 | 21.4 |
| | 6H | 20.4 | 21.0 | 21.0 | 21.6 | 22.2 | 20.4 | 21.0 | 21.0 | 21.6 | 22.2 |
| | 8H | 20.8 | 21.3 | 21.3 | 21.9 | 22.5 | 20.8 | 21.3 | 21.3 | 21.9 | 22.5 |

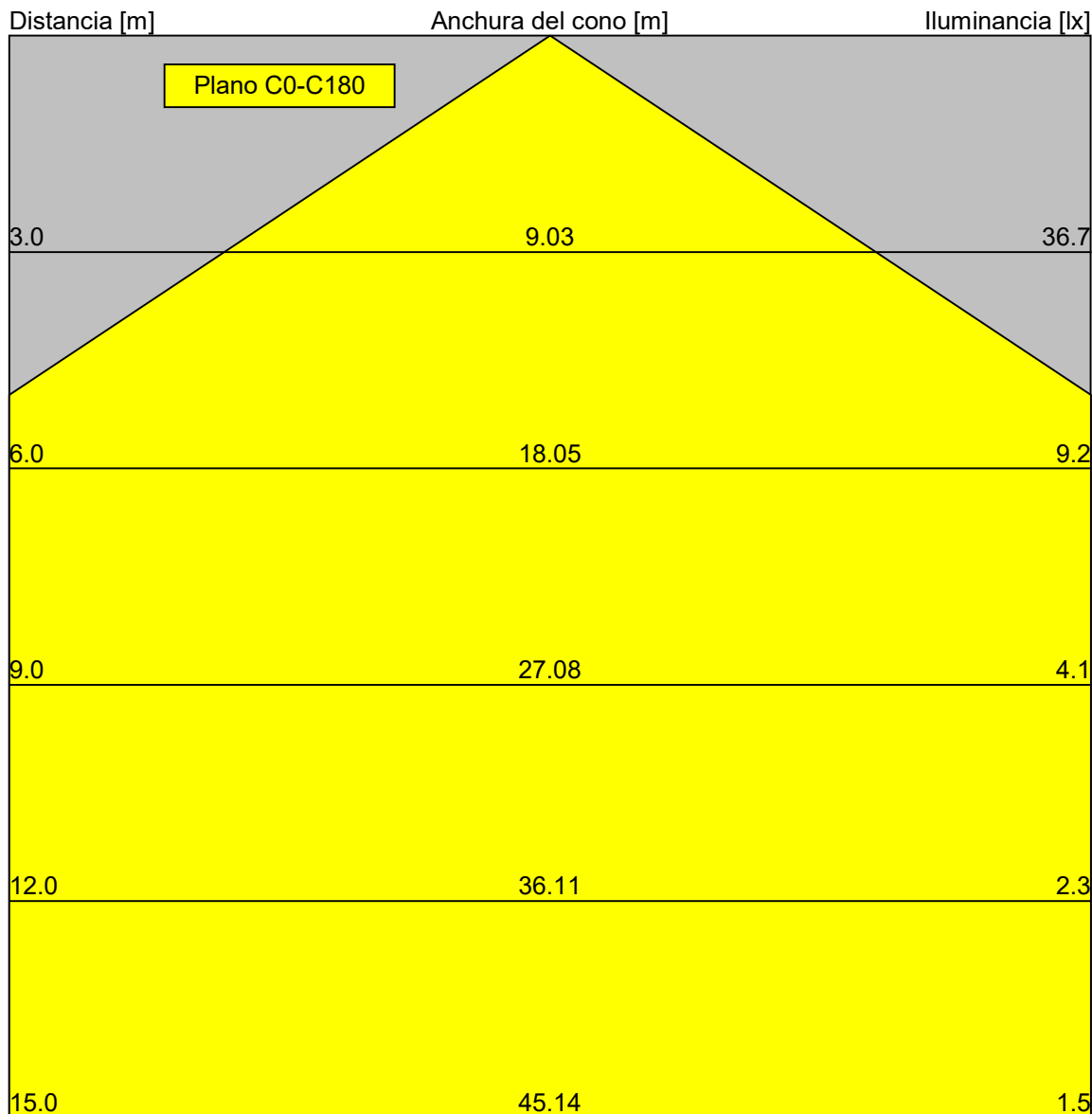
Distancia entre las luminarias: 0.25

Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 10
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx523676484.ltd

Eficacia de luminaria : 83.33 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.1 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.1.6 Diagrama cónico



Nota: La iluminancia se calcula con $I(\gamma=0)$.

| | | | |
|--------------------|---------------------------------------|------------------------|----------------------|
| Fabricante | : Relux Demo | Eficacia de luminaria | : 83.33 lm/W (A42) |
| Número de pedido | : !0MJ2712L18830 | Distribución de la luz | : rotación simétrica |
| Nombre de la lum. | : Access Ceiling Mounted Luminaire | Ángulo de radiación | : 112.8° C0-C180 |
| Equipamiento | : 1 x LED 3000K / CRI >= 80 12 W / 10 | | |
| Dimensiones | : D 380 mm x H 65 mm | | |
| Nombre de archivo: | rlx523676484.idt | | |

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022




2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

Datos de productos:

Tipo Cant. Producto

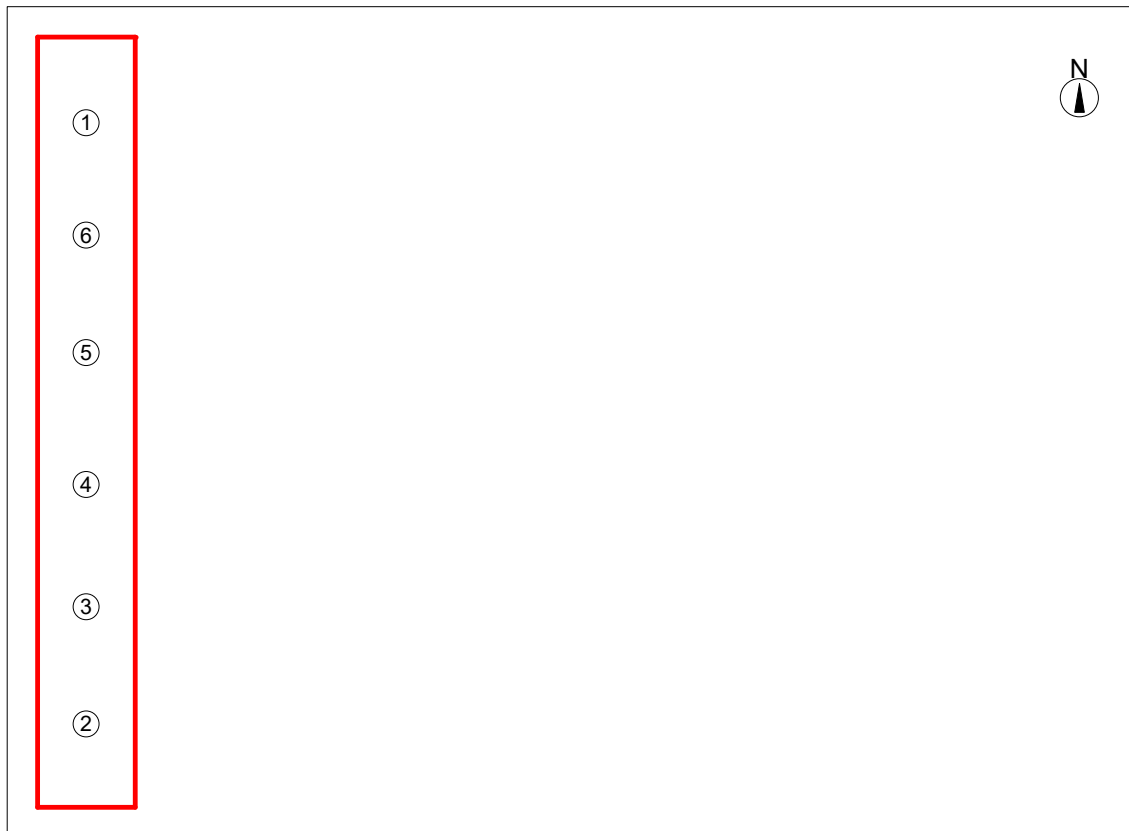
| | | |
|---|---|---|
| 3 | 6 | Relux Demo |
|  | | Nº de artículo : !0MJ2712L18830 |
| | | Nombre de la lum. : Access Ceiling Mounted Luminaire |
| | | Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 1000 lm |

2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

Piso con luminaria y posiciones del sensor:



| N° | Centro | | | Ángulo de rotación alrededor de | | | Coordenadas del objetivo | | |
|---|--------|-------|-------|---------------------------------|--------|---------|--------------------------|--------|--------|
| | X [m] | Y [m] | Z [m] | Z [°] | C0 [°] | C90 [°] | Xa [m] | Ya [m] | Za [m] |
| Relux Demo Access Ceiling Mounted Luminaire !0MJ2712L18830 | | | | | | | | | |
| 1 | 1.00 | 14.00 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 14.00 | 0.00 |
| 2 | 1.00 | 1.70 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 1.70 | 0.00 |
| 3 | 1.00 | 4.10 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 4.10 | 0.00 |
| 4 | 1.00 | 6.60 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 6.60 | 0.00 |
| 5 | 1.00 | 9.30 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 9.30 | 0.00 |
| 6 | 1.00 | 11.70 | 2.50 | 0.00 | 0.00 | 0.00 | 1.00 | 11.70 | 0.00 |

Elementos de diseño

Superficie de medición

| N° | xm[m] | ym[m] | zm[m] | Longitud | Anchura | Ángulo de rotación | | |
|---------------|-------|-------|-------|----------|---------|--------------------|-------|---------|
| | | | | | | Eje-z | Eje-L | Eje-Q |
| Niv. útil 1.1 | | | | | | | | |
| | 0.00 | 0.00 | 0.00 | 2.00 | 15.75 | 0.00 | 0.00 | 0.00 |
| M 1.1 (O) | 2.00 | 0.00 | 0.00 | 2.00 | 0.00 | 0.00 | 90.00 | -180.00 |
| M 1.2 (O) | 2.00 | 15.75 | 0.00 | 0.00 | 15.75 | 0.00 | 90.00 | -90.00 |
| M 1.3 (O) | 2.00 | 15.75 | 0.00 | 0.00 | 0.00 | 0.00 | 90.00 | 90.00 |
| M 1.4 (O) | 2.00 | 15.75 | 0.00 | 0.00 | 0.00 | 0.00 | 90.00 | -90.00 |
| M 1.5 (O) | 0.00 | 15.75 | 0.00 | 2.00 | 0.00 | 0.00 | 90.00 | -0.00 |
| M 1.6 (O) | 0.00 | 0.00 | 0.00 | 0.00 | 15.75 | 0.00 | 90.00 | 90.00 |

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022



2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

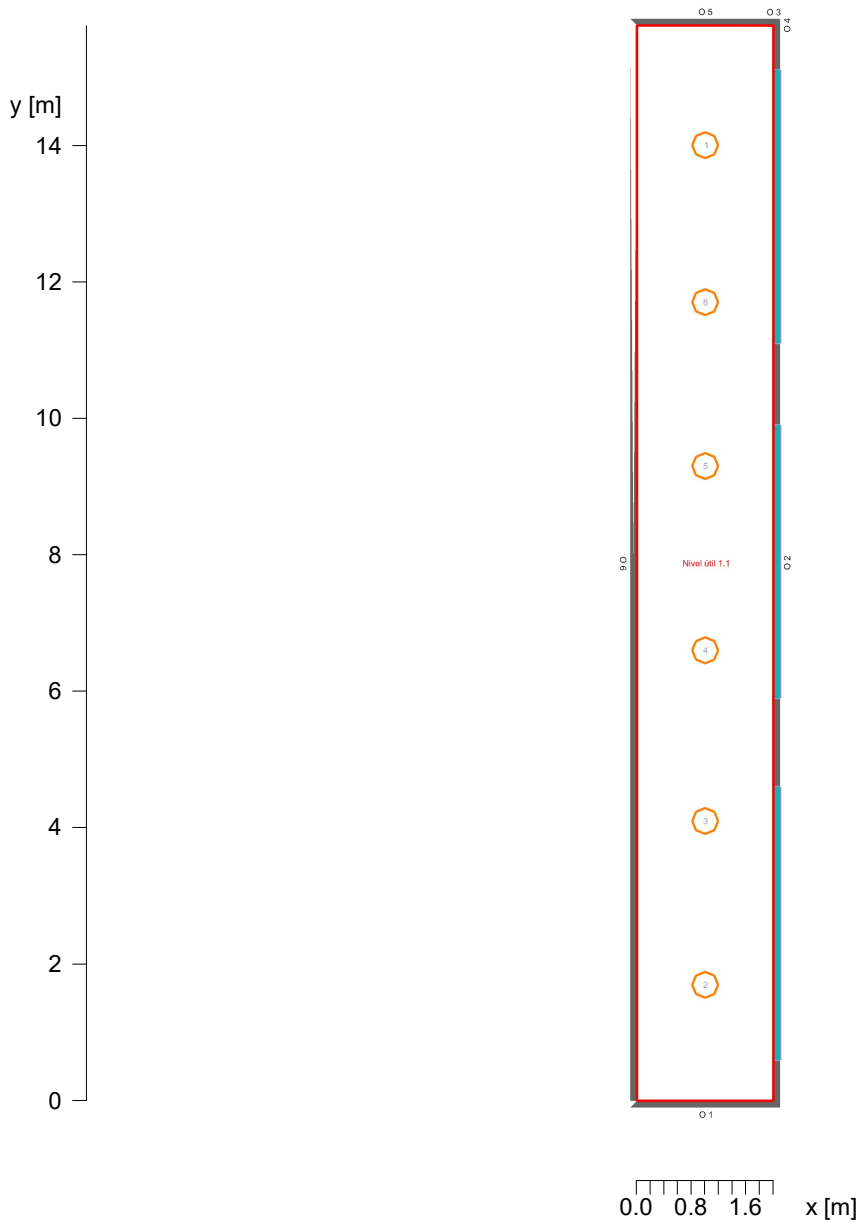
M 1.7 (D 0.00 15.75 3.00 2.00 15.75 180.00 0.00 180.00

Ventana

| Nº | Pared | x'[m] | y'[m] | Anchura | Altura | tau[%] | baquet. | sucied. |
|-------|-------|-------|-------|---------|--------|--------|---------|---------|
| F 2.3 | 2 | 2.00 | 9.90 | 4.00 | 0.70 | 80 | 1.00 | 0.90 |
| F 2.4 | 2 | 2.00 | 15.10 | 4.00 | 0.70 | 80 | 1.00 | 0.90 |
| F 2.5 | 2 | 2.00 | 4.60 | 4.00 | 0.70 | 80 | 1.00 | 0.90 |

2.1 Descripción Espacio 1

2.1.2 Planta horizontal



Datos del espacio:

W1 : 2.00
 W2 : 15.75
 W3 : 0.00
 W4 : 0.00
 W5 : 2.00
 W6 : 15.75
 Suelo: ----
 Techo: ----

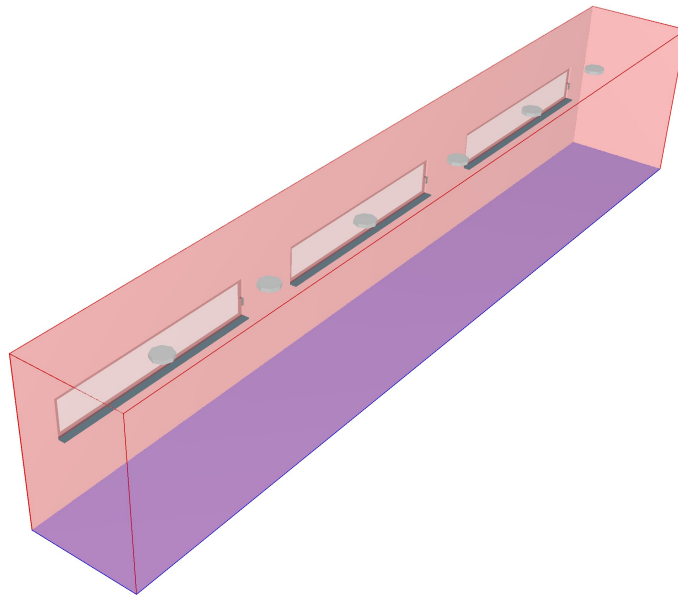
Grados de reflexión:

100.0 %
 100.0 %
 100.0 %
 100.0 %
 100.0 %
 100.0 %
 100.0 %
 100.0 %

Altura del espacio [m]: 3.00
 Altura del nivel útil [m]: 0.00
 Altura del nivel de luminarias [m]: 2.50

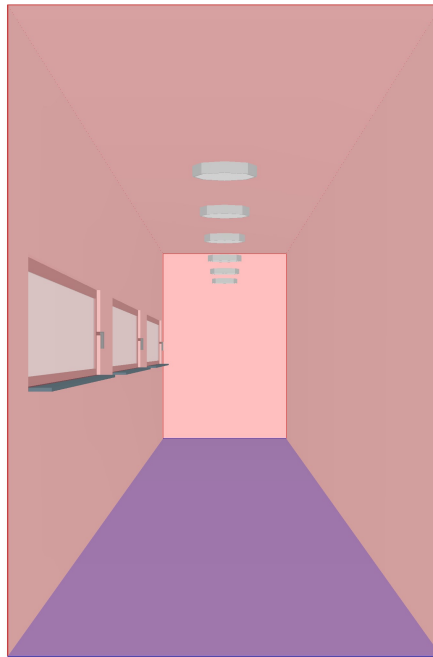
2.1 Descripción Espacio 1

2.1.3 Representación-3D, Vista 1



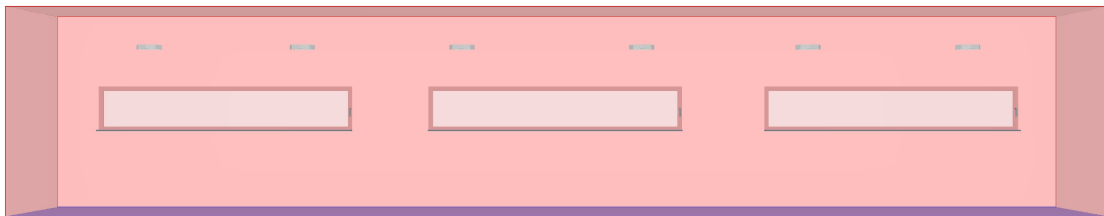
2.1 Descripción Espacio 1

2.1.4 Representación-3D, Vista desde detrás



2.1 Descripción Espacio 1

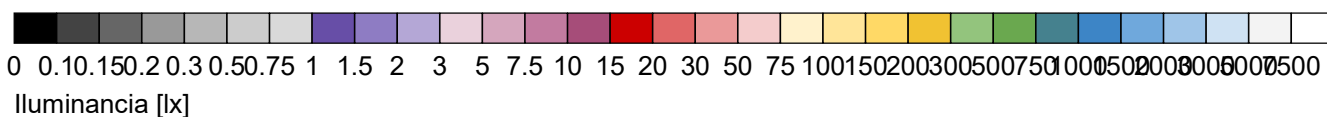
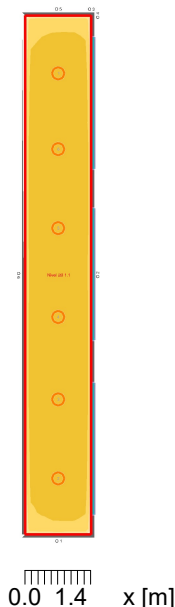
2.1.5 Representación-3D, Vista desde la izquierda



2 Espacio 1

2.2 Resumen, Espacio 1

2.2.1 Resumen de los resultados, Superficie de evaluación 1



General

| | |
|---|--|
| Algoritmo de cálculo utilizada | Parte indirecta media |
| Altura del nivel de luminarias | 2.50 m |
| Factor de mant. | 0.80 |
| Flujo luminoso total de lámparas | 6000.00 lm |
| Potencia total | 72.0 W |
| Potencia total por superficie (31.51 m ²) | 2.29 W/m ² (1.03 W/m ² /100lx) |

Superficie de evaluación 1 Nivel útil 1.1

Perfil de usuario: Oficinas: Escritura, escritura a máquina, lectura, tratamiento de datos (Ra >80.00)

| | horizontal | | cilíndrico | |
|------------------|------------|-------------|------------|------------|
| Em | 223 lx | (>= 200 lx) | 193 lx | (>= 50 lx) |
| Emin | 174 lx | | 143 lx | |
| Emin/Em (Uo) | 0.78 | (>= 0.60) | 0.74 | (>= 0.10) |
| Emin/Emax (Ud) | 0.71 | | | |
| UGR (1.6H 12.4H) | <=18.7 | (< 19.00) | | |
| Posición | 0.00 m | | 0.45 m | |

Superficies principales

| | Em | | Uo | |
|---------------|--------|------------|------|-----------|
| M 1.7 (Techo) | 176 lx | (>= 30 lx) | 0.78 | (>= 0.10) |
| M 1.1 (Pared) | 176 lx | (>= 50 lx) | 0.80 | (>= 0.10) |
| M 1.2 (Pared) | 209 lx | (>= 50 lx) | 0.69 | (>= 0.10) |
| M 1.4 (Pared) | 148 lx | (>= 50 lx) | 0.44 | (>= 0.10) |
| M 1.5 (Pared) | 175 lx | (>= 50 lx) | 0.82 | (>= 0.10) |
| M 1.6 (Pared) | 196 lx | (>= 50 lx) | 0.69 | (>= 0.10) |

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022




2 Espacio 1

2.2 Resumen, Espacio 1

2.2.1 Resumen de los resultados, Superficie de evaluación 1

Tipo Cant. Producto

| | | |
|---|---|---|
| 3 | 6 | Relux Demo |
|  | | Nº de artículo : !0MJ2712L18830 |
| | | Nombre de la lum. : Access Ceiling Mounted Luminaire |
| | | Equipamiento : 1 x LED 3000K / CRI >= 80 12 W / 1000 lm |

2 Espacio 1

2.3 Resultados del cálculo, Espacio 1

2.3.1 Tabla, Suelo (E)

| | | | | | | |
|----|-----|-----|-----|--------------|-----|--------------|
| | 168 | 171 | 175 | 176 | 172 | (140) |
| | 170 | 174 | 178 | 180 | 174 | 167 |
| | 175 | 179 | 183 | 184 | 180 | 177 |
| | 184 | 187 | 191 | 191 | 188 | 185 |
| | 191 | 195 | 199 | 199 | 195 | 193 |
| 14 | 197 | 201 | 205 | 204 | 201 | 198 |
| | 201 | 205 | 209 | 208 | 205 | 202 |
| | 205 | 209 | 212 | 211 | 208 | 205 |
| | 208 | 211 | 215 | 215 | 212 | 209 |
| | 210 | 214 | 218 | 219 | 216 | 213 |
| | 213 | 217 | 222 | 222 | 219 | 216 |
| 12 | 216 | 221 | 225 | 226 | 224 | 220 |
| | 219 | 223 | 228 | 229 | 226 | 224 |
| | 221 | 226 | 230 | 231 | 228 | 225 |
| | 223 | 227 | 232 | 232 | 229 | 226 |
| | 223 | 227 | 231 | 232 | 230 | 227 |
| | 223 | 227 | 231 | 232 | 230 | 228 |
| 10 | 224 | 227 | 231 | [233] | 231 | 229 |
| | 223 | 227 | 231 | [233] | 230 | 228 |
| | 222 | 225 | 231 | 232 | 230 | 228 |
| | 220 | 224 | 230 | 231 | 229 | 226 |
| | 217 | 223 | 227 | 227 | 225 | 223 |
| | 214 | 219 | 223 | 223 | 221 | 216 |
| | 212 | 217 | 222 | 222 | 217 | 212 |
| 8 | 212 | 216 | 221 | 220 | 216 | 211 |
| | 214 | 217 | 220 | 220 | 218 | 214 |
| | 216 | 219 | 222 | 223 | 221 | 218 |
| | 217 | 221 | 225 | 226 | 224 | 222 |
| | 217 | 222 | 228 | 227 | 225 | 221 |
| | 218 | 222 | 229 | 229 | 226 | 222 |
| 6 | 218 | 223 | 227 | 230 | 227 | 224 |
| | 218 | 223 | 227 | 230 | 228 | 224 |
| | 218 | 223 | 228 | 229 | 227 | 224 |
| | 218 | 223 | 228 | 230 | 227 | 224 |
| | 218 | 222 | 228 | 230 | 227 | 224 |
| | 217 | 222 | 228 | 229 | 225 | 223 |
| 4 | 216 | 220 | 227 | 227 | 224 | 222 |
| | 213 | 217 | 222 | 223 | 221 | 217 |



Parte1

| | | |
|--------------------|-----------|-------------------|
| Iluminancia media | Em | : 212 lx |
| Iluminancia mínima | Emin | : 140 lx |
| Iluminancia máxima | Emax | : 233 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.52 (0.66) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.67 (0.60) |

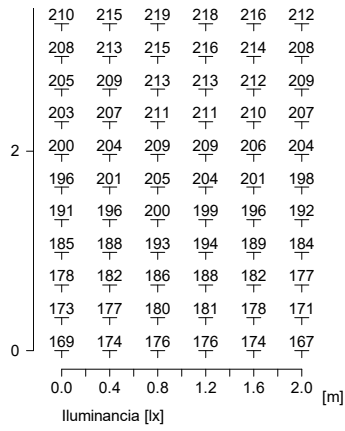
Objeto :
 Instalación :
 N° del proyecto : Ambiente A
 Fecha : 20.07.2022



2 Espacio 1

2.3 Resultados del cálculo, Espacio 1

2.3.1 Tabla, Suelo (E)



Parte2

2.3 Resultados del cálculo, Espacio 1

2.3.2 Tabla, Nivel útil 1.1 (E)

| | | | | | | |
|----|-------|-----|-----|-----|------------|-----|
| | (174) | 175 | 181 | 181 | 180 | 177 |
| | 178 | 185 | 189 | 190 | 189 | 183 |
| | 184 | 195 | 197 | 197 | 198 | 191 |
| | 193 | 202 | 204 | 205 | 206 | 199 |
| | 199 | 208 | 211 | 211 | 212 | 205 |
| 14 | 204 | 214 | 216 | 217 | 218 | 213 |
| | 208 | 218 | 220 | 220 | 221 | 217 |
| | 211 | 220 | 222 | 223 | 224 | 220 |
| | 214 | 223 | 225 | 226 | 228 | 223 |
| | 216 | 226 | 228 | 229 | 232 | 226 |
| | 219 | 229 | 232 | 234 | 236 | 221 |
| 12 | 223 | 233 | 236 | 238 | 239 | 233 |
| | 226 | 236 | 239 | 240 | 243 | 236 |
| | 228 | 238 | 240 | 242 | 243 | 237 |
| | 228 | 238 | 241 | 242 | 242 | 237 |
| | 228 | 238 | 240 | 242 | 244 | 237 |
| | 228 | 238 | 240 | 243 | 244 | 238 |
| 10 | 228 | 238 | 241 | 243 | 242 | 239 |
| | 229 | 239 | 241 | 243 | 245 | 239 |
| | 228 | 238 | 241 | 242 | 244 | 238 |
| | 227 | 236 | 239 | 240 | 240 | 236 |
| | 224 | 233 | 235 | 236 | 238 | 232 |
| | 221 | 230 | 231 | 232 | 234 | 228 |
| 8 | 218 | 227 | 229 | 229 | 230 | 224 |
| | 217 | 226 | 228 | 228 | 230 | 225 |
| | 219 | 227 | 229 | 230 | 231 | 226 |
| | 221 | 230 | 232 | 233 | 234 | 228 |
| | 224 | 233 | 235 | 236 | 237 | 232 |
| | 226 | 235 | 237 | 239 | 240 | 233 |
| | 226 | 236 | 238 | 239 | 240 | 232 |
| 6 | 225 | 235 | 237 | 239 | 240 | 233 |
| | 224 | 234 | 237 | 239 | 237 | 234 |
| | 224 | 234 | 237 | 238 | 238 | 231 |
| | 224 | 234 | 237 | 239 | 239 | 232 |
| | 225 | 235 | 237 | 239 | 240 | 234 |
| | 225 | 235 | 237 | 238 | 239 | 233 |
| 4 | 224 | 233 | 235 | 236 | 237 | 231 |
| | 221 | 230 | 232 | 233 | 233 | 229 |
| | 218 | 226 | 228 | 229 | 229 | 224 |

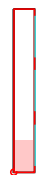
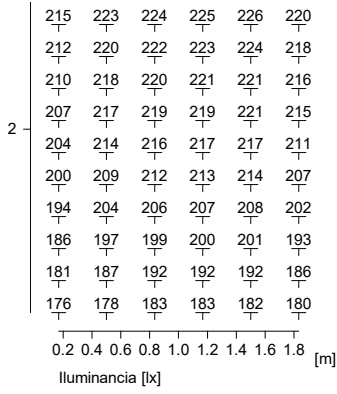


Parte1

| | | |
|--------------------------------|-----------|-------------------|
| Altura del nivel de referencia | : | 0.00 m |
| Iluminancia media | Em | : 223 lx |
| Iluminancia mínima | Emin | : 174 lx |
| Iluminancia máxima | Emax | : 245 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.28 (0.78) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.41 (0.71) |

2.3 Resultados del cálculo, Espacio 1

2.3.2 Tabla, Nivel útil 1.1 (E)



Parte2

2.3 Resultados del cálculo, Espacio 1

2.3.3 Tabla, Suelo (L)

| | | | | | | |
|-----|------|------|------|---------------|------|---------------|
| | 50.7 | 51.6 | 52.8 | 53.3 | 52.1 | (42.3) |
| | 51.4 | 52.5 | 53.8 | 54.5 | 52.5 | 50.4 |
| | 53 | 54.2 | 55.5 | 55.6 | 54.4 | 53.5 |
| | 55.5 | 56.7 | 57.9 | 57.8 | 56.7 | 55.9 |
| | 57.7 | 58.9 | 60 | 60 | 59.1 | 58.3 |
| [m] | 59.5 | 60.7 | 61.8 | 61.8 | 60.9 | 60 |
| 14 | 60.9 | 62 | 63.1 | 62.9 | 62 | 61.1 |
| | 61.9 | 63.2 | 64.1 | 64 | 63 | 62.1 |
| | 62.8 | 63.8 | 64.9 | 65.1 | 64.2 | 63.1 |
| | 63.6 | 64.6 | 65.9 | 66.3 | 65.2 | 64.3 |
| | 64.4 | 65.6 | 67.1 | 67.3 | 66.4 | 65.5 |
| | 65.2 | 66.7 | 68.1 | 68.4 | 67.7 | 66.6 |
| 12 | 66.2 | 67.6 | 68.8 | 69.4 | 68.5 | 67.7 |
| | 66.9 | 68.3 | 69.7 | 69.8 | 69 | 67.9 |
| | 67.3 | 68.7 | 70.2 | 70.2 | 69.2 | 68.2 |
| | 67.4 | 68.7 | 69.9 | 70.1 | 69.4 | 68.6 |
| | 67.5 | 68.5 | 69.7 | 70.1 | 69.5 | 69 |
| | 67.6 | 68.7 | 69.9 | 70.3 | 69.7 | 69.1 |
| 10 | 67.5 | 68.6 | 69.8 | [70.5] | 69.6 | 68.9 |
| | 67 | 68.2 | 69.8 | 70.3 | 69.7 | 68.9 |
| | 66.4 | 67.8 | 69.5 | 69.8 | 69.2 | 68.4 |
| | 65.6 | 67.3 | 68.5 | 68.7 | 68.1 | 67.4 |
| | 64.8 | 66.1 | 67.4 | 67.5 | 66.9 | 65.3 |
| | 64.1 | 65.5 | 67.1 | 67 | 65.7 | 64.1 |
| 8 | 64.1 | 65.3 | 66.7 | 66.5 | 65.4 | 63.7 |
| | 64.6 | 65.6 | 66.6 | 66.5 | 65.9 | 64.8 |
| | 65.3 | 66.3 | 67.3 | 67.5 | 66.7 | 66 |
| | 65.5 | 66.8 | 68.1 | 68.4 | 67.8 | 67.2 |
| | 65.8 | 67 | 68.9 | 68.8 | 68.1 | 67 |
| | 65.9 | 67.2 | 69.1 | 69.3 | 68.3 | 67.1 |
| 6 | 65.8 | 67.3 | 68.8 | 69.4 | 68.6 | 67.7 |
| | 65.9 | 67.5 | 68.7 | 69.4 | 68.8 | 67.7 |
| | 65.9 | 67.4 | 68.8 | 69.1 | 68.6 | 67.6 |
| | 66 | 67.3 | 69 | 69.5 | 68.7 | 67.6 |
| | 65.9 | 67.2 | 69.1 | 69.4 | 68.6 | 67.7 |
| | 65.6 | 67.1 | 69 | 69.2 | 68.2 | 67.6 |
| 4 | 65.2 | 66.5 | 68.5 | 68.7 | 67.6 | 67.1 |
| | 64.5 | 65.7 | 67.2 | 67.4 | 66.8 | 65.5 |

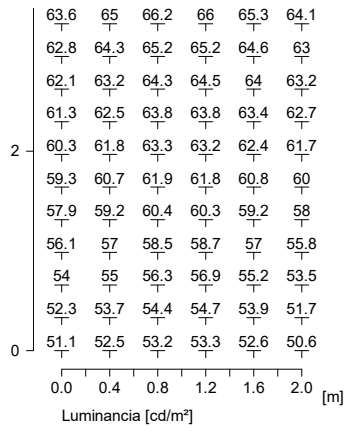


Parte1

| | | |
|-------------------|----|--------------------------|
| Luminancia media | Lm | : 64 cd/m ² |
| Luminancia mínima | Lm | : 42.3 cd/m ² |
| Luminancia máxima | Lm | : 70.5 cd/m ² |

2.3 Resultados del cálculo, Espacio 1

2.3.3 Tabla, Suelo (L)



Parte2

2.3 Resultados del cálculo, Espacio 1

2.3.4 Tabla, Nivel útil 1.1 (Ec)

| | | | | | | |
|----|-------|-----|-----|-----|--------------|-----|
| | (143) | 153 | 156 | 156 | 157 | 147 |
| | 156 | 169 | 171 | 173 | 172 | 164 |
| | 165 | 173 | 174 | 175 | 177 | 167 |
| | 169 | 177 | 178 | 179 | 180 | 173 |
| | 173 | 180 | 179 | 180 | 182 | 179 |
| 14 | 174 | 182 | 179 | 181 | 185 | 181 |
| | 178 | 185 | 186 | 187 | 189 | 187 |
| | 180 | 190 | 191 | 192 | 194 | 191 |
| | 184 | 194 | 194 | 196 | 199 | 191 |
| | 188 | 196 | 199 | 201 | 201 | 195 |
| | 189 | 198 | 200 | 199 | 204 | 202 |
| 12 | 191 | 200 | 200 | 201 | 205 | 200 |
| | 195 | 201 | 201 | 201 | 206 | 202 |
| | 194 | 205 | 204 | 205 | 208 | 202 |
| | 197 | 207 | 207 | 209 | 210 | 198 |
| | 199 | 208 | 208 | 209 | 211 | 201 |
| | 199 | 209 | 211 | 212 | [213] | 202 |
| | 199 | 206 | 208 | 208 | 212 | 201 |
| 10 | 197 | 206 | 207 | 209 | 211 | 204 |
| | 194 | 203 | 204 | 205 | 209 | 204 |
| | 194 | 202 | 200 | 204 | 208 | 202 |
| | 194 | 203 | 200 | 203 | 207 | 201 |
| | 193 | 202 | 204 | 204 | 207 | 196 |
| | 192 | 202 | 202 | 205 | 206 | 198 |
| 8 | 192 | 203 | 203 | 206 | 204 | 196 |
| | 191 | 202 | 204 | 204 | 206 | 194 |
| | 191 | 200 | 201 | 204 | 205 | 198 |
| | 192 | 201 | 198 | 202 | 204 | 195 |
| | 191 | 200 | 200 | 201 | 204 | 196 |
| | 194 | 202 | 203 | 205 | 207 | 199 |
| 6 | 195 | 204 | 205 | 207 | 205 | 199 |
| | 194 | 205 | 207 | 210 | 210 | 197 |
| | 195 | 204 | 208 | 210 | 211 | 199 |
| | 196 | 206 | 208 | 208 | 210 | 200 |
| | 196 | 205 | 204 | 207 | 208 | 197 |
| | 195 | 200 | 202 | 202 | 206 | 198 |
| 4 | 191 | 200 | 199 | 199 | 200 | 196 |
| | 190 | 198 | 198 | 198 | 201 | 191 |
| | 188 | 196 | 199 | 198 | 200 | 194 |



Parte1

Iluminancia cilíndrica

Altura del nivel de referencia

: 0.45 m

Iluminancia media

Em : 193 lx

Iluminancia mínima

Emin : 143 lx

Iluminancia máxima

Emax : 213 lx:

Uniformidad Uo

Emin/Em : 1 : 1.35 (0.74)

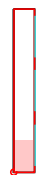
Uniformidad Ud

Emin/Emax : 1 : 1.49 (0.67)

2.3 Resultados del cálculo, Espacio 1

2.3.4 Tabla, Nivel útil 1.1 (Ec)

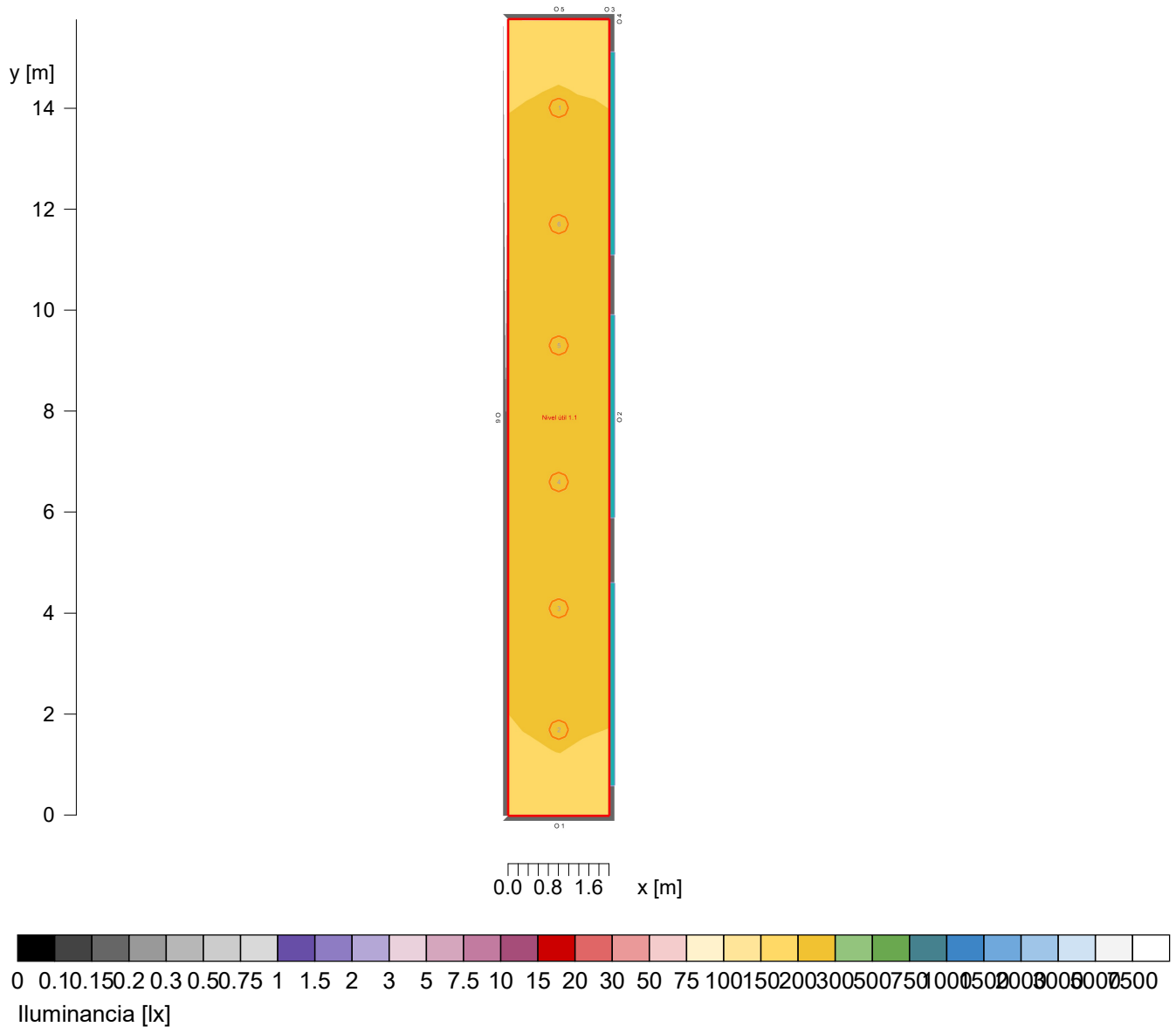
| | | | | | | | | | | |
|---|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2 | 184 | 195 | 196 | 198 | 199 | 194 | | | | |
| | 183 | 191 | 194 | 196 | 197 | 190 | | | | |
| | 183 | 190 | 189 | 191 | 194 | 189 | | | | |
| | 178 | 186 | 186 | 185 | 190 | 182 | | | | |
| | 175 | 183 | 180 | 181 | 186 | 178 | | | | |
| | 174 | 179 | 179 | 179 | 182 | 174 | | | | |
| | 171 | 179 | 178 | 179 | 181 | 175 | | | | |
| | 168 | 176 | 178 | 178 | 178 | 171 | | | | |
| | 161 | 172 | 175 | 175 | 172 | 165 | | | | |
| | (143) | 158 | 160 | 160 | 161 | 148 | | | | |
| | | 0.2 | 0.4 | 0.6 | 0.8 | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 |
| | | [m] | | | | | | | | |



Parte2

2.3 Resultados del cálculo, Espacio 1

2.3.5 Colores falsos, Suelo (E)

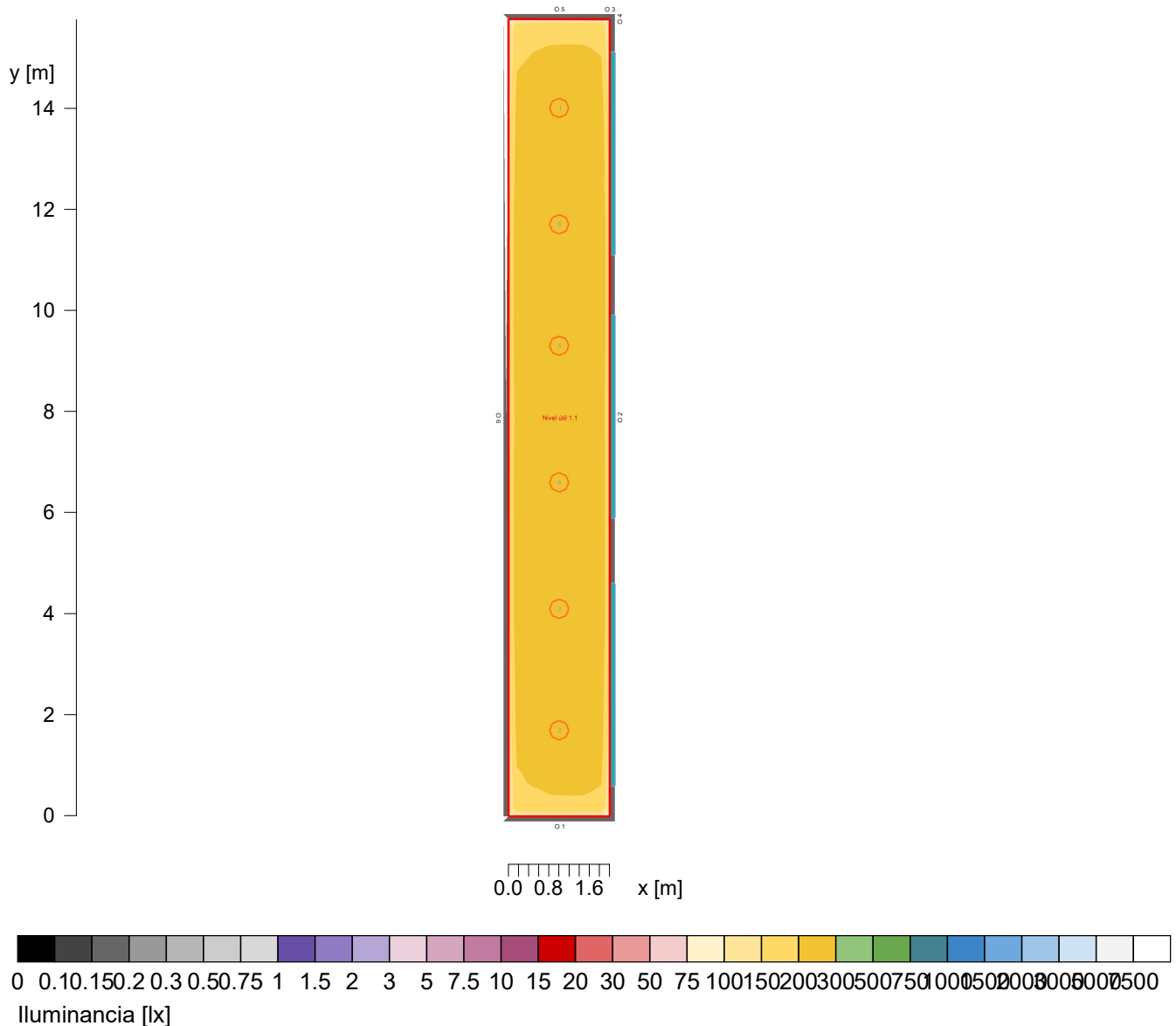


Iluminancia media
 Iluminancia mínima
 Iluminancia máxima
 Uniformidad U₀
 Uniformidad U_d

Em : 212 lx
 Emin : 140 lx
 Emax : 233 lx:
 Emin/Em : 1 : 1.52 (0.66)
 Emin/Emax : 1 : 1.67 (0.60)

2.3 Resultados del cálculo, Espacio 1

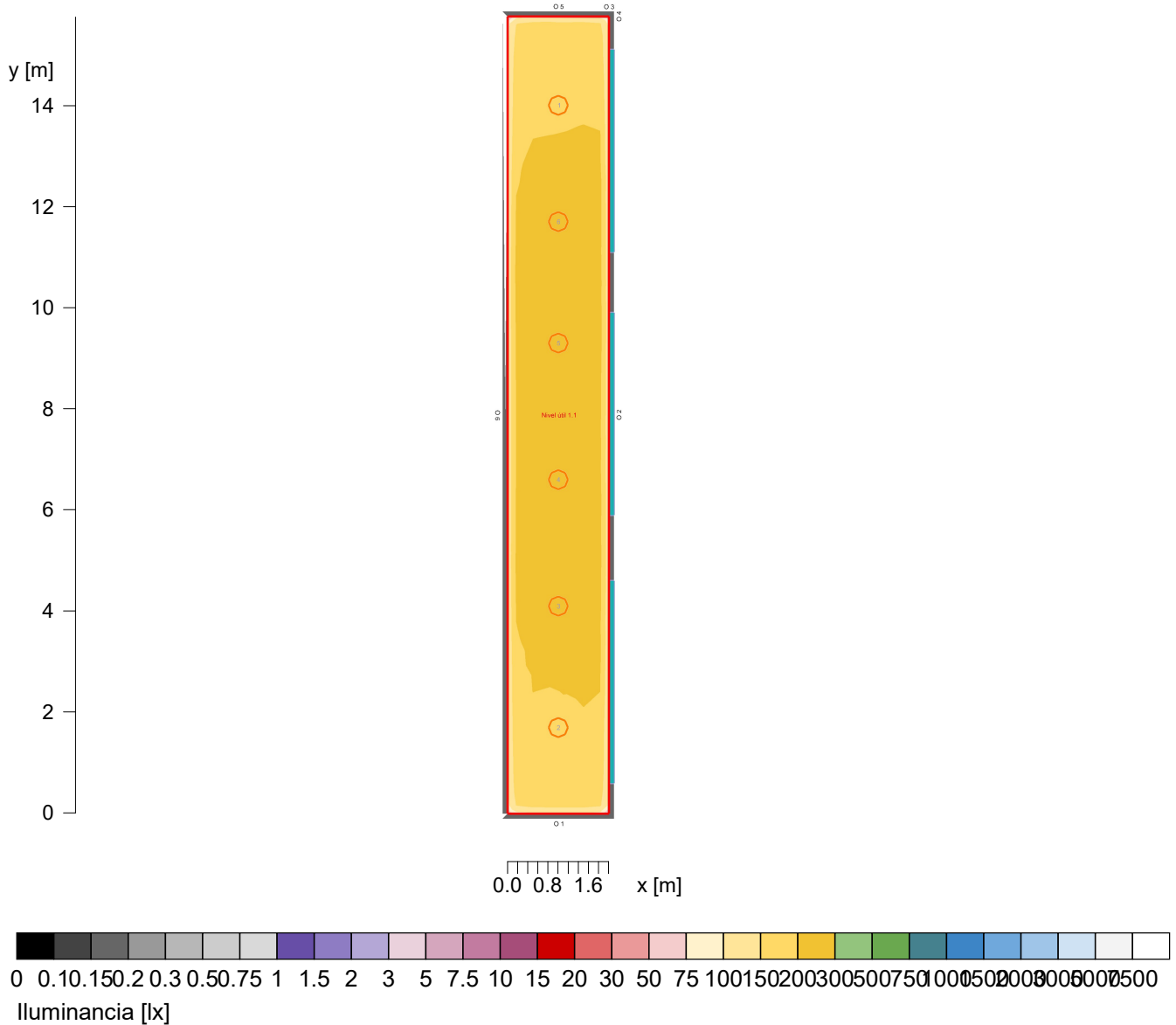
2.3.6 Colores falsos, Nivel útil 1.1 (E)



| | | |
|--------------------------------|-----------|-------------------|
| Altura del nivel de referencia | : | 0.00 m |
| Iluminancia media | Em | : 223 lx |
| Iluminancia mínima | Emin | : 174 lx |
| Iluminancia máxima | Emax | : 245 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.28 (0.78) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.41 (0.71) |

2.3 Resultados del cálculo, Espacio 1

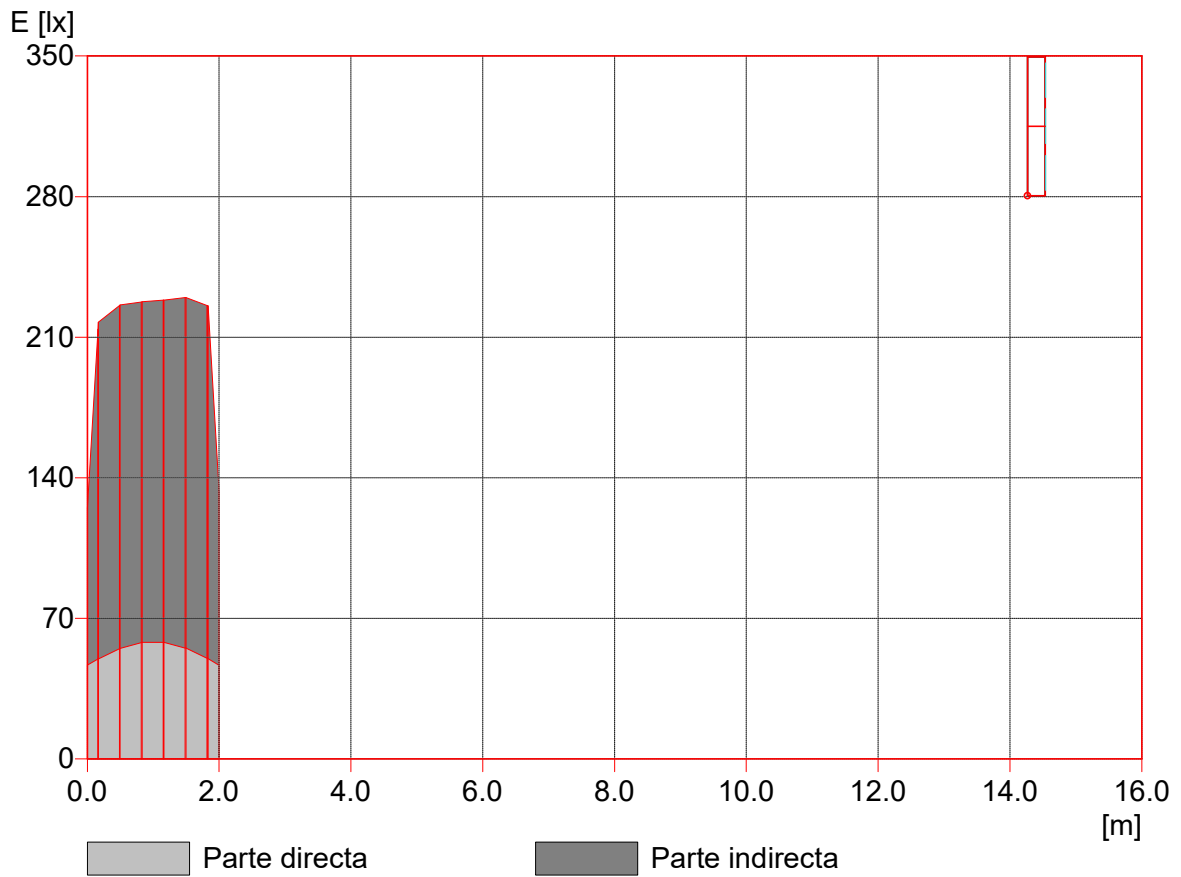
2.3.7 Colores falsos, Nivel útil 1.1 (Ec)



| | | |
|--------------------------------|-----------|-------------------|
| Iluminancia cilíndrica | | |
| Altura del nivel de referencia | | : 0.45 m |
| Iluminancia media | Em | : 193 lx |
| Iluminancia mínima | Emin | : 143 lx |
| Iluminancia máxima | Emax | : 213 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.35 (0.74) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.49 (0.67) |

2.3 Resultados del cálculo, Espacio 1

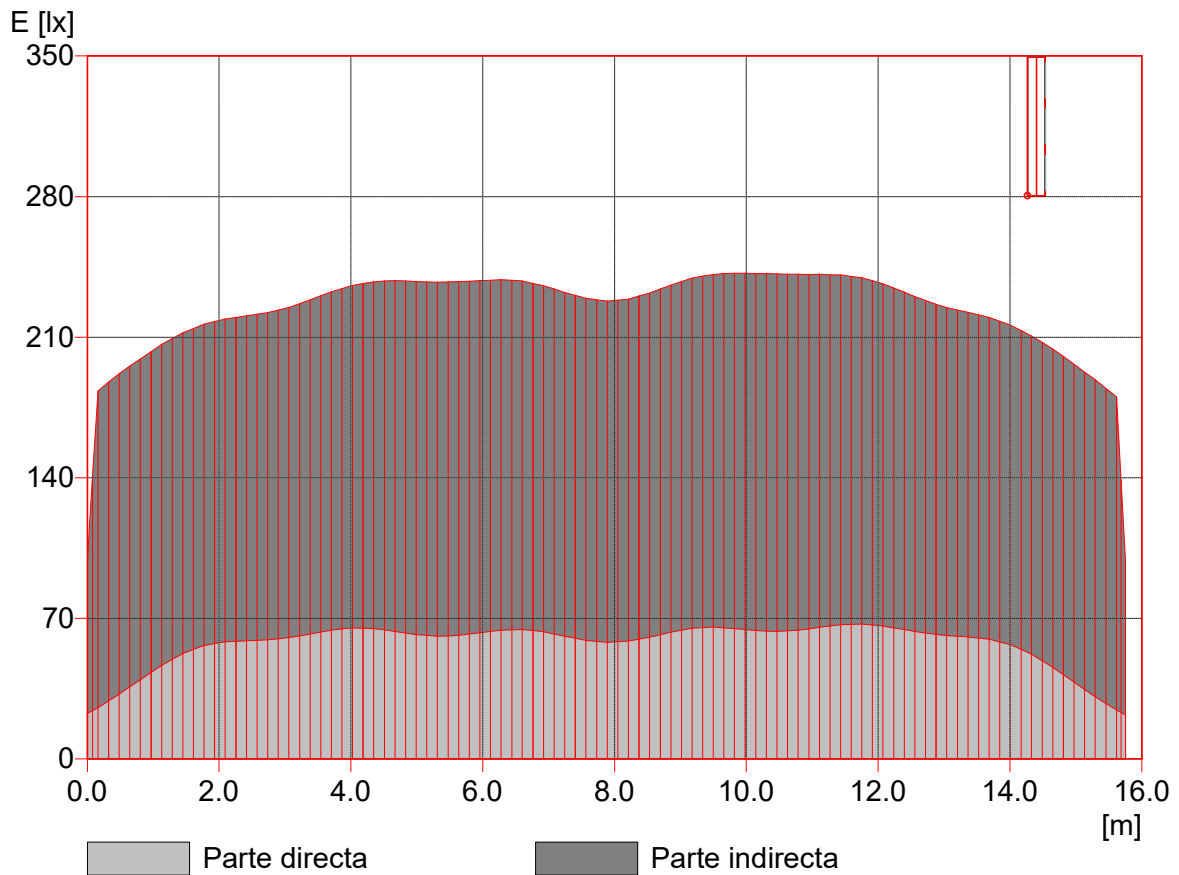
2.3.8 Sección longitudinal, Nivel útil 1.1 (E)



Sección longitudinal en y = 7.88 m

2.3 Resultados del cálculo, Espacio 1

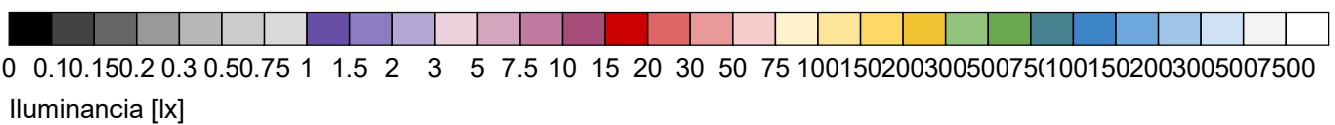
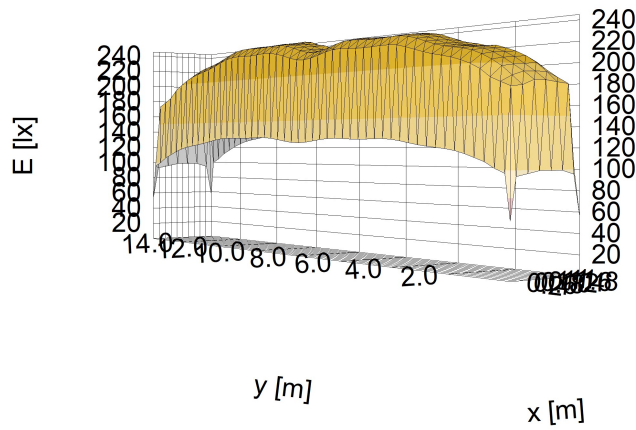
2.3.9 Sección transversal, Nivel útil 1.1 (E)



Sección transversal en $x = 1.00$ m

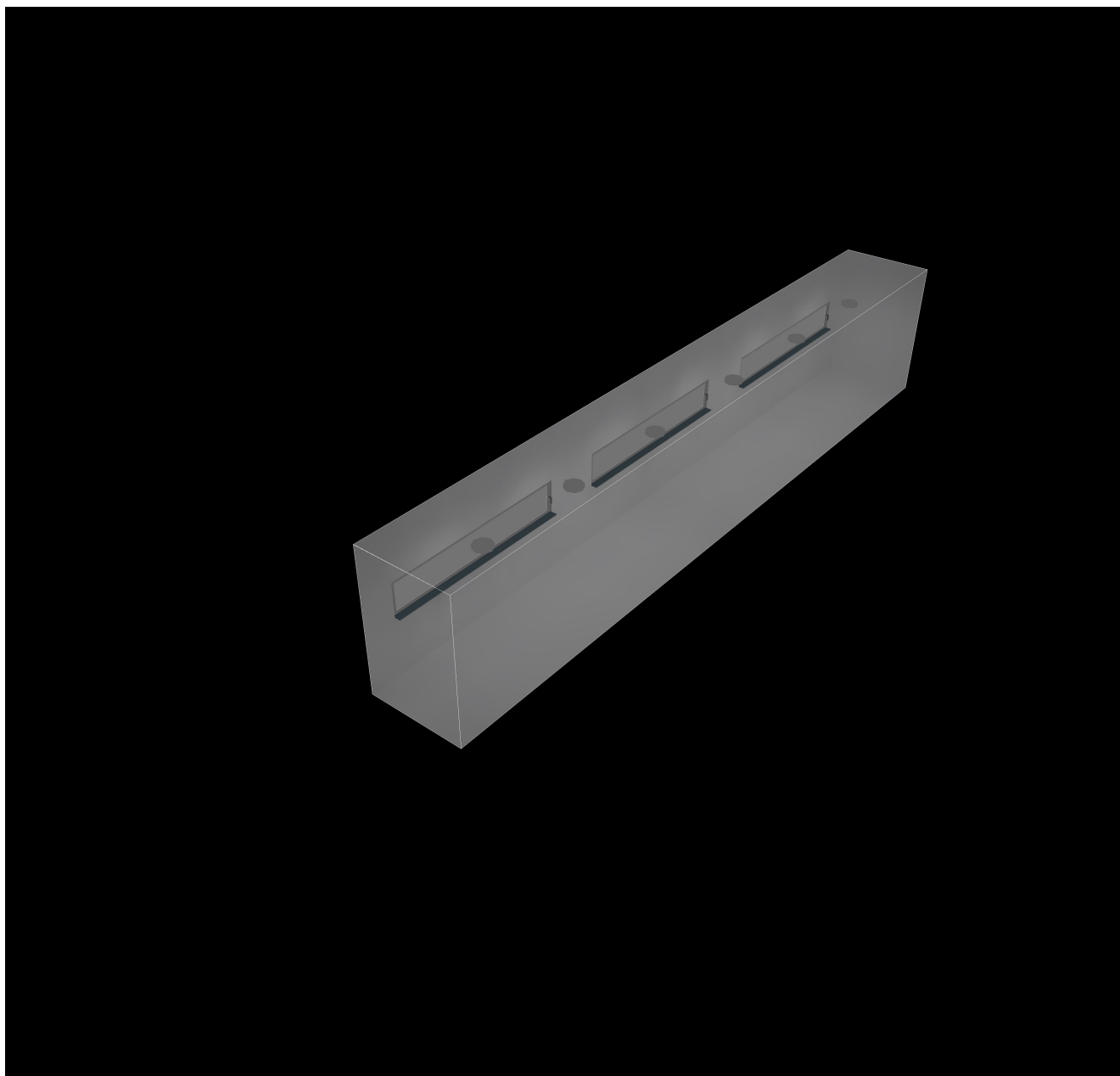
2.3 Resultados del cálculo, Espacio 1

2.3.10 Relieve 3D, Nivel útil 1.1 (E)



2.3 Resultados del cálculo, Espacio 1

2.3.11 Luminancia-3D, Vista 1



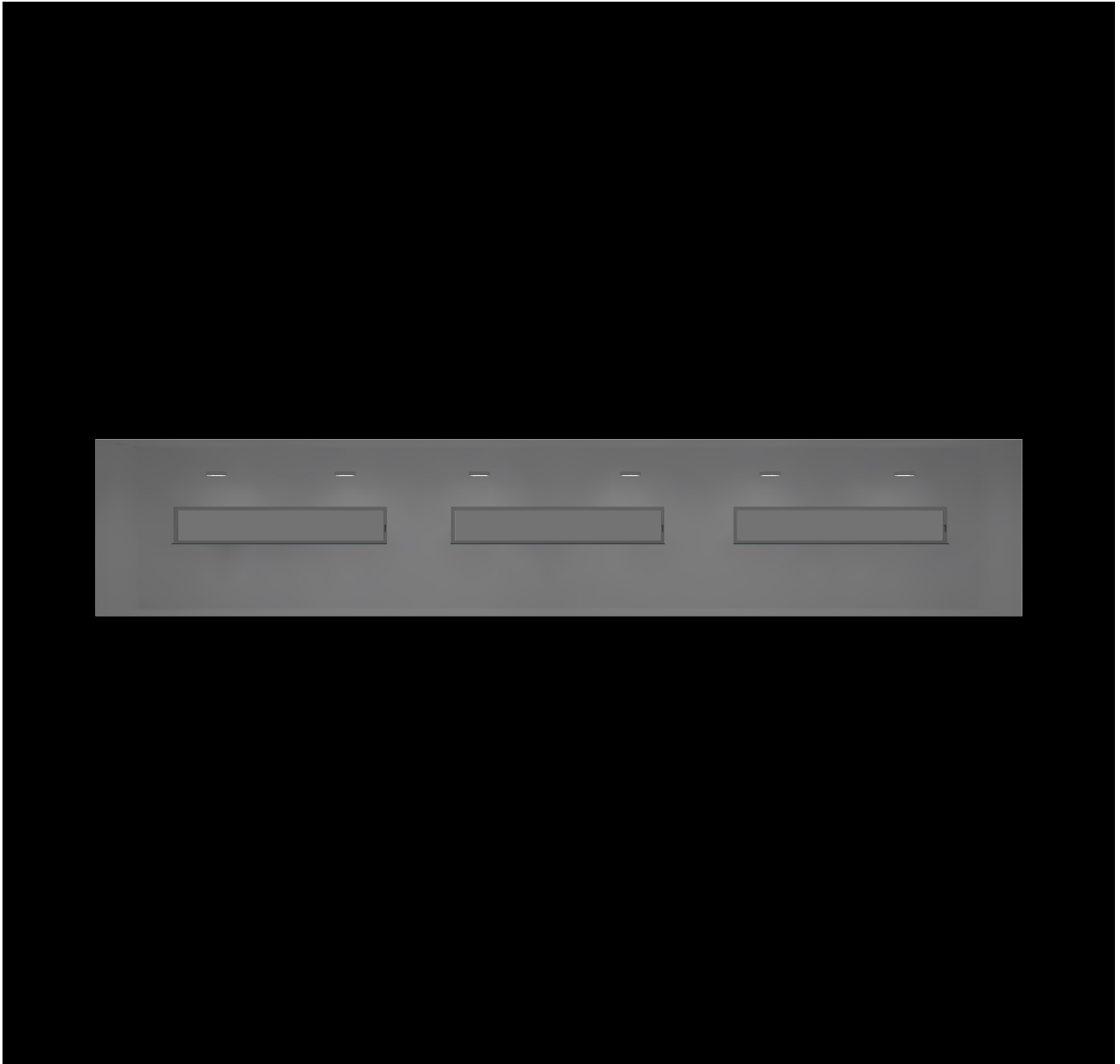
2.3 Resultados del cálculo, Espacio 1

2.3.12 Luminancia-3D, Vista desde detrás



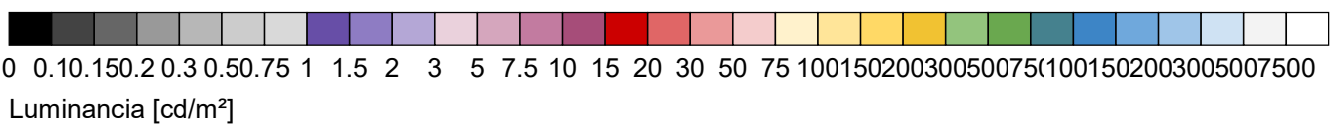
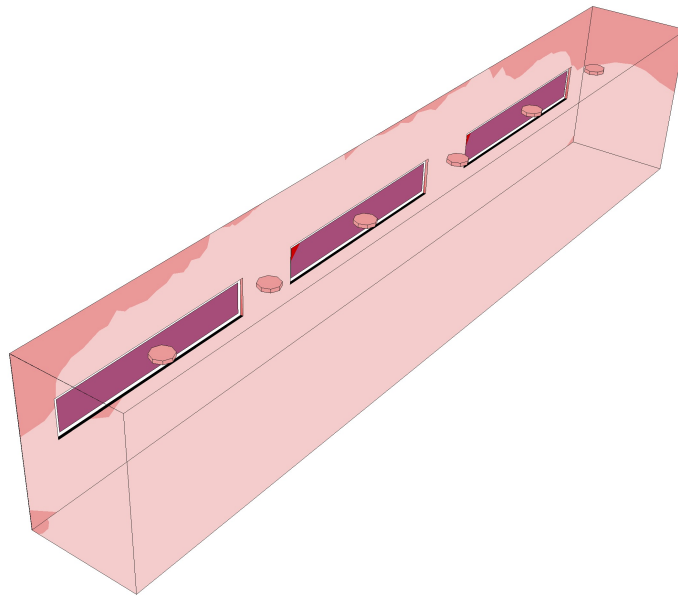
2.3 Resultados del cálculo, Espacio 1

2.3.13 Luminancia-3D, Vista desde la izquierda



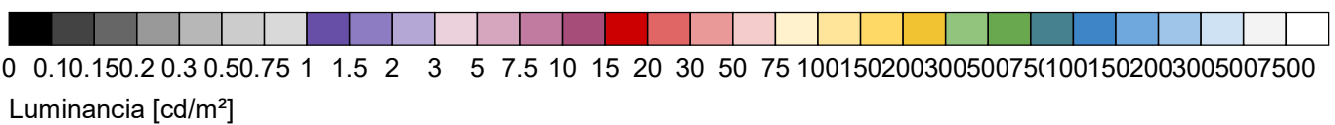
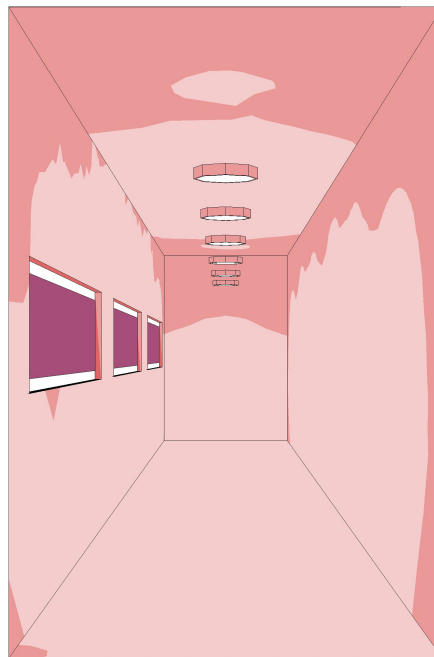
2.3 Resultados del cálculo, Espacio 1

2.3.14 Colores falsos-3D, Vista 1 (L)



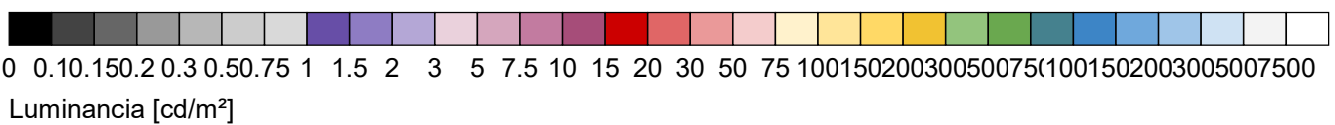
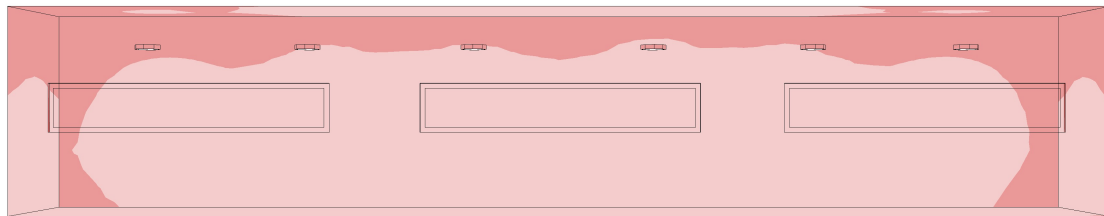
2.3 Resultados del cálculo, Espacio 1

2.3.15 Colores falsos-3D, Vista desde detrás (L)



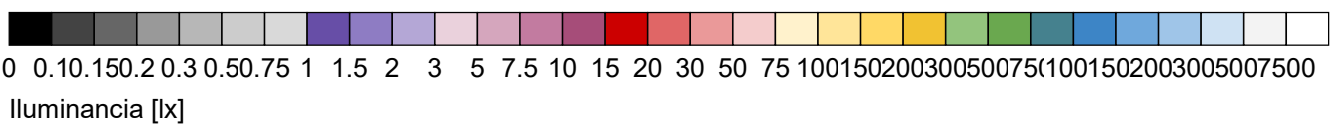
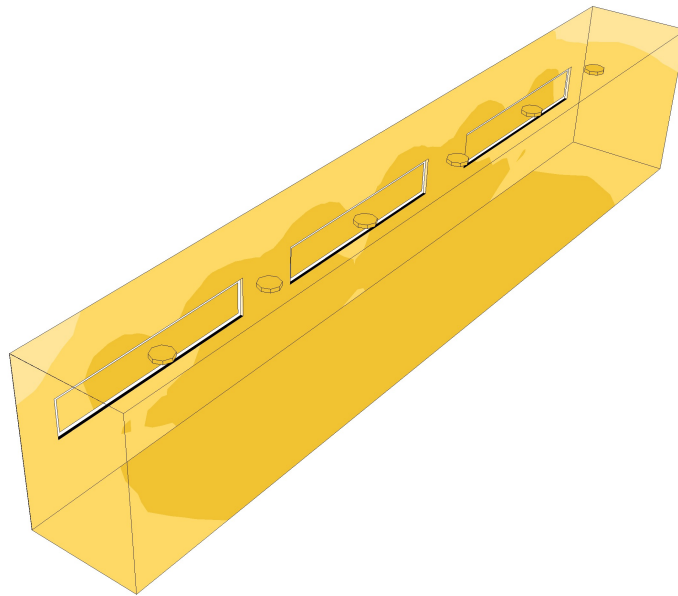
2.3 Resultados del cálculo, Espacio 1

2.3.16 Colores falsos-3D, Vista desde la derecha (L)



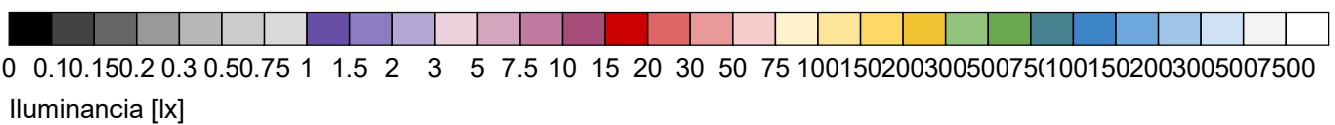
2.3 Resultados del cálculo, Espacio 1

2.3.17 Colores falsos-3D, Vista 1 (E)



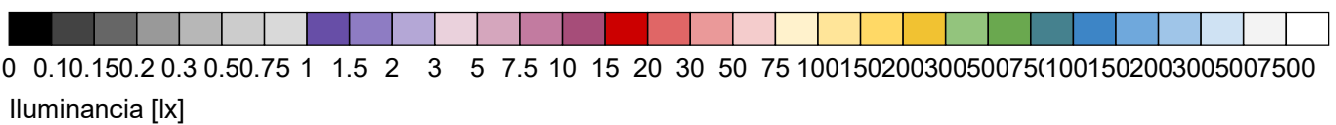
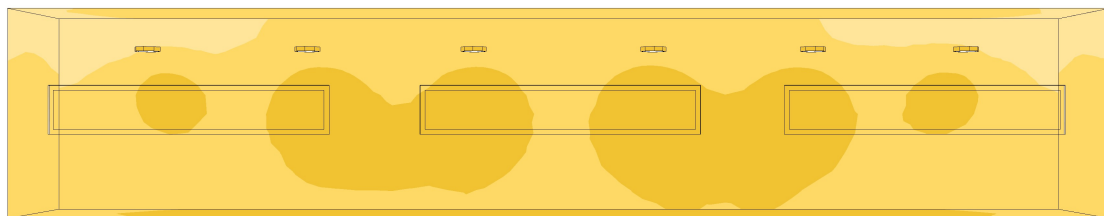
2.3 Resultados del cálculo, Espacio 1

2.3.18 Colores falsos-3D, Vista desde detrás (E)



2.3 Resultados del cálculo, Espacio 1

2.3.19 Colores falsos-3D, Vista desde la derecha (E)



Instalación :

Nº del proyecto : Ambiente A
Cliente : Leonardo Garcia
Responsable :
Fecha : 20.07.2022

Los siguientes valores se basan en los cálculos exactos en lámparas, luminarias calibradas y en su disposición nominal. En la práctica pueden producirse variaciones graduales. Quedan excluidos los derechos de garantía para los datos de luminarias. El fabricante no se responsabiliza de los daños subsiguientes o daños originados al usuario o a terceros.

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022

RELUX®

1 Datos de luminarias

1.1 Relux Demo, Interior Ceiling Recessed Lu... (!5MQ128DL3Y)

1.1.1 Hoja de datos

Fabricante: Relux Demo

RELUX®

!5MQ128DL3Y Linear luminaire-ceiling recessed Interior Ceiling Recessed Luminaire

Quadrature® 2 LED, linear luminaire, primary anti-glare with ELDAICON®, of PMMA, primary optical cover: prismatic diffuser, of PMMA, CAT 2 ($L \leq 3000 \text{cd/m}^2$), light emission: direct distribution, primary light characteristic: symmetric, installation type: recessed, LED, luminous flux: 3.780 lm, luminous efficacy: 61lm/W, light colour: 830, colour temperature: 3000K, control gear: ECG DALI, with Linect® plug connection system or terminal, 5-pole, max. 2.5mm², mains connection: 230V, AC, 50Hz, connected load: 62W, luminaire housing, of sheet steel, coated, metallic grey (RAL 9006), module: M600, length: 597 mm, width: 597 mm, housing frame, of extruded aluminium section, luminaire housing, rectangular, of aluminium section, anodised, natural, protection rating (complete): IP20, insulation class (complete): insulation class I (protective earthing), certification: CE, protection symbol: F, permissible ambient temperature for indoor applications: $\leq +25^\circ\text{C}$, standard: EN 50419, packaging unit: 1 piece

factory setting: luminousflux part=100% (linear dimming level=254)

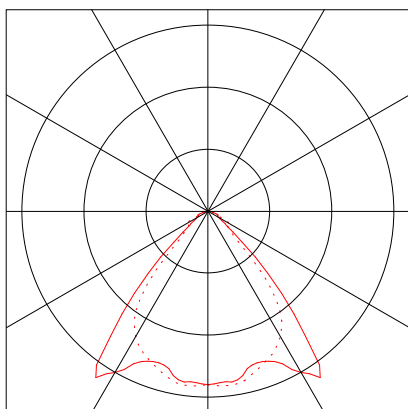
Datos de luminarias

Fotometría absoluta
Eficacia de luminaria : 40 lm/W
Clasificación : A50 ↓100.0% ↑0.0%
CIE Flux Codes : 74 94 99 100 100
UGR 4H 8H : 11.4 / <10.0
Potencia : 20 W
Flujo luminoso : 800 lm

Equipamiento con

Cantidad : 1
Designación : LED 3000K /
CRI ≥ 80
Color : 3000K
Reproducción cromática 80

Dimensiones : 597 mm x 597 mm x 0.0 mm



Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022

RELUX®

1 Datos de luminarias

1.2 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.2.1 Hoja de datos

Fabricante: Relux Demo

RELUX®

!0MJ2712L18830 Wall and ceiling luminaire-ceiling mounted Access Ceiling Mounted Luminaire

POSIVO® LED flat, wall and ceiling luminaire

primary optical cover: enclosure, of PMMA

light emission: direct distribution

installation type: surface-mounted

LED, luminous flux: 1.600 lm

luminous efficacy: 76lm/W

light colour: 830

colour temperature: 3000K

control gear: ECG, with terminal, 3-pole

mains connection: 220..240V

connected load: 21W, housing, round, of sheet steel, white

diameter: 380 mm

height: 65mm

ring, of aluminium, silver

protection rating (complete): IP40

insulation class (complete): insulation class I (protective earthing)

certification: CE

impact resistance: IK03

Datos de luminarias

Fotometría absoluta

Eficacia de luminaria : 75 lm/W

Clasificación : A42 ↓96.1% ↑3.9%

CIE Flux Codes : 46 77 94 96 100

UGR 4H 8H : 18.3 / 18.3

Potencia : 8 W

Flujo luminoso : 600 lm

Equipamiento con

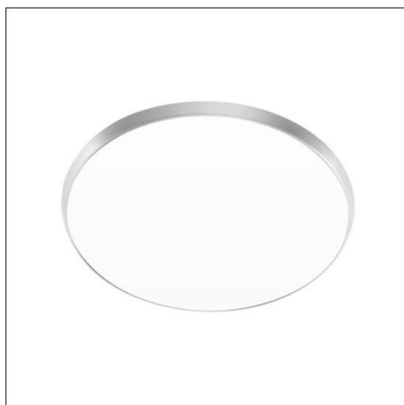
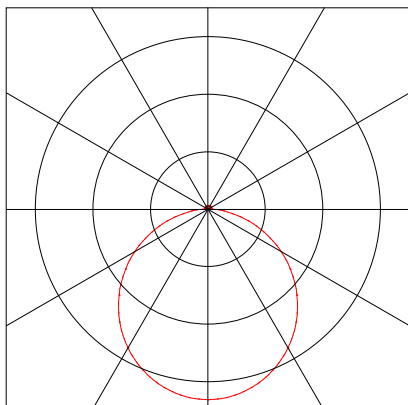
Cantidad : 1

Designación : LED 3000K /
CRI >= 80

Color : 3000K

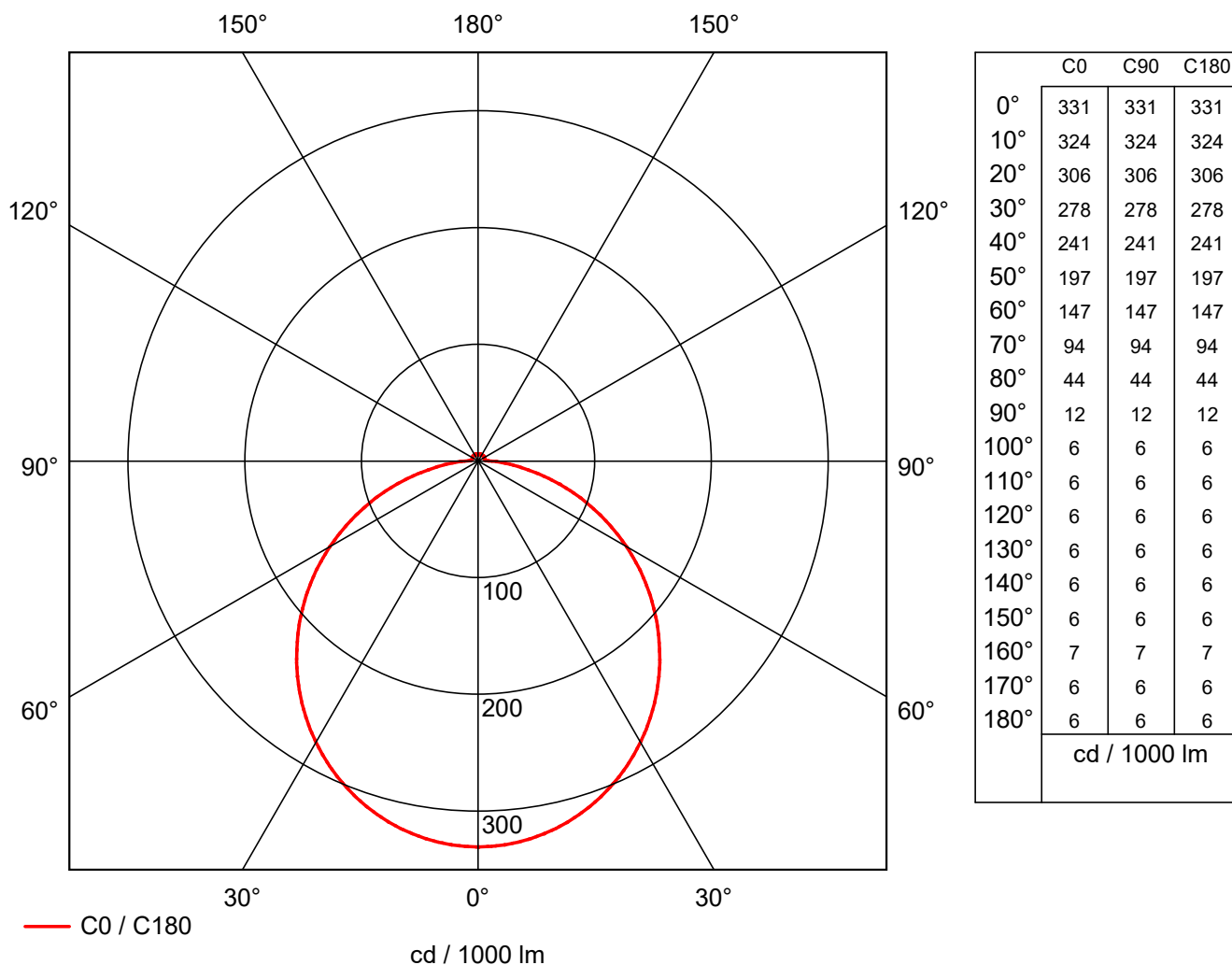
Reproducción cromática 80

Dimensiones : Ø380 mm x 65 mm



1.2 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.2.2 CDL



Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 600
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx3444098156.ldt

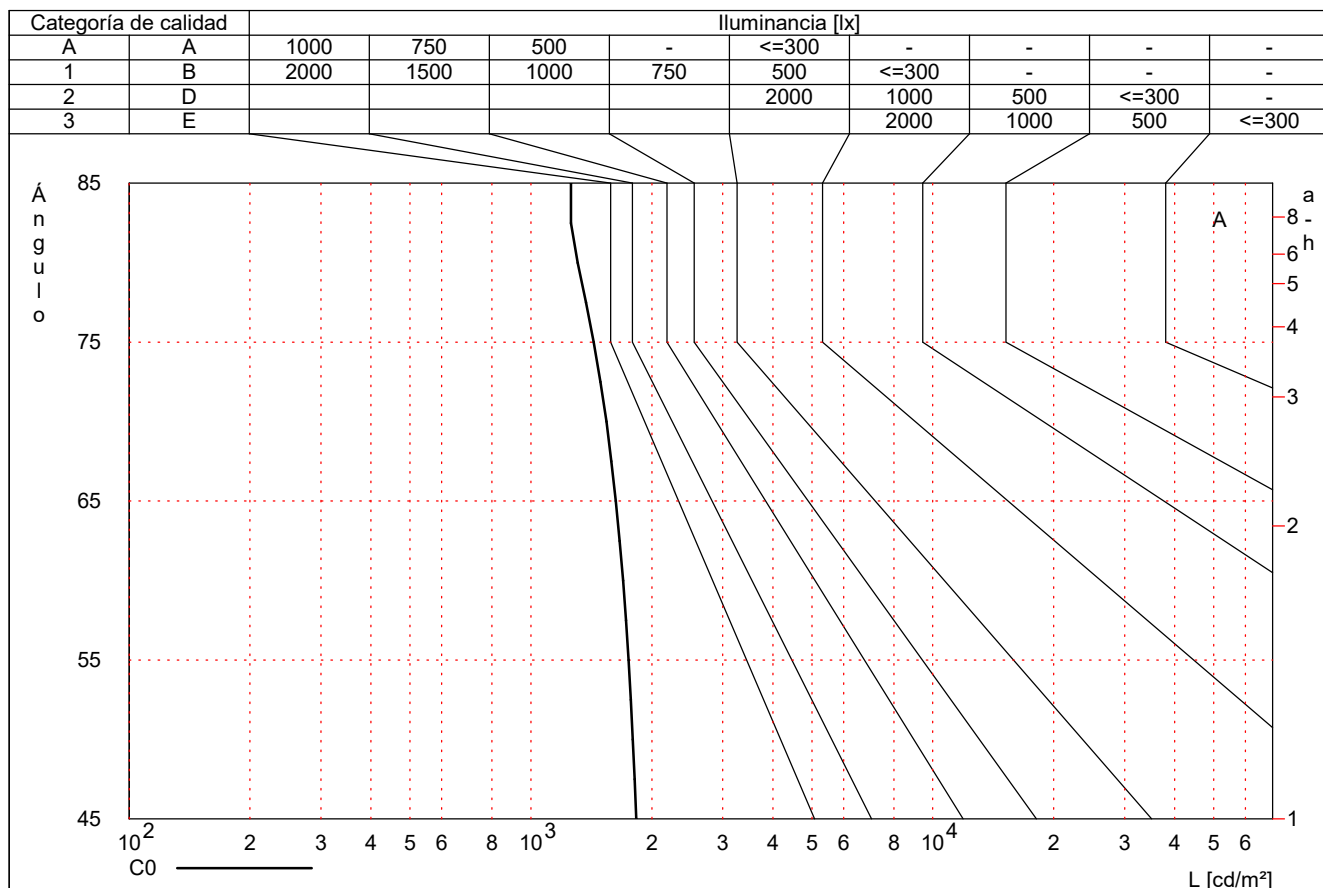
Eficacia de luminaria : 75 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

Objeto :
 Instalación :
 N° del proyecto : Ambiente A
 Fecha : 20.07.2022



1.2 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.2.3 Diagrama Söllner



Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 600
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx3444098156.ldt

Eficacia de luminaria : 75 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.2 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.2.4 Tabla de luminancia

| | C0 | C15 | C30 | C45 | C60 | C75 | C90 | C105 | C120 | C135 | C150 | C165 |
|-----|------|------|------|------|--------|--------|------|------|------|------|--------|--------|
| 65° | 1627 | 1627 | 1627 | 1627 | [1627] | [1627] | 1627 | 1627 | 1627 | 1627 | [1627] | [1627] |
| 70° | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 |
| 75° | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 |
| 80° | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 |
| 85° | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 |

| | C180 | C195 | C210 | C225 | C240 | C255 | C270 | C285 | C300 | C315 | C330 | C345 |
|-----|------|------|------|------|--------|--------|------|------|------|------|--------|--------|
| 65° | 1627 | 1627 | 1627 | 1627 | [1627] | [1627] | 1627 | 1627 | 1627 | 1627 | [1627] | [1627] |
| 70° | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 | 1542 |
| 75° | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 | 1432 |
| 80° | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 |
| 85° | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 | 1257 |

Luminancia [cd/m²]

Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 600
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx3444098156.ldt

Eficacia de luminaria : 75 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.2 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.2.5 Valoración del deslumbramiento según UGR

Grados de reflexión

| | | | | | | | | | | |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Techo | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Paredes | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Suelo | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

Dimensiones del espacio

| x | | Vista en dirección C0 | | | | | Vista en dirección C90 | | | | |
|-----|-----|-----------------------|------|------|------|------|------------------------|------|------|------|------|
| | y | | | | | | | | | | |
| 2H | 2H | 14.0 | 15.6 | 14.5 | 16.0 | 16.4 | 14.0 | 15.6 | 14.5 | 16.0 | 16.4 |
| | 3H | 15.7 | 17.1 | 16.1 | 17.5 | 17.9 | 15.7 | 17.1 | 16.1 | 17.5 | 17.9 |
| | 4H | 16.3 | 17.7 | 16.8 | 18.1 | 18.6 | 16.3 | 17.7 | 16.8 | 18.1 | 18.6 |
| | 6H | 16.9 | 18.1 | 17.3 | 18.6 | 19.1 | 16.9 | 18.1 | 17.3 | 18.6 | 19.1 |
| | 8H | 17.0 | 18.2 | 17.5 | 18.7 | 19.2 | 17.0 | 18.2 | 17.5 | 18.7 | 19.2 |
| | 12H | 17.2 | 18.3 | 17.7 | 18.8 | 19.3 | 17.2 | 18.3 | 17.7 | 18.8 | 19.3 |
| 4H | 2H | 14.8 | 16.1 | 15.2 | 16.6 | 17.0 | 14.8 | 16.1 | 15.2 | 16.6 | 17.0 |
| | 3H | 16.6 | 17.7 | 17.0 | 18.2 | 18.7 | 16.6 | 17.7 | 17.0 | 18.2 | 18.7 |
| | 4H | 17.4 | 18.4 | 17.9 | 18.9 | 19.4 | 17.4 | 18.4 | 17.9 | 18.9 | 19.4 |
| | 6H | 18.0 | 18.9 | 18.5 | 19.5 | 20.0 | 18.0 | 18.9 | 18.5 | 19.5 | 20.0 |
| | 8H | 18.3 | 19.1 | 18.8 | 19.6 | 20.2 | 18.3 | 19.1 | 18.8 | 19.6 | 20.2 |
| | 12H | 18.5 | 19.3 | 19.0 | 19.8 | 20.4 | 18.5 | 19.3 | 19.0 | 19.8 | 20.4 |
| 8H | 4H | 17.7 | 18.6 | 18.2 | 19.1 | 19.6 | 17.7 | 18.6 | 18.2 | 19.1 | 19.6 |
| | 6H | 18.5 | 19.2 | 19.0 | 19.7 | 20.3 | 18.5 | 19.2 | 19.0 | 19.7 | 20.3 |
| | 8H | 18.9 | 19.5 | 19.4 | 20.1 | 20.6 | 18.9 | 19.5 | 19.4 | 20.1 | 20.6 |
| | 12H | 19.2 | 19.7 | 19.7 | 20.3 | 20.9 | 19.2 | 19.7 | 19.7 | 20.3 | 20.9 |
| 12H | 4H | 17.8 | 18.6 | 18.3 | 19.1 | 19.6 | 17.8 | 18.6 | 18.3 | 19.1 | 19.6 |
| | 6H | 18.6 | 19.2 | 19.2 | 19.8 | 20.4 | 18.6 | 19.2 | 19.2 | 19.8 | 20.4 |
| | 8H | 19.0 | 19.5 | 19.6 | 20.1 | 20.7 | 19.0 | 19.5 | 19.6 | 20.1 | 20.7 |

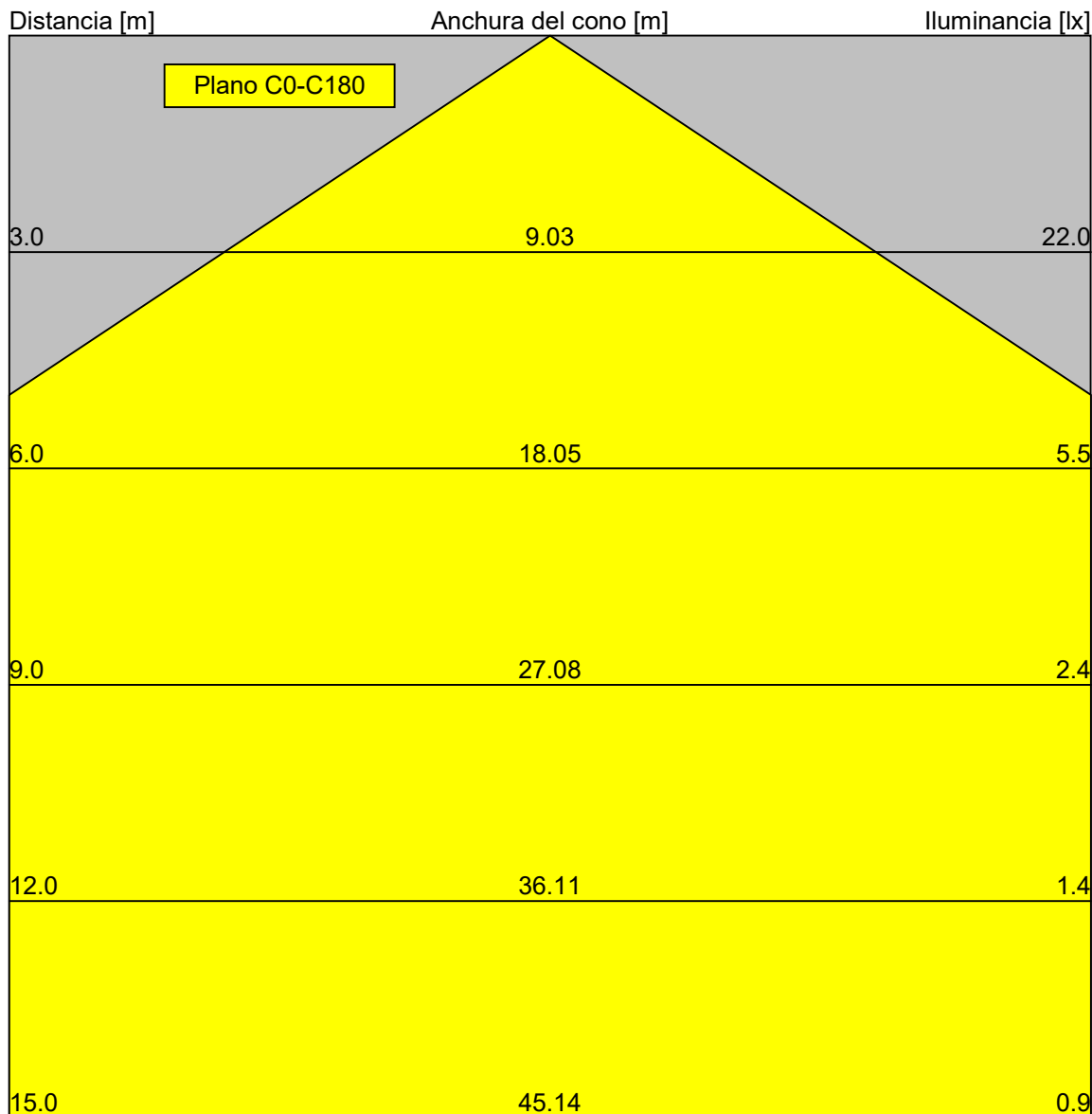
Distancia entre las luminarias: 0.25

Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 600
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx3444098156.ldt

Eficacia de luminaria : 75 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

1.2 Relux Demo, Access Ceiling Mounted Lu... (!0MJ2712L18830)

1.2.6 Diagrama cónico



Nota: La iluminancia se calcula con $I(\gamma=0)$.

Fabricante : Relux Demo
 Número de pedido : !0MJ2712L18830
 Nombre de la lum. : Access Ceiling Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 600
 Dimensiones : D 380 mm x H 65 mm
 Nombre de archivo: rlx3444098156.idt

Eficacia de luminaria : 75 lm/W (A42)
 Distribución de la luz : rotación simétrica
 Ángulo de radiación : 112.8° C0-C180

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022




2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

Datos de productos:

Tipo Cant. Producto

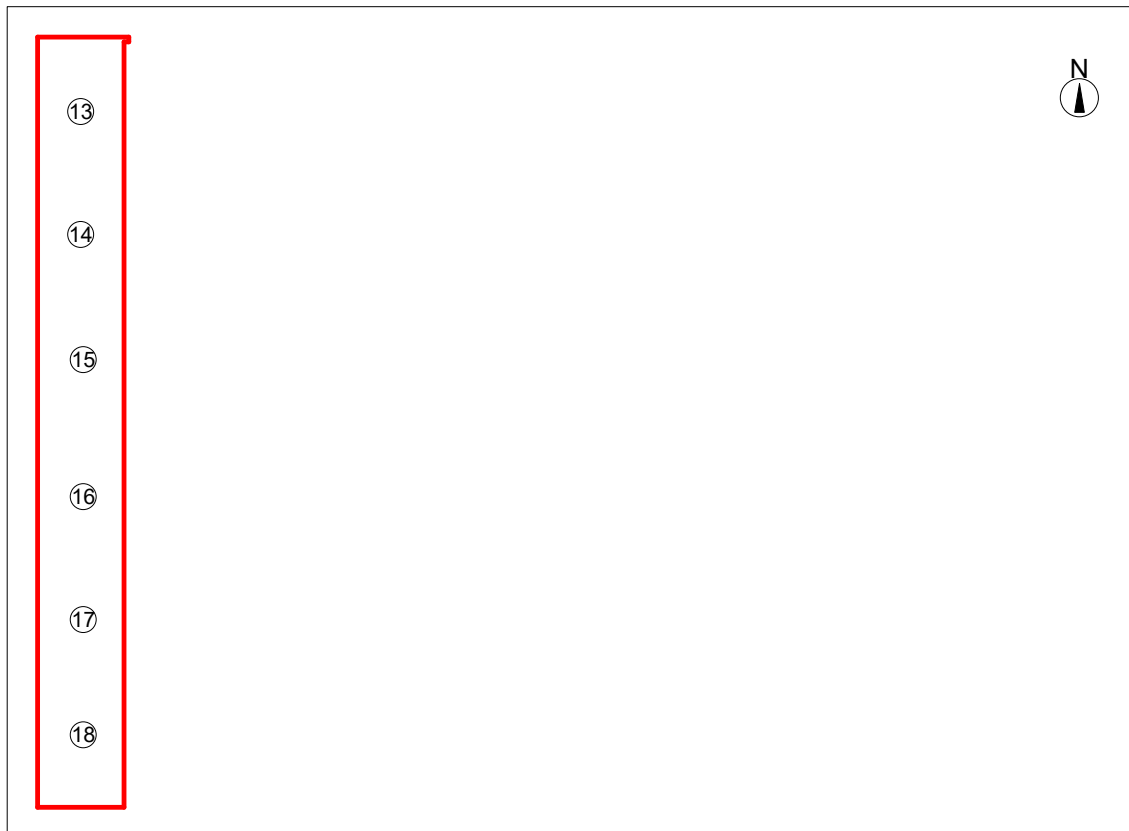
| | | | |
|---|---|---|---|
| 3 | 6 |  | Relux Demo Nº de artículo : !0MJ2712L18830 Nombre de la lum. : Access Ceiling Mounted Luminaire Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 600 lm |
|---|---|---|---|

2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

Piso con luminaria y posiciones del sensor:



| N° | Centro | | | Ángulo de rotación alrededor de | | | Coordenadas del objetivo | | |
|---|--------|-------|-------|---------------------------------|--------|---------|--------------------------|--------|--------|
| | X [m] | Y [m] | Z [m] | Z [°] | C0 [°] | C90 [°] | Xa [m] | Ya [m] | Za [m] |
| Relux Demo Access Ceiling Mounted Luminaire !0MJ2712L18830 | | | | | | | | | |
| 13 | 0.90 | 14.45 | 3.00 | 0.00 | 0.00 | 0.00 | 0.90 | 14.45 | 0.00 |
| 14 | 0.90 | 11.90 | 3.00 | 0.00 | 0.00 | 0.00 | 0.90 | 11.90 | 0.00 |
| 15 | 0.95 | 9.30 | 3.00 | 0.00 | 0.00 | 0.00 | 0.95 | 9.30 | 0.00 |
| 16 | 0.95 | 6.45 | 3.00 | 0.00 | 0.00 | 0.00 | 0.95 | 6.45 | 0.00 |
| 17 | 0.95 | 3.90 | 3.00 | 0.00 | 0.00 | 0.00 | 0.95 | 3.90 | 0.00 |
| 18 | 0.95 | 1.50 | 3.00 | 0.00 | 0.00 | 0.00 | 0.95 | 1.50 | 0.00 |

Elementos de diseño

Superficie de medición

| N° | xm[m] | ym[m] | zm[m] | Longitud | Anchura | Ángulo de rotación | | |
|---------------|-------|-------|-------|----------|---------|--------------------|-------|---------|
| | | | | | | Eje-z | Eje-L | Eje-Q |
| Niv. útil 1.1 | | | | | | | | |
| | 0.00 | 0.00 | 0.00 | 1.90 | 16.00 | 0.00 | 0.00 | 0.00 |
| M 1.1 (O) | 1.80 | 0.00 | 0.00 | 1.80 | 0.00 | 0.00 | 90.00 | -180.00 |
| M 1.2 (O) | 1.80 | 15.90 | 0.00 | 0.00 | 15.90 | 0.00 | 90.00 | -90.00 |
| M 1.3 (O) | 1.90 | 15.90 | 0.00 | 0.10 | 0.00 | 0.00 | 90.00 | -180.00 |
| M 1.4 (O) | 1.90 | 16.00 | 0.00 | 0.00 | 0.10 | 0.00 | 90.00 | -90.00 |
| M 1.5 (O) | 0.00 | 16.00 | 0.00 | 1.90 | 0.00 | 0.00 | 90.00 | -0.00 |
| M 1.6 (O) | 0.00 | 0.00 | 0.00 | 0.00 | 16.00 | 0.00 | 90.00 | 90.00 |

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022



2 Espacio 1

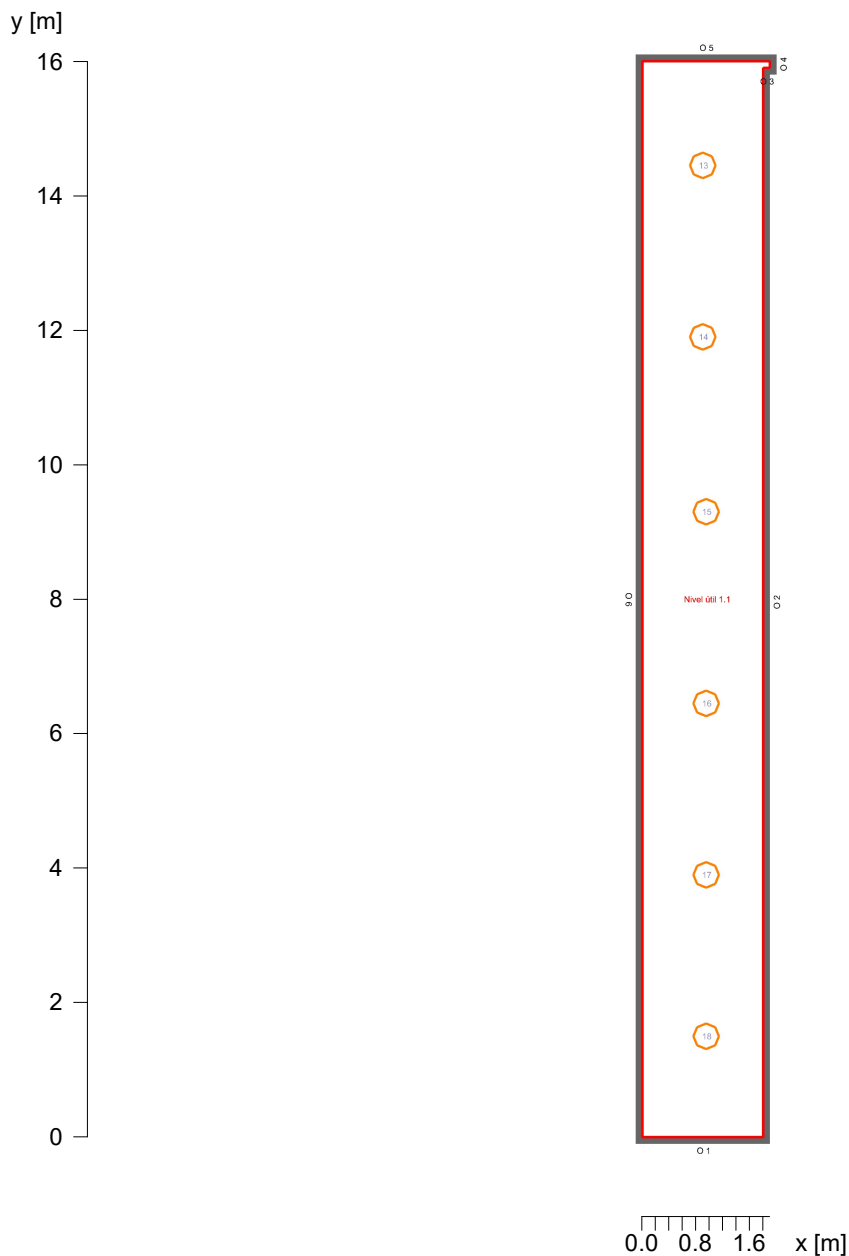
2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

| | | | | | | | | |
|----------|------|-------|------|------|-------|--------|------|--------|
| M 1.7 (D | 0.00 | 16.00 | 3.00 | 1.90 | 16.00 | 180.00 | 0.00 | 180.00 |
|----------|------|-------|------|------|-------|--------|------|--------|

2.1 Descripción Espacio 1

2.1.2 Planta horizontal



Datos del espacio:

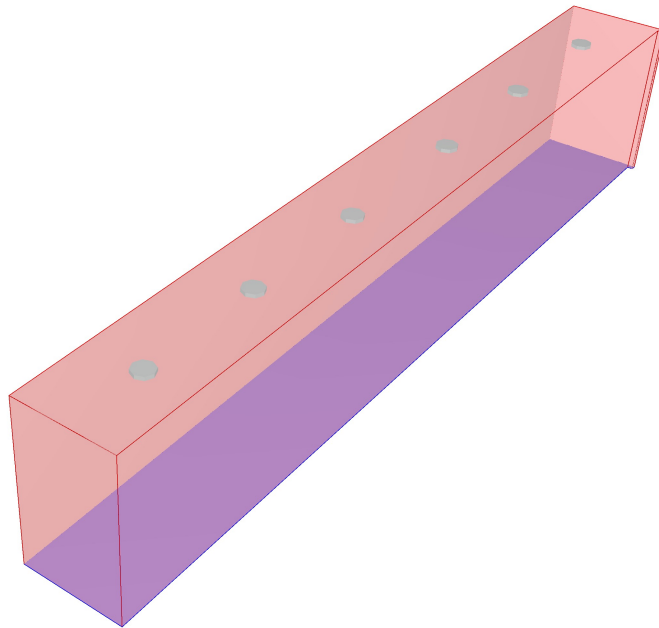
| | | |
|-------------------------------------|-------|---------|
| W1 : | 1.80 | 100.0 % |
| W2 : | 15.90 | 100.0 % |
| W3 : | 0.10 | 100.0 % |
| W4 : | 0.10 | 100.0 % |
| W5 : | 1.90 | 100.0 % |
| W6 : | 16.00 | 100.0 % |
| Suelo: | ----- | 100.0 % |
| Techo: | ----- | 100.0 % |
| Altura del espacio [m]: | | 3.00 |
| Altura del nivel útil [m]: | | 0.00 |
| Altura del nivel de luminarias [m]: | | 3.00 |

Grados de reflexión:

| |
|---------|
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |
| 100.0 % |

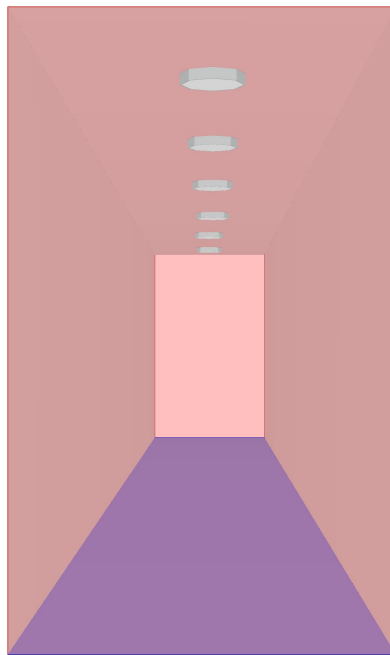
2.1 Descripción Espacio 1

2.1.3 Representación-3D, Vista 1



2.1 Descripción Espacio 1

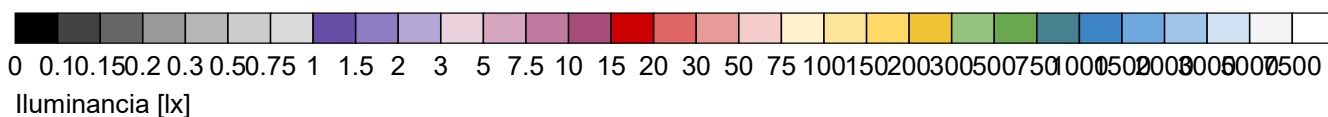
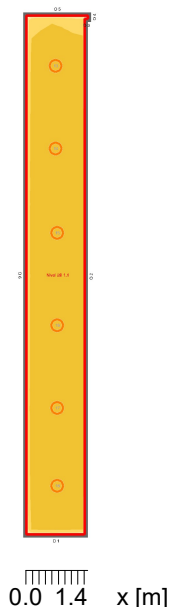
2.1.4 Representación-3D, Vista desde delante



2 Espacio 1

2.2 Resumen, Espacio 1

2.2.1 Resumen de los resultados, Superficie de evaluación 1



General

| | |
|---|--|
| Algoritmo de cálculo utilizada | Parte indirecta media |
| Altura del nivel de luminarias | 3.00 m |
| Factor de mant. | 0.80 |
| Flujo luminoso total de lámparas | 3600.00 lm |
| Potencia total | 48.0 W |
| Potencia total por superficie (28.81 m ²) | 1.67 W/m ² (0.76 W/m ² /100lx) |

Superficie de evaluación 1 Nivel útil 1.1

Perfil de usuario: Oficinas: Escritura, escritura a máquina, lectura, tratamiento de datos (Ra >80.00)

| | horizontal | | cilíndrico | |
|-----------------|------------|-------------|------------|------------|
| Em | 218 lx | (>= 200 lx) | 190 lx | (>= 50 lx) |
| Emin | 176 lx | | 135 lx | |
| Emin/Em (Uo) | 0.81 | (>= 0.60) | 0.71 | (>= 0.10) |
| Emin/Emax (Ud) | 0.75 | | | |
| UGR (9.1H 1.1H) | <=17.7 | (< 19.00) | | |
| Posición | 0.00 m | | 0.45 m | |

Superficies principales

| | Em | | Uo | |
|---------------|--------|------------|------|-----------|
| M 1.7 (Techo) | 200 lx | (>= 30 lx) | 0.62 | (>= 0.10) |
| M 1.1 (Pared) | 207 lx | (>= 50 lx) | 0.91 | (>= 0.10) |
| M 1.2 (Pared) | 216 lx | (>= 50 lx) | 0.74 | (>= 0.10) |
| M 1.3 (Pared) | 95 lx | (>= 50 lx) | 0.02 | (>= 0.10) |
| M 1.4 (Pared) | 111 lx | (>= 50 lx) | 0.19 | (>= 0.10) |
| M 1.5 (Pared) | 190 lx | (>= 50 lx) | 0.81 | (>= 0.10) |
| M 1.6 (Pared) | 215 lx | (>= 50 lx) | 0.76 | (>= 0.10) |

Objeto :
Instalación :
Nº del proyecto : Ambiente A
Fecha : 20.07.2022




2 Espacio 1

2.2 Resumen, Espacio 1

2.2.1 Resumen de los resultados, Superficie de evaluación 1

Tipo Cant. Producto

| | | |
|---|---|---|
| 3 | 6 | Relux Demo |
|  | | Nº de artículo : !0MJ2712L18830 |
| | | Nombre de la lum. : Access Ceiling Mounted Luminaire |
| | | Equipamiento : 1 x LED 3000K / CRI >= 80 9 W / 600 lm |

2 Espacio 1

2.3 Resultados del cálculo, Espacio 1

2.3.1 Tabla, Suelo (E)

| | | | | | | | |
|----|-----|-----|------------|-----|-----|------|--|
| 16 | 177 | 180 | 182 | 180 | 171 | (93) | |
| | 181 | 183 | 186 | 185 | 178 | | |
| 14 | 185 | 188 | 191 | 190 | 186 | | |
| | 189 | 192 | 197 | 195 | 193 | | |
| | 193 | 197 | 200 | 200 | 199 | | |
| | 196 | 200 | 204 | 204 | 201 | | |
| | 198 | 202 | 206 | 206 | 204 | | |
| | 200 | 204 | 208 | 208 | 205 | | |
| | 202 | 206 | 209 | 208 | 205 | | |
| | 204 | 208 | 211 | 210 | 206 | | |
| | 205 | 209 | 213 | 211 | 208 | | |
| | 207 | 211 | 214 | 213 | 209 | | |
| 12 | 208 | 212 | 215 | 214 | 211 | | |
| | 209 | 213 | 216 | 215 | 212 | | |
| | 210 | 213 | 216 | 216 | 212 | | |
| | 209 | 213 | 216 | 216 | 213 | | |
| | 209 | 213 | 216 | 216 | 213 | | |
| | 208 | 213 | 217 | 216 | 213 | | |
| | 209 | 213 | 217 | 217 | 214 | | |
| | 209 | 213 | 218 | 218 | 215 | | |
| 10 | 210 | 214 | 219 | 218 | 215 | | |
| | 211 | 214 | 220 | 218 | 215 | | |
| | 211 | 215 | 220 | 218 | 214 | | |
| | 212 | 215 | 218 | 217 | 213 | | |
| | 212 | 215 | 218 | 217 | 213 | | |
| | 211 | 215 | 217 | 217 | 213 | | |
| | 212 | 216 | 218 | 217 | 213 | | |
| | 214 | 217 | 219 | 218 | 215 | | |
| | 215 | 218 | 221 | 219 | 216 | | |
| | 217 | 219 | 222 | 221 | 217 | | |
| 8 | 217 | 220 | 223 | 222 | 218 | | |
| | 217 | 220 | 223 | 223 | 219 | | |
| | 217 | 220 | 223 | 223 | 219 | | |
| | 217 | 220 | 223 | 223 | 219 | | |
| | 217 | 220 | 223 | 223 | 219 | | |
| | 217 | 220 | 224 | 223 | 219 | | |
| | 217 | 221 | 224 | 223 | 219 | | |
| | 218 | 221 | 225 | 223 | 220 | | |
| | 6 | | | | | | |
| | | | | | | | |
| 4 | | | | | | | |
| | | | | | | | |



Parte1

| | | |
|--------------------|-----------|-------------------|
| Iluminancia media | Em | : 211 lx |
| Iluminancia mínima | Emin | : 93 lx |
| Iluminancia máxima | Emax | : 225 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 2.26 (0.44) |
| Uniformidad Ud | Emin/Emax | : 1 : 2.42 (0.41) |

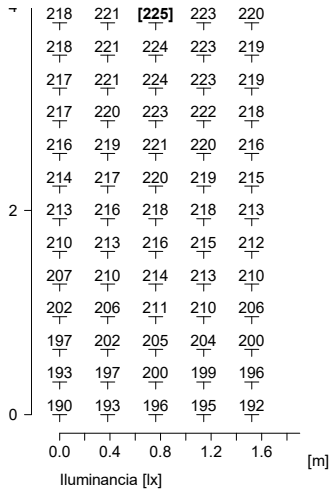
Objeto :
 Instalación :
 N° del proyecto : Ambiente A
 Fecha : 20.07.2022



2 Espacio 1

2.3 Resultados del cálculo, Espacio 1

2.3.1 Tabla, Suelo (E)



Parte2

2.3 Resultados del cálculo, Espacio 1

2.3.2 Tabla, Nivel útil 1.1 (E)

| | | | | | | |
|----|-----|-----|------------|-----|-------|-------|
| | 182 | 183 | 188 | 184 | (176) | (176) |
| | 186 | 191 | 196 | 193 | 188 | 186 |
| | 191 | 198 | 203 | 200 | 196 | 194 |
| | 198 | 202 | 207 | 205 | 201 | 198 |
| | 200 | 206 | 211 | 209 | 205 | 202 |
| | 204 | 208 | 213 | 212 | 207 | 204 |
| 14 | 204 | 210 | 216 | 213 | 210 | 206 |
| | 208 | 212 | 217 | 214 | 211 | 208 |
| | 209 | 213 | 219 | 216 | 213 | 208 |
| | 209 | 216 | 221 | 217 | 214 | 211 |
| | 212 | 217 | 222 | 220 | 216 | 211 |
| | 213 | 219 | 224 | 222 | 217 | 214 |
| 12 | 215 | 220 | 225 | 223 | 218 | 215 |
| | 215 | 221 | 226 | 224 | 219 | 215 |
| | 217 | 221 | 226 | 224 | 219 | 215 |
| | 217 | 221 | 227 | 224 | 219 | 214 |
| | 215 | 221 | 227 | 225 | 219 | 216 |
| | 217 | 221 | 227 | 224 | 220 | 216 |
| 10 | 216 | 223 | 228 | 224 | 220 | 217 |
| | 218 | 222 | 228 | 226 | 222 | 217 |
| | 217 | 223 | 229 | 227 | 222 | 219 |
| | 218 | 223 | 229 | 226 | 222 | 219 |
| | 218 | 223 | 229 | 226 | 222 | 218 |
| | 217 | 222 | 228 | 226 | 221 | 218 |
| 8 | 218 | 222 | 228 | 225 | 221 | 216 |
| | 216 | 223 | 228 | 226 | 221 | 217 |
| | 218 | 222 | 228 | 226 | 221 | 216 |
| | 217 | 224 | 229 | 226 | 222 | 218 |
| | 220 | 224 | 230 | 228 | 223 | 218 |
| | 222 | 226 | 231 | 229 | 224 | 220 |
| | 221 | 227 | 232 | 230 | 225 | 220 |
| 6 | 223 | 227 | 233 | 230 | 225 | 221 |
| | 221 | 228 | 233 | 230 | 226 | 221 |
| | 223 | 227 | 233 | 230 | 226 | 220 |
| | 221 | 228 | 233 | 231 | 226 | 221 |
| | 223 | 227 | 233 | 231 | 227 | 221 |
| | 223 | 228 | 234 | 230 | 227 | 223 |
| | 222 | 228 | 234 | 232 | 228 | 223 |
| 4 | 224 | 228 | 234 | 233 | 227 | 223 |

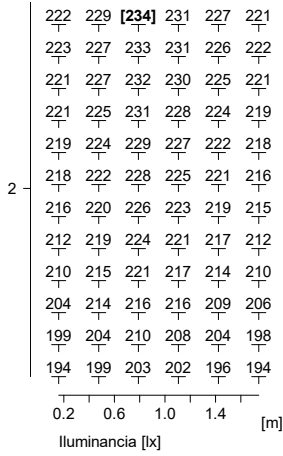


Parte1

| | | |
|--------------------------------|-----------|-------------------|
| Altura del nivel de referencia | : | 0.00 m |
| Iluminancia media | Em | : 218 lx |
| Iluminancia mínima | Emin | : 176 lx |
| Iluminancia máxima | Emax | : 234 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.24 (0.81) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.33 (0.75) |

2.3 Resultados del cálculo, Espacio 1

2.3.2 Tabla, Nivel útil 1.1 (E)



2.3 Resultados del cálculo, Espacio 1

2.3.3 Tabla, Suelo (L)

| | | | | | | |
|----|------|------|------|------|-------------|--|
| 16 | 53,5 | 54,3 | 55,1 | 54,6 | 51,6 (28,2) | |
| | 54,7 | 55,5 | 56,2 | 55,9 | 53,7 | |
| 14 | 55,9 | 56,8 | 57,7 | 57,5 | 56,3 | |
| | 57,2 | 58,2 | 59,5 | 58,9 | 58,4 | |
| | 58,3 | 59,5 | 60,6 | 60,6 | 60,1 | |
| | 59,2 | 60,4 | 61,7 | 61,7 | 60,9 | |
| | 59,8 | 61,1 | 62,4 | 62,3 | 61,5 | |
| | 60,5 | 61,6 | 62,8 | 62,8 | 61,9 | |
| | 61,1 | 62,2 | 63,2 | 62,9 | 62 | |
| | 61,7 | 62,8 | 63,8 | 63,4 | 62,4 | |
| | 62,1 | 63,3 | 64,3 | 63,9 | 62,9 | |
| | 62,6 | 63,7 | 64,7 | 64,4 | 63,4 | |
| 12 | 62,9 | 64,1 | 65,1 | 64,7 | 63,7 | |
| | 63,2 | 64,4 | 65,4 | 65,1 | 64 | |
| | 63,4 | 64,5 | 65,4 | 65,4 | 64,2 | |
| | 63,3 | 64,4 | 65,4 | 65,4 | 64,3 | |
| | 63,1 | 64,3 | 65,4 | 65,4 | 64,4 | |
| | 63 | 64,3 | 65,5 | 65,4 | 64,5 | |
| | 63,1 | 64,3 | 65,6 | 65,6 | 64,7 | |
| | 63,2 | 64,5 | 65,9 | 65,8 | 65 | |
| | 63,4 | 64,6 | 66,2 | 65,9 | 65,2 | |
| | 63,7 | 64,8 | 66,4 | 65,9 | 65,2 | |
| 10 | 63,9 | 65 | 66,4 | 65,9 | 64,8 | |
| | 64,1 | 65 | 66 | 65,6 | 64,4 | |
| | 64,1 | 65 | 65,8 | 65,6 | 64,4 | |
| | 63,9 | 65 | 65,8 | 65,7 | 64,4 | |
| | 64,2 | 65,2 | 66 | 65,7 | 64,6 | |
| | 64,7 | 65,5 | 66,3 | 65,9 | 64,9 | |
| | 65,2 | 65,9 | 66,8 | 66,3 | 65,3 | |
| | 65,5 | 66,3 | 67,1 | 66,8 | 65,7 | |
| | 65,6 | 66,5 | 67,4 | 67,1 | 65,9 | |
| | 65,6 | 66,5 | 67,4 | 67,2 | 66,1 | |
| 8 | 65,6 | 66,5 | 67,5 | 67,3 | 66,2 | |
| | 65,6 | 66,6 | 67,5 | 67,3 | 66,2 | |
| | 65,7 | 66,6 | 67,6 | 67,3 | 66,2 | |
| | 65,7 | 66,7 | 67,7 | 67,4 | 66,3 | |
| | 65,8 | 66,8 | 67,8 | 67,5 | 66,4 | |
| | 65,9 | 66,9 | 68,1 | 67,5 | 66,4 | |
| | 6 | | | | | |
| | | | | | | |
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Parte1

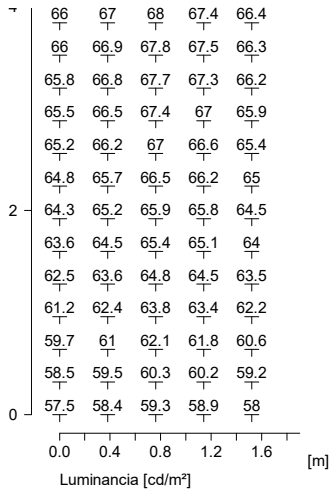
| | | |
|-------------------|----|--------------------------|
| Luminancia media | Lm | : 63.7 cd/m ² |
| Luminancia mínima | Lm | : 28.2 cd/m ² |
| Luminancia máxima | Lm | : 68.1 cd/m ² |

Objeto :
 Instalación :
 N° del proyecto : Ambiente A
 Fecha : 20.07.2022



2.3 Resultados del cálculo, Espacio 1

2.3.3 Tabla, Suelo (L)



Parte2

2.3 Resultados del cálculo, Espacio 1

2.3.4 Tabla, Nivel útil 1.1 (Ec)

| | | | | | | |
|----|-----|-----|------------|-----|-----|-----|
| | 146 | 160 | 161 | 160 | 154 | 137 |
| | 165 | 177 | 177 | 178 | 173 | 149 |
| | 167 | 180 | 182 | 181 | 178 | 148 |
| | 169 | 182 | 184 | 180 | 181 | 147 |
| | 173 | 183 | 186 | 185 | 184 | 148 |
| | 178 | 187 | 189 | 189 | 186 | 156 |
| 14 | 174 | 189 | 192 | 191 | 188 | 162 |
| | 178 | 193 | 193 | 193 | 191 | 173 |
| | 182 | 194 | 194 | 195 | 192 | 170 |
| | 183 | 195 | 197 | 196 | 193 | 176 |
| | 180 | 195 | 196 | 196 | 195 | 165 |
| | 184 | 197 | 198 | 197 | 194 | 163 |
| 12 | 183 | 196 | 198 | 198 | 196 | 157 |
| | 181 | 198 | 197 | 197 | 197 | 158 |
| | 185 | 198 | 200 | 200 | 197 | 164 |
| | 186 | 200 | 199 | 200 | 199 | 168 |
| | 187 | 201 | 202 | 201 | 199 | 176 |
| | 186 | 200 | 202 | 201 | 197 | 174 |
| | 186 | 201 | 201 | 201 | 200 | 183 |
| 10 | 187 | 201 | 202 | 201 | 198 | 169 |
| | 189 | 200 | 202 | 200 | 198 | 169 |
| | 187 | 202 | 201 | 201 | 197 | 158 |
| | 189 | 201 | 203 | 202 | 198 | 162 |
| | 186 | 202 | 203 | 203 | 200 | 164 |
| | 186 | 202 | 202 | 201 | 201 | 171 |
| 8 | 186 | 202 | 203 | 203 | 200 | 174 |
| | 186 | 202 | 203 | 202 | 202 | 175 |
| | 189 | 204 | 205 | 204 | 202 | 187 |
| | 191 | 204 | 205 | 204 | 201 | 171 |
| | 188 | 204 | 202 | 202 | 202 | 173 |
| | 188 | 204 | 204 | 204 | 201 | 160 |
| 6 | 190 | 205 | 205 | 205 | 203 | 165 |
| | 191 | 206 | 204 | 204 | 204 | 164 |
| | 191 | 206 | 208 | 207 | 203 | 162 |
| | 192 | 207 | 207 | 207 | 204 | 173 |
| | 194 | 207 | 207 | 206 | 204 | 173 |
| | 192 | 206 | 208 | 206 | 204 | 190 |
| | 188 | 206 | 205 | 205 | 203 | 179 |
| 4 | 195 | 205 | 207 | 204 | 202 | 177 |



Parte1

Iluminancia cilíndrica

Altura del nivel de referencia

: 0.45 m

Iluminancia media

Em : 190 lx

Iluminancia mínima

Emin : 135 lx

Iluminancia máxima

Emax : 208 lx:

Uniformidad Uo

Emin/Em : 1 : 1.41 (0.71)

Uniformidad Ud

Emin/Emax : 1 : 1.54 (0.65)

2.3 Resultados del cálculo, Espacio 1

2.3.4 Tabla, Nivel útil 1.1 (Ec)

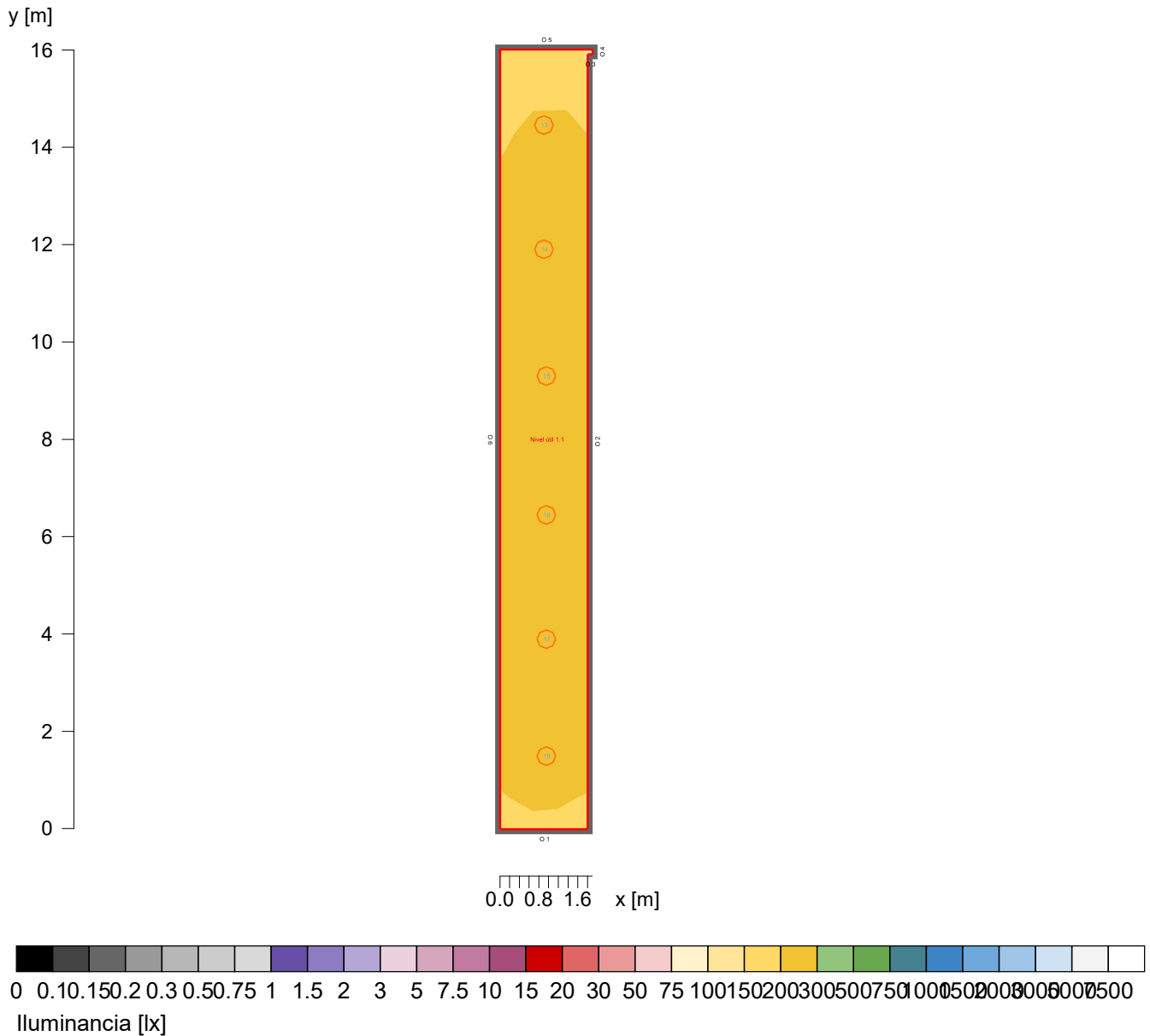
| | | | | | |
|-----|-----|-----|-----|-----|-------|
| 192 | 205 | 205 | 205 | 203 | 173 |
| 189 | 204 | 205 | 205 | 203 | 167 |
| 192 | 205 | 206 | 205 | 201 | 163 |
| 191 | 204 | 204 | 204 | 202 | 160 |
| 188 | 202 | 204 | 203 | 201 | 169 |
| 185 | 201 | 202 | 202 | 198 | 169 |
| 186 | 199 | 197 | 196 | 198 | 180 |
| 184 | 197 | 198 | 197 | 194 | 172 |
| 181 | 194 | 197 | 195 | 193 | 174 |
| 178 | 193 | 194 | 194 | 191 | 162 |
| 177 | 188 | 191 | 191 | 186 | 154 |
| 155 | 175 | 172 | 178 | 172 | (135) |
| | 0.2 | 0.6 | 1.0 | 1.4 | [m] |



Parte2

2.3 Resultados del cálculo, Espacio 1

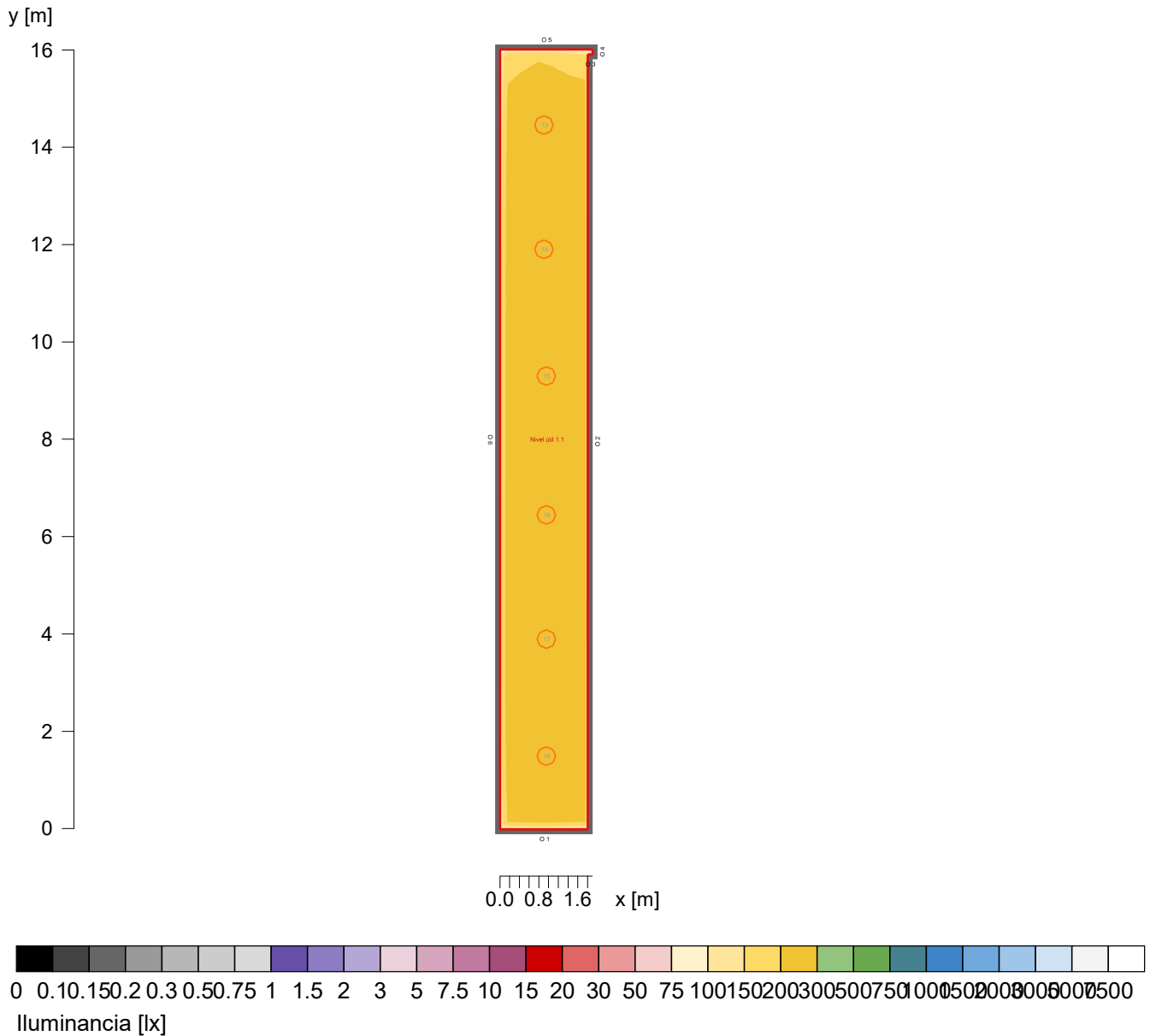
2.3.5 Colores falsos, Suelo (E)



| | | |
|--------------------|-----------|-------------------|
| Iluminancia media | Em | : 211 lx |
| Iluminancia mínima | Emin | : 93 lx |
| Iluminancia máxima | Emax | : 225 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 2.26 (0.44) |
| Uniformidad Ud | Emin/Emax | : 1 : 2.42 (0.41) |

2.3 Resultados del cálculo, Espacio 1

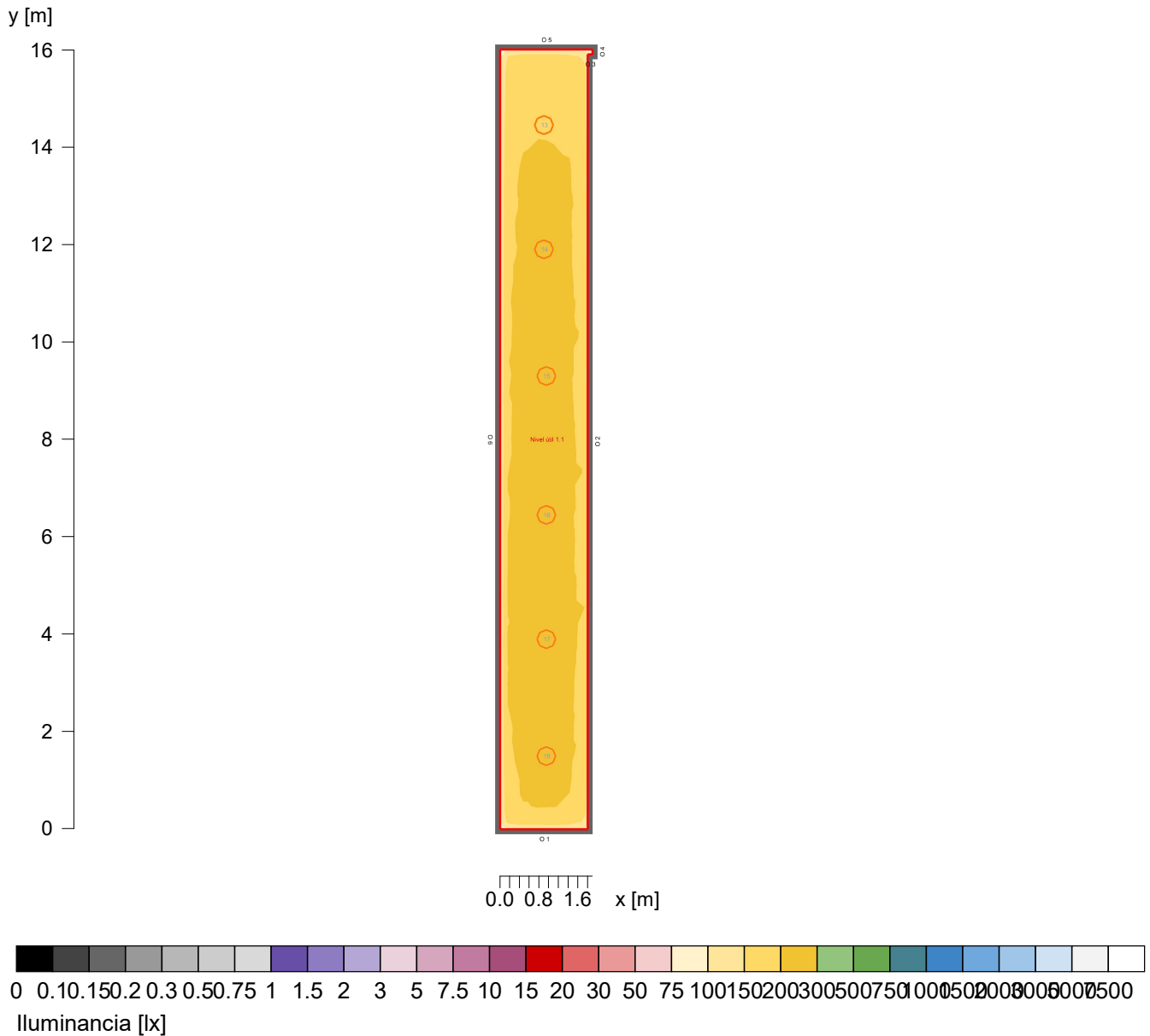
2.3.6 Colores falsos, Nivel útil 1.1 (E)



| | | |
|--------------------------------|-----------|-------------------|
| Altura del nivel de referencia | | : 0.00 m |
| Iluminancia media | Em | : 218 lx |
| Iluminancia mínima | Emin | : 176 lx |
| Iluminancia máxima | Emax | : 234 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.24 (0.81) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.33 (0.75) |

2.3 Resultados del cálculo, Espacio 1

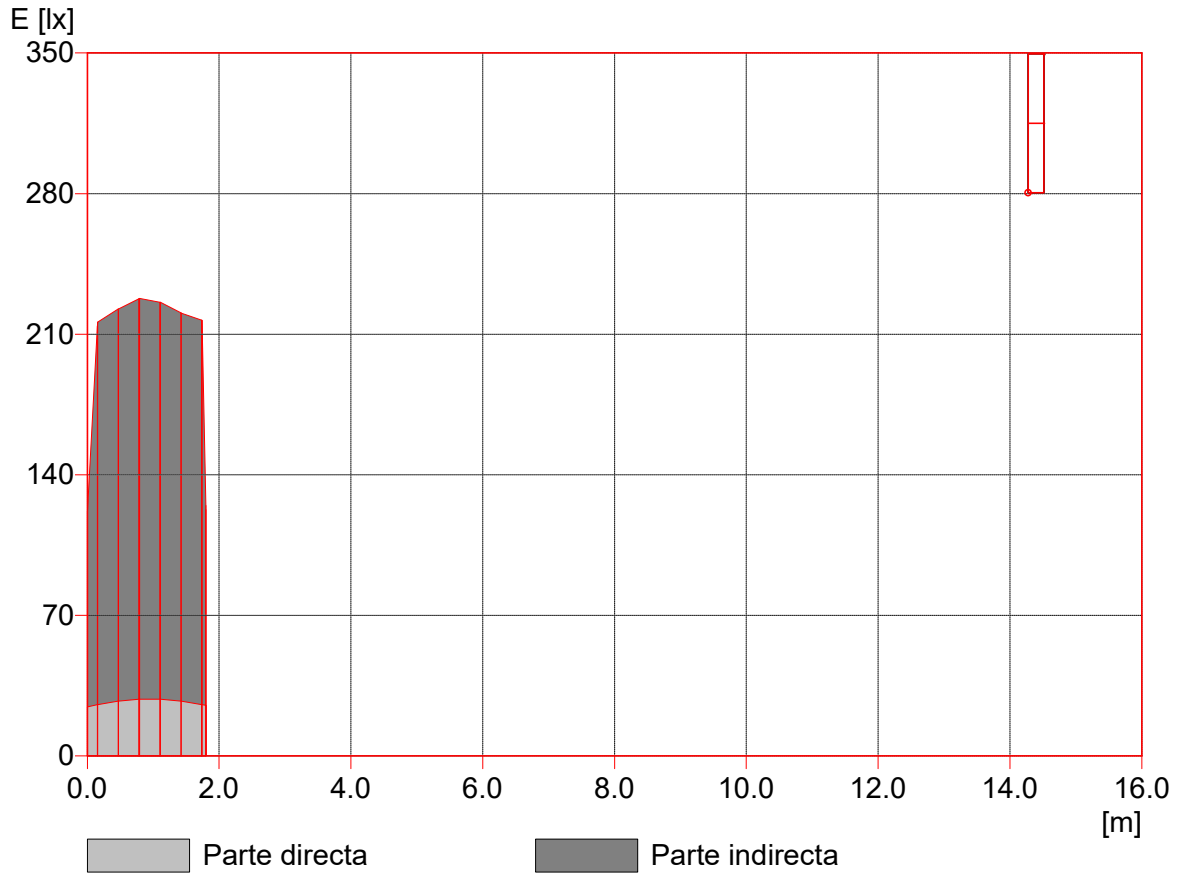
2.3.7 Colores falsos, Nivel útil 1.1 (Ec)



| | | |
|--------------------------------|-----------|-------------------|
| Iluminancia cilíndrica | | |
| Altura del nivel de referencia | | : 0.45 m |
| Iluminancia media | Em | : 190 lx |
| Iluminancia mínima | Emin | : 135 lx |
| Iluminancia máxima | Emax | : 208 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.41 (0.71) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.54 (0.65) |

2.3 Resultados del cálculo, Espacio 1

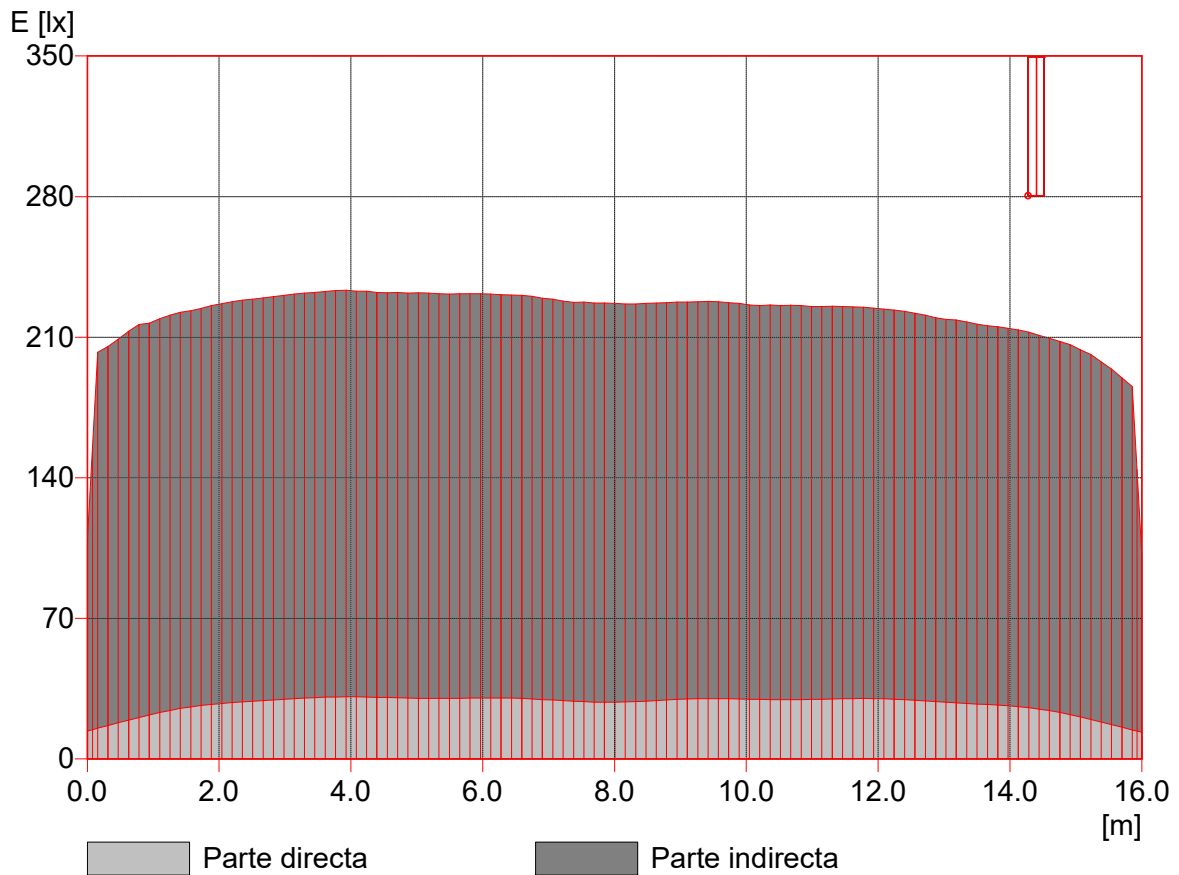
2.3.8 Sección longitudinal, Nivel útil 1.1 (E)



Sección longitudinal en $y = 8.00$ m

2.3 Resultados del cálculo, Espacio 1

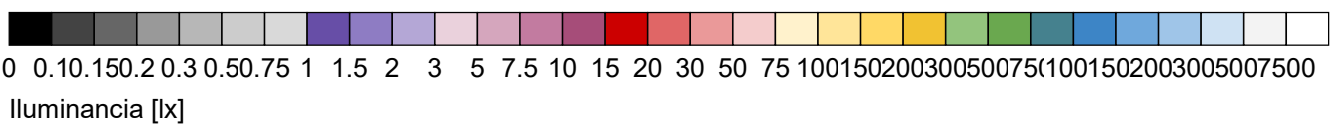
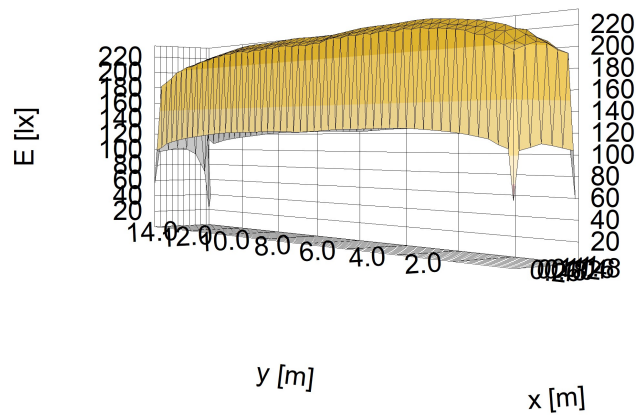
2.3.9 Sección transversal, Nivel útil 1.1 (E)



Sección transversal en $x = 0.95$ m

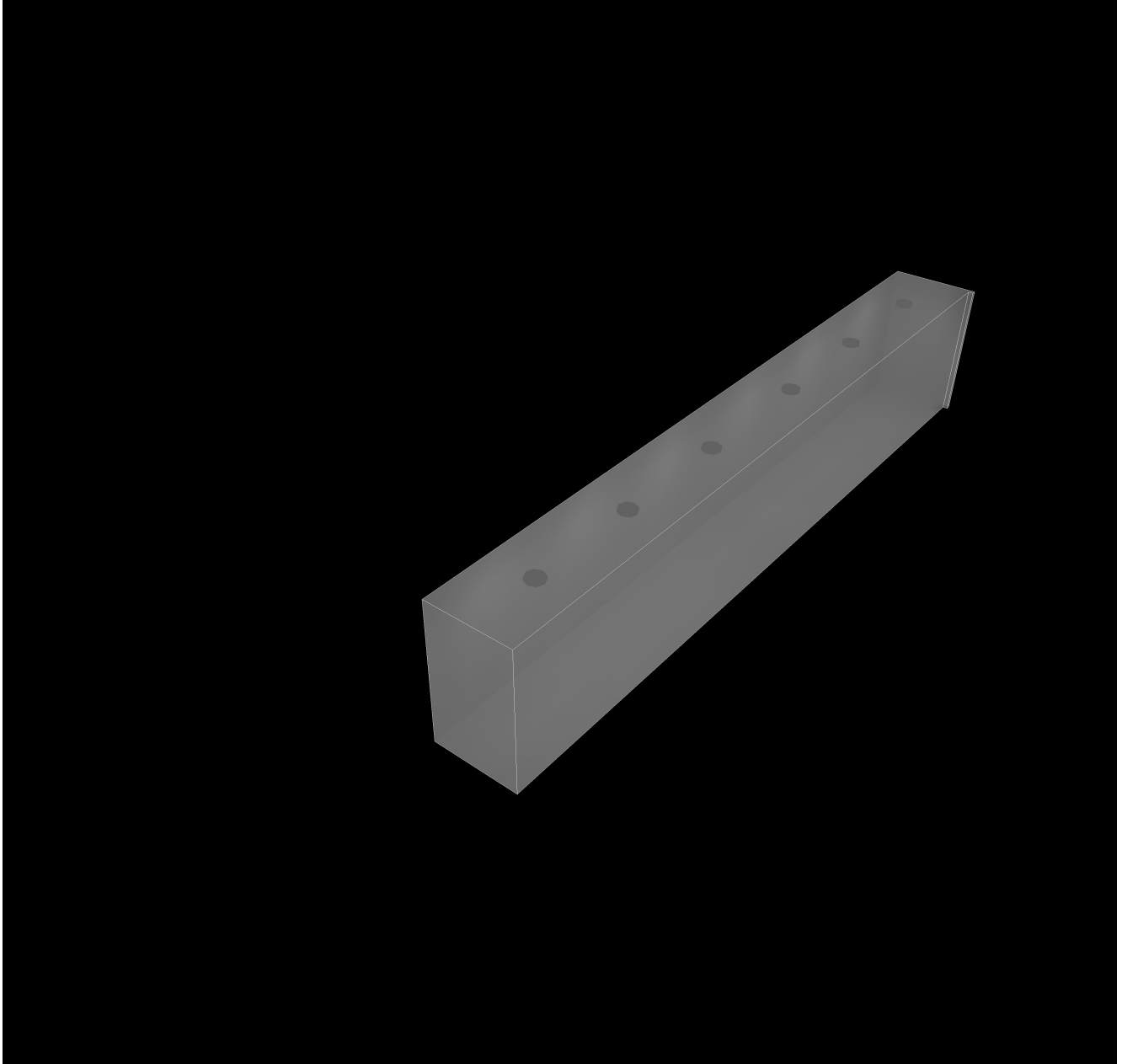
2.3 Resultados del cálculo, Espacio 1

2.3.10 Relieve 3D, Nivel útil 1.1 (E)



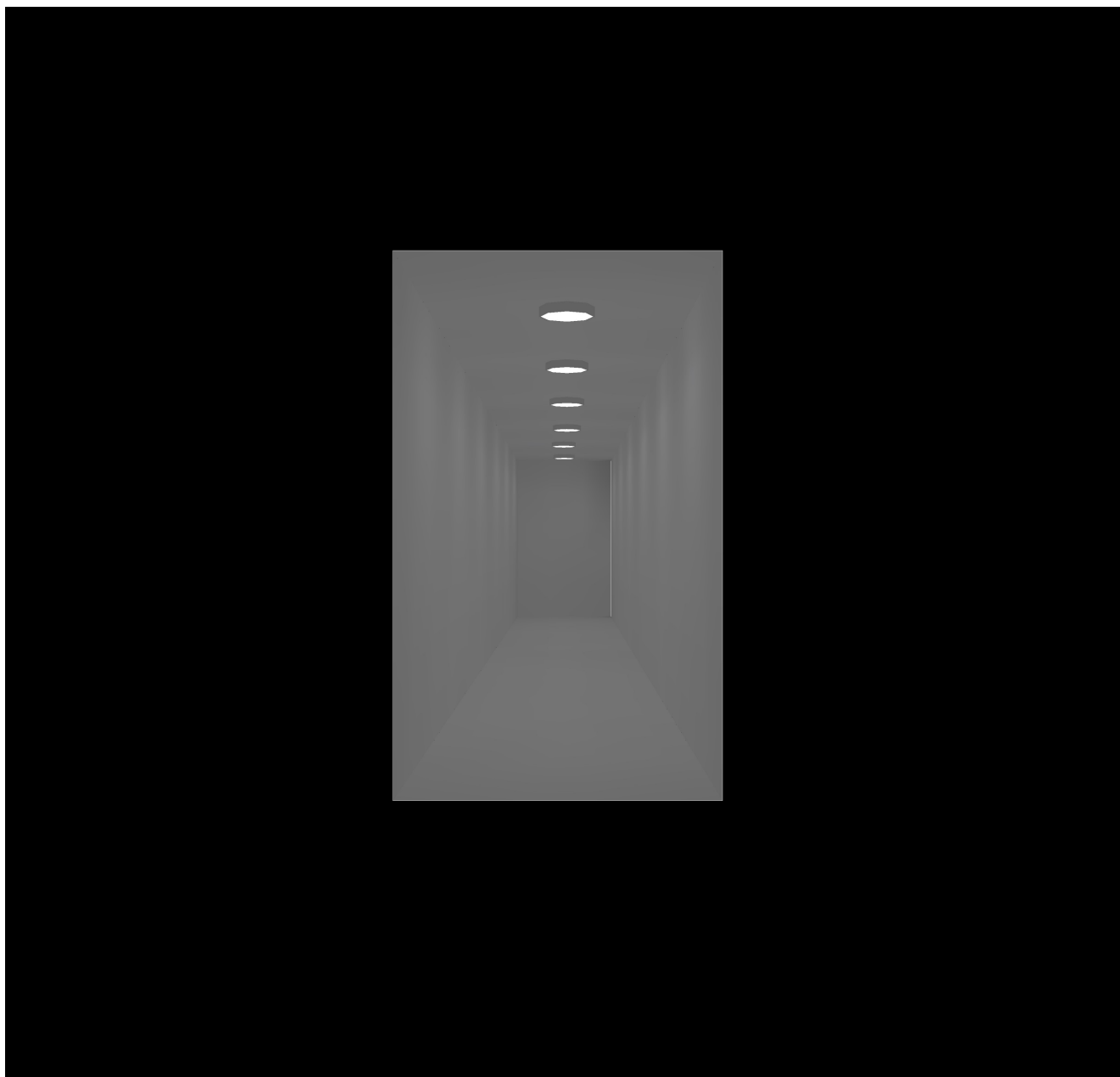
2.3 Resultados del cálculo, Espacio 1

2.3.11 Luminancia-3D, Vista 1



2.3 Resultados del cálculo, Espacio 1

2.3.12 Luminancia-3D, Vista desde delante



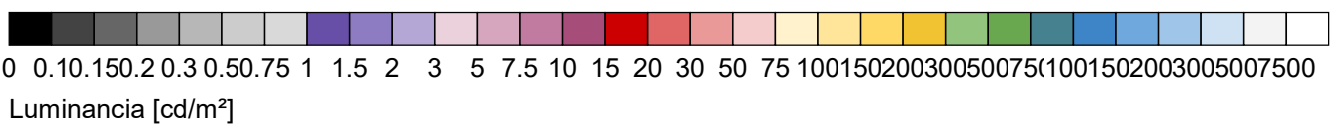
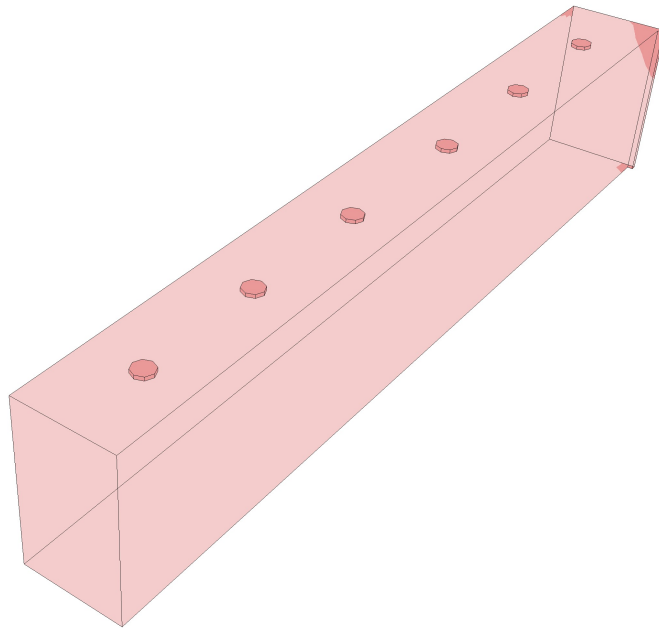
2.3 Resultados del cálculo, Espacio 1

2.3.13 Luminancia-3D, Vista desde la izquierda



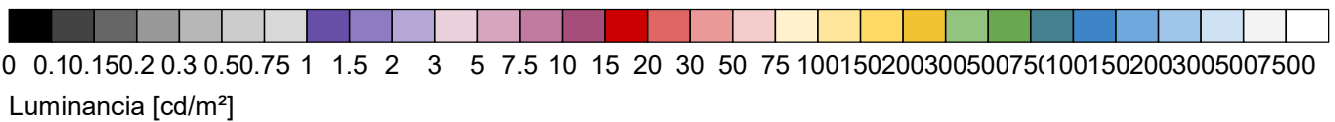
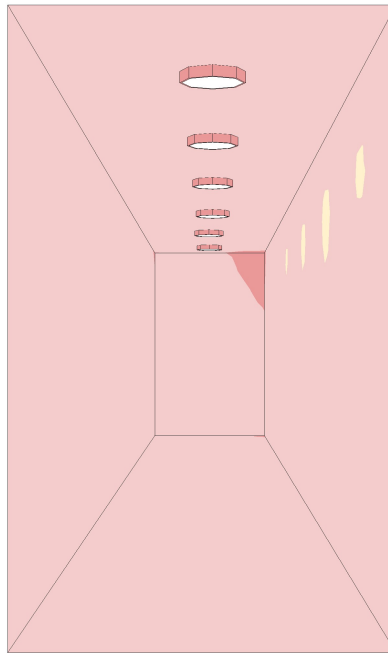
2.3 Resultados del cálculo, Espacio 1

2.3.14 Colores falsos-3D, Vista 1 (L)



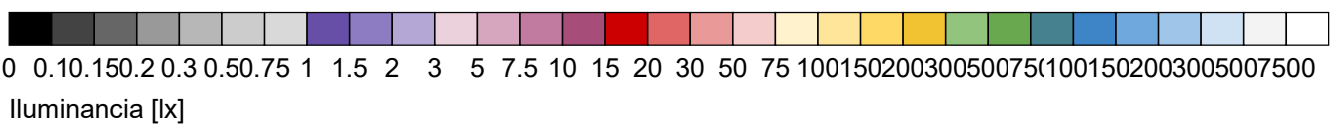
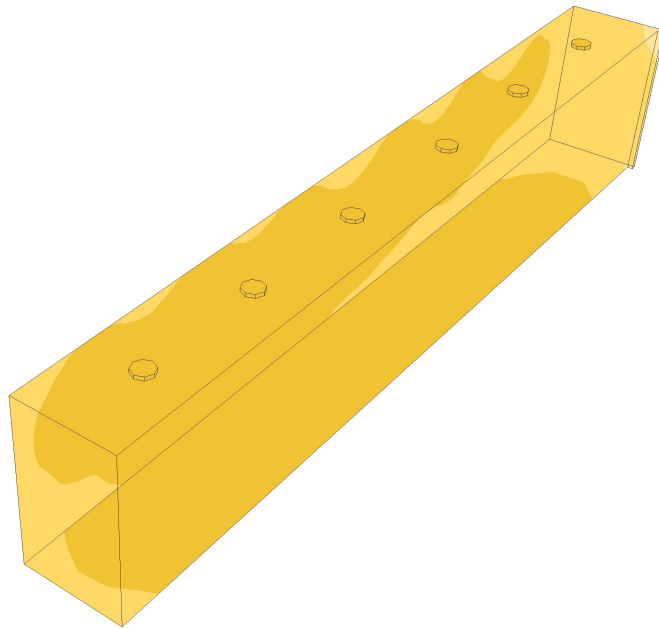
2.3 Resultados del cálculo, Espacio 1

2.3.15 Colores falsos-3D, Vista desde delante (L)



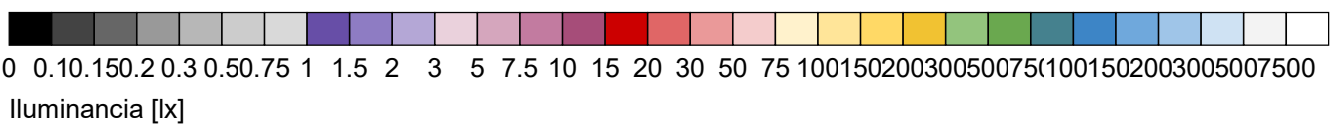
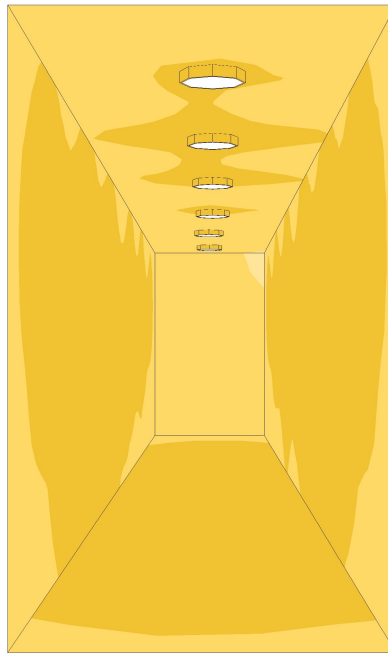
2.3 Resultados del cálculo, Espacio 1

2.3.16 Colores falsos-3D, Vista 1 (E)



2.3 Resultados del cálculo, Espacio 1

2.3.17 Colores falsos-3D, Vista desde delante (E)



Instalación :

Nº del proyecto : Sum central

Cliente : Leonardo Garcia

Responsable :

Fecha : 19.08.2022

Los siguientes valores se basan en los cálculos exactos en lámparas, luminarias calibradas y en su disposición nominal. En la práctica pueden producirse variaciones graduales. Quedan excluidos los derechos de garantía para los datos de luminarias. El fabricante no se responsabiliza de los daños subsiguientes o daños originados al usuario o a terceros.

Objeto :
Instalación :
Nº del proyecto : Sum central
Fecha : 19.08.2022

RELUX®

1 Datos de luminarias

1.1 Relux Demo, Outdoor Floodlight Wall Mo... (!5XA7693F1A1D)

1.1.1 Hoja de datos

Fabricante: Relux Demo

RELUX®

!5XA7693F1A1D Floodlight-pylon top Outdoor Floodlight Wall Mounted Luminaire

Floodlight 20 maxi LED, floodlight, primary light control with lens, of PMMA, primary optical cover: cover panel, of toughened safety glass, transparent, light distribution: PL43, light emission: direct distribution, installation type: surface-mounted, LED, LED High Power, luminous flux: 60.750 lm, luminous efficacy: 103lm/W, light colour: 730, colour temperature: 3000K, control gear: ECG Basic, control: power reduction, overheat protection, electronic power reduction, with terminal, 4-pole, max. 2.5mm², mains connection: 220..240V, AC, 50/60Hz, connected load: 590W, LED unit, luminaire module, of diecast aluminium, housing frame, of diecast aluminium, mounting bracket, of steel, ON/OFF, protection rating (complete): IP66, insulation class (complete): insulation class I (protective earthing), certification: CE, ENEC in preparation, ball protection: ball impact resistant, packaging unit: 1 piece

Light Distribution: PL43

factory setting: luminousflux part=100%

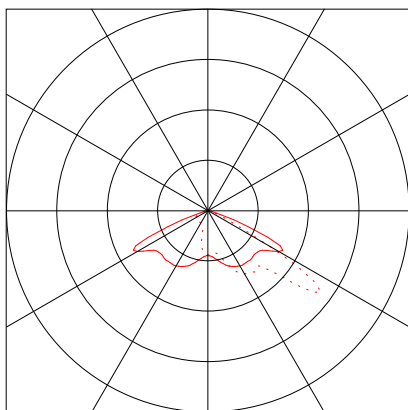
Datos de luminarias

Fotometría absoluta
Eficacia de luminaria : 88 lm/W
Clasificación : A30 ↓100.0% ↑0.0%
CIE Flux Codes : 31 74 99 100 100
Deslumbramiento : G*6 / D5
Potencia : 250 W
Flujo luminoso : 22000 lm

Equipamiento con

Cantidad : 1
Designación : LED 3000K /
CRI >= 70
Color : 3000K
Reproducción cromática 74

Dimensiones : 975 mm x 730 mm x 450 mm

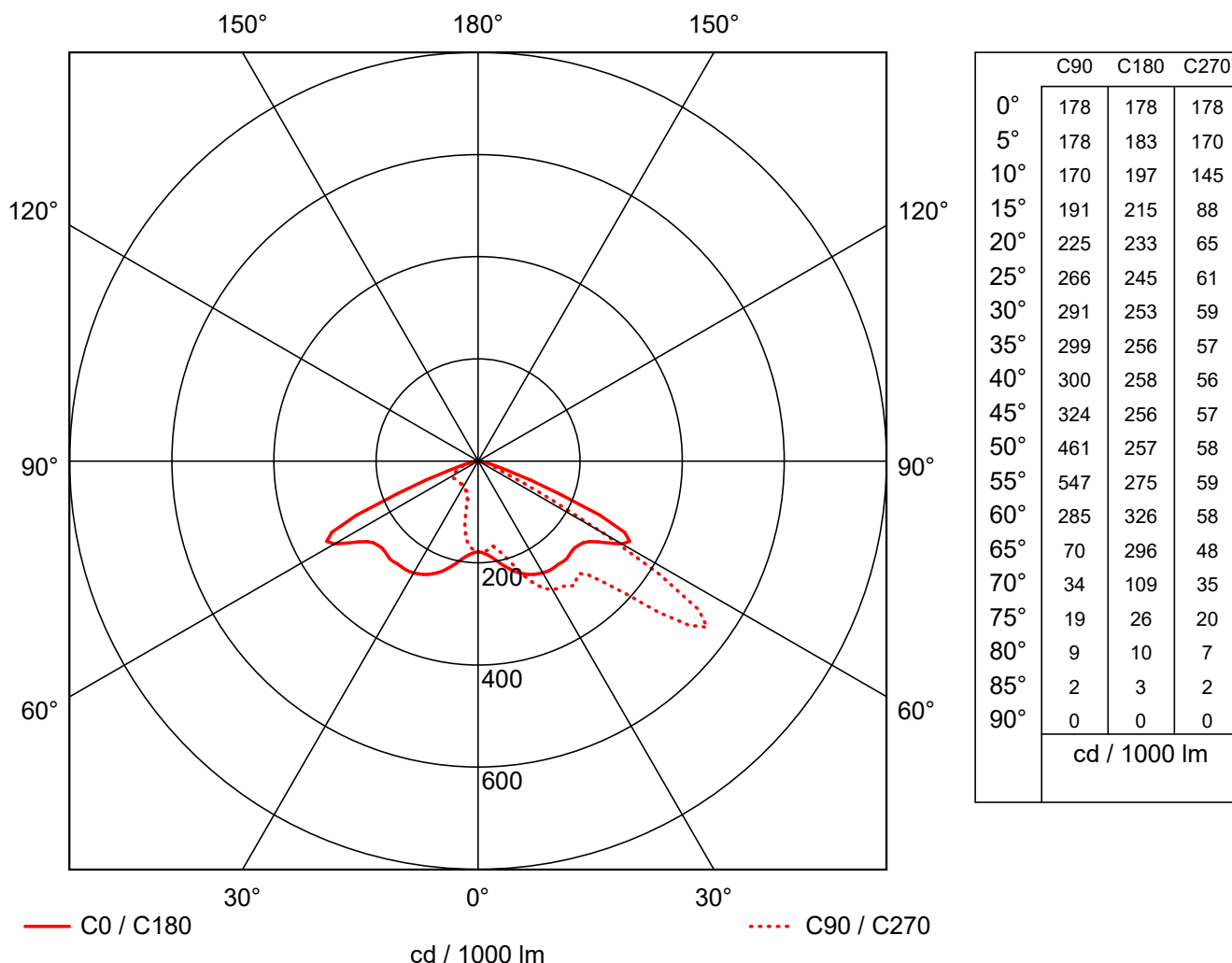


Objeto :
 Instalación :
 N° del proyecto : Sum central
 Fecha : 19.08.2022



1.1 Relux Demo, Outdoor Floodlight Wall Mo... (!5XA7693F1A1D)

1.1.2 CDL



Fabricante : Relux Demo
 Número de pedido : !5XA7693F1A1D/
 Nombre de la lum. : Outdoor Floodlight Wall Mounted Luminaire
 Equipamiento : 1 x LED 3000K / CRI >= 70 200 W / 2
 Dimensiones : L 975 mm x B 730 mm x H 450 mm
 Nombre de archivo: rlx1372297625.ltd

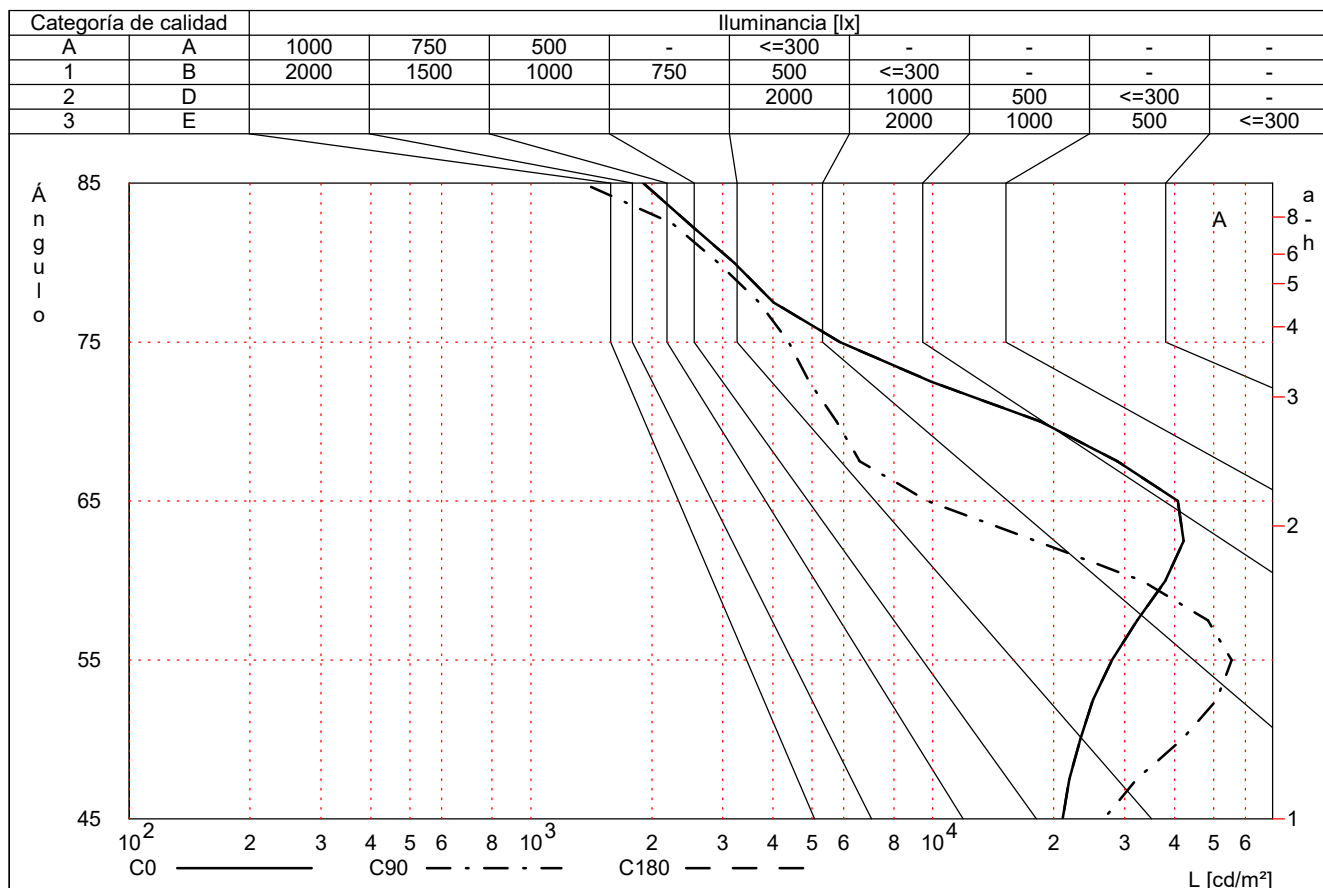
Eficacia de luminaria : 88 lm/W (A30)
 Distribución de la luz : simétrico con C90-C270
 Ángulo de radiación : -- C0-C180
 58.4° C90
 -- C270

Objeto :
 Instalación :
 N° del proyecto : Sum central
 Fecha : 19.08.2022



1.1 Relux Demo, Outdoor Floodlight Wall Mo... (!5XA7693F1A1D)

1.1.3 Diagrama Söllner



Fabricante : Relux Demo
 Número de pedido : !5XA7693F1A1D/
 Nombre de la lum. : Outdoor Floodlight Wall Mounted
 Equipamiento : 1 x LED 3000K / CRI >= 70 200 W / 2
 Dimensiones : L 975 mm x B 730 mm x H 450 mm
 Nombre de archivo: rlx1372297625.ldt

Eficacia de luminaria : 88 lm/W (A30)
 Distribución de la luz : simétrico con C90-C270
 Ángulo de radiación : -- C0-C180
 58.4° C90
 -- C270

1.1 Relux Demo, Outdoor Floodlight Wall Mo... (!5XA7693F1A1D)

1.1.4 Tabla de luminancia

| | C0 | C15 | C30 | C45 | C60 | C75 | C90 | C105 | C120 | C135 | C150 | C165 |
|-----|-------|---------------|-------|-------|-------|------|-------|-------|---------------|-------|-------|-------|
| 65° | 40733 | 65555 [77701] | 70220 | 41841 | 18126 | 9698 | 18126 | 41841 | 70220 [77701] | 65555 | | |
| 70° | 18546 | 32299 | 40545 | 29560 | 18432 | 7818 | 5764 | 7818 | 18432 | 29560 | 40545 | 32299 |
| 75° | 5882 | 5882 | 14177 | 7729 | 7428 | 6221 | 4374 | 6221 | 7428 | 7729 | 14177 | 5882 |
| 80° | 3203 | 3597 | 4777 | 4440 | 4777 | 4103 | 2922 | 4103 | 4777 | 4440 | 4777 | 3597 |
| 85° | 1904 | 2016 | 2799 | 2687 | 2351 | 1679 | 1344 | 1679 | 2351 | 2687 | 2799 | 2016 |

| | C180 | C195 | C210 | C225 | C240 | C255 | C270 | C285 | C300 | C315 | C330 | C345 |
|-----|-------|-------|-------|------|------|------|------|------|------|------|-------|-------|
| 65° | 40733 | 25539 | 10437 | 5496 | 6396 | 7066 | 6650 | 7066 | 6396 | 5496 | 10437 | 25539 |
| 70° | 18546 | 10956 | 8018 | 5592 | 6249 | 6277 | 5878 | 6277 | 6249 | 5592 | 8018 | 10956 |
| 75° | 5882 | 4675 | 4600 | 4562 | 5392 | 4789 | 4524 | 4789 | 5392 | 4562 | 4600 | 4675 |
| 80° | 3203 | 3035 | 2978 | 3035 | 3484 | 2585 | 2360 | 2585 | 3484 | 3035 | 2978 | 3035 |
| 85° | 1904 | 1679 | 1679 | 1679 | 1568 | 1120 | 1120 | 1120 | 1568 | 1679 | 1679 | 1679 |

Luminancia [cd/m²]

| | |
|---|---|
| Fabricante : Relux Demo | Eficacia de luminaria : 88 lm/W (A30) |
| Número de pedido : !5XA7693F1A1D/ | Distribución de la luz : simétrico con C90-C270 |
| Nombre de la lum. : Outdoor Floodlight Wall Mounted | Ángulo de radiación : -- C0-C180 |
| Luminaire | 58.4° C90 |
| Equipamiento : 1 x LED 3000K / CRI >= 70 200 W / 2 | -- C270 |
| Dimensiones : L 975 mm x B 730 mm x H 450 mm | |
| Nombre de archivo: rlx1372297625.ltd | |

Objeto :
 Instalación :
 Nº del proyecto : Sum central
 Fecha : 19.08.2022



1.1 Relux Demo, Outdoor Floodlight Wall Mo... (!5XA7693F1A1D)

1.1.5 Valoración del deslumbramiento según UGR

| Grados de reflexión | | | | | | | | | | |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Techo | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Paredes | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Suelo | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

| Dimensiones del espacio | | Vista en dirección C0 | | | | | Vista en dirección C90 | | | | |
|-------------------------|-----|-----------------------|------|------|------|------|------------------------|------|------|------|------|
| x | y | | | | | | | | | | |
| 2H | 2H | 27.6 | 29.4 | 27.9 | 29.7 | 30.0 | 14.8 | 16.6 | 15.1 | 16.9 | 17.2 |
| | 3H | 29.0 | 30.6 | 29.4 | 31.0 | 31.3 | 16.8 | 18.4 | 17.2 | 18.8 | 19.1 |
| | 4H | 29.0 | 30.5 | 29.4 | 30.9 | 31.2 | 17.3 | 18.9 | 17.7 | 19.2 | 19.6 |
| | 6H | 29.0 | 30.4 | 29.4 | 30.8 | 31.1 | 17.5 | 18.9 | 17.9 | 19.3 | 19.7 |
| | 8H | 28.9 | 30.3 | 29.3 | 30.7 | 31.1 | 17.5 | 18.9 | 17.9 | 19.2 | 19.6 |
| | 12H | 28.9 | 30.2 | 29.3 | 30.6 | 31.0 | 17.5 | 18.8 | 17.9 | 19.2 | 19.6 |
| 4H | 2H | 29.0 | 30.5 | 29.4 | 30.9 | 31.2 | 15.8 | 17.3 | 16.2 | 17.7 | 18.0 |
| | 3H | 30.2 | 31.5 | 30.6 | 31.9 | 32.3 | 17.9 | 19.2 | 18.3 | 19.6 | 20.0 |
| | 4H | 30.3 | 31.4 | 30.7 | 31.8 | 32.3 | 18.6 | 19.7 | 19.0 | 20.2 | 20.6 |
| | 6H | 30.2 | 31.2 | 30.7 | 31.7 | 32.1 | 18.8 | 19.8 | 19.3 | 20.3 | 20.7 |
| | 8H | 30.2 | 31.2 | 30.7 | 31.6 | 32.1 | 18.8 | 19.8 | 19.3 | 20.2 | 20.7 |
| | 12H | 30.2 | 31.1 | 30.7 | 31.5 | 32.0 | 18.9 | 19.7 | 19.3 | 20.2 | 20.7 |
| 8H | 4H | 30.2 | 31.2 | 30.7 | 31.6 | 32.1 | 18.9 | 19.9 | 19.4 | 20.3 | 20.7 |
| | 6H | 30.2 | 31.0 | 30.7 | 31.4 | 31.9 | 19.2 | 20.0 | 19.7 | 20.4 | 20.9 |
| | 8H | 30.2 | 30.9 | 30.7 | 31.4 | 31.9 | 19.3 | 20.0 | 19.8 | 20.5 | 21.0 |
| | 12H | 30.2 | 30.8 | 30.7 | 31.3 | 31.8 | 19.3 | 19.9 | 19.8 | 20.4 | 20.9 |
| 12H | 4H | 30.2 | 31.1 | 30.7 | 31.5 | 32.0 | 18.9 | 19.8 | 19.4 | 20.2 | 20.7 |
| | 6H | 30.2 | 30.9 | 30.7 | 31.4 | 31.9 | 19.3 | 20.0 | 19.8 | 20.5 | 20.9 |
| | 8H | 30.2 | 30.8 | 30.7 | 31.3 | 31.8 | 19.3 | 19.9 | 19.8 | 20.4 | 20.9 |

Distancia entre las luminarias: 0.25

Debido a la falta de propiedades de simetría, los valores sólo son válidos desde el punto de vista del observador

| | | | |
|--------------------|---------------------------------------|------------------------|--------------------------|
| Fabricante | : Relux Demo | Eficacia de luminaria | : 88 lm/W (A30) |
| Número de pedido | : !5XA7693F1A1D/ | Distribución de la luz | : simétrico con C90-C270 |
| Nombre de la lum. | : Outdoor Floodlight Wall Mounted | Ángulo de radiación | : -- C0-C180 |
| | Luminaire | | 58.4° C90 |
| Equipamiento | : 1 x LED 3000K / CRI >= 70 200 W / 2 | | -- C270 |
| Dimensiones | : L 975 mm x B 730 mm x H 450 mm | | |
| Nombre de archivo: | rlx1372297625.ltd | | |

Objeto :
Instalación :
Nº del proyecto : Sum central
Fecha : 19.08.2022

RELUX[®]

1.1 Relux Demo, Outdoor Floodlight Wall Mo... (!5XA7693F1A1D)

1.1.6 Diagrama cónico

La curva CDL no es apropiada para la representación en cono.

Objeto :
Instalación :
Nº del proyecto : Sum central
Fecha : 19.08.2022




2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

Datos de productos:

Tipo Cant. Producto

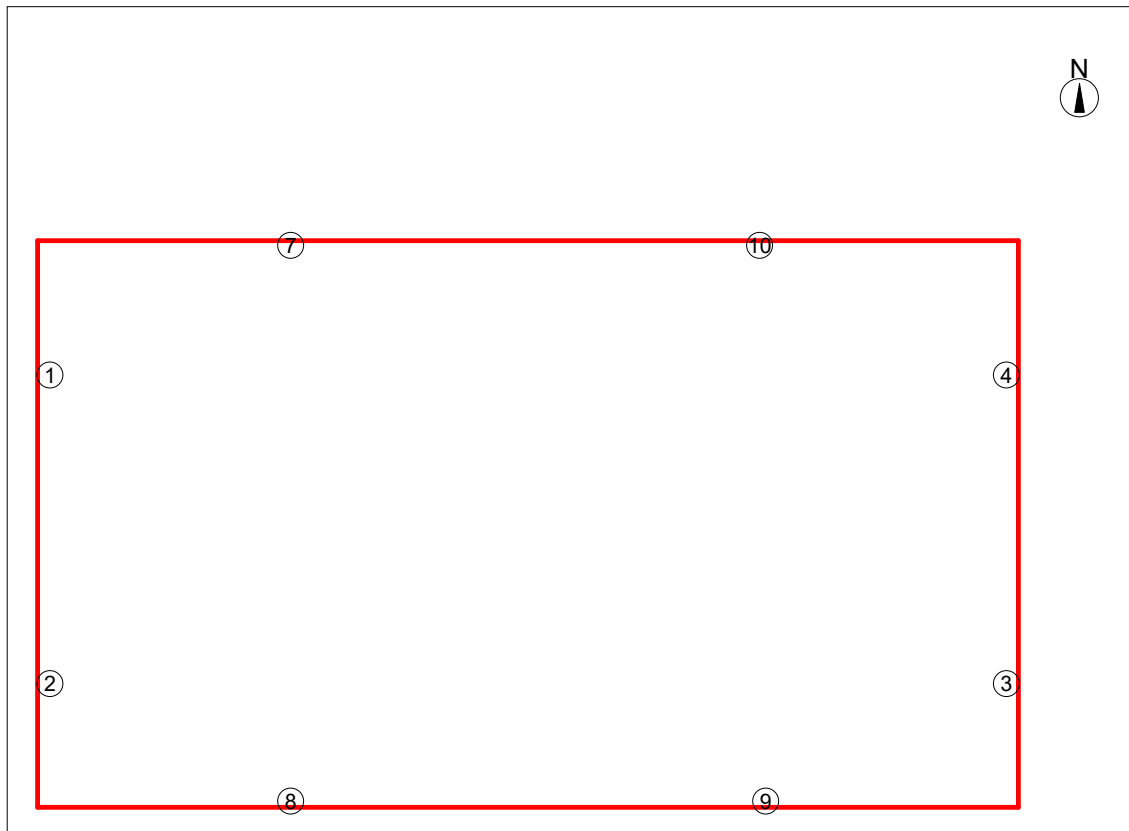
| | | |
|---|---|---|
| 1 | 8 | Relux Demo |
|  | | Nº de artículo : !5XA7693F1A1D/ Nombre de la lum. : Outdoor Floodlight Wall Mounted Luminaire Equipamiento : 1 x LED 3000K / CRI >= 70 200 W / 22000 lm |

2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

Piso con luminaria y posiciones del sensor:



| | Posición | | | za | Rotación | |
|---|----------------------|------|------|--------|----------|------|
| | x[m] | y[m] | z[m] | | xa | ya |
| Relux Demo Outdoor Floodlight Wall Mounted Luminaire !5XA7693F1A1D | | | | | | |
| 1 | 0.20 | 7.00 | 8.30 | 270.0° | 15.0° | 0.0° |
| Alineacin | Coordenadas objetivo | | | | Rotación | |
| 1 !5XA7693F1A1D | 15.89 | 7.00 | 3.16 | 270.0° | 15.0° | 0.0° |
| 2 | 0.20 | 2.00 | 8.30 | 270.0° | 15.0° | 0.0° |
| Alineacin | Coordenadas objetivo | | | | Rotación | |
| 1 !5XA7693F1A1D | 15.89 | 2.00 | 3.16 | 270.0° | 15.0° | 0.0° |
| 3 | 15.70 | 2.00 | 8.30 | 90.0° | 15.0° | 0.0° |
| Alineacin | Coordenadas objetivo | | | | Rotación | |
| 1 !5XA7693F1A1D | 0.00 | 2.00 | 3.15 | 90.0° | 15.0° | 0.0° |
| 4 | 15.70 | 7.00 | 8.30 | 90.0° | 15.0° | 0.0° |
| Alineacin | Coordenadas objetivo | | | | Rotación | |
| 1 !5XA7693F1A1D | 0.00 | 7.00 | 3.15 | 90.0° | 15.0° | 0.0° |
| 7 | 4.10 | 9.10 | 8.30 | 180.0° | 15.0° | 0.0° |
| Alineacin | Coordenadas objetivo | | | | Rotación | |
| 1 !5XA7693F1A1D | 4.10 | 0.00 | 5.56 | 180.0° | 15.0° | 0.0° |
| 8 | 4.10 | 0.10 | 8.30 | 0.0° | 15.0° | 0.0° |
| Alineacin | Coordenadas objetivo | | | | Rotación | |
| 1 !5XA7693F1A1D | 4.10 | 9.18 | 5.56 | 0.0° | 15.0° | 0.0° |

Objeto :
 Instalación :
 N° del proyecto : Sum central
 Fecha : 19.08.2022



2 Espacio 1

2.1 Descripción Espacio 1

2.1.1 Elementos de luminarias y del espacio

| | | | | | | | |
|----|-----------------|----------------------|------|------|----------|-------|------|
| 9 | | 11.80 | 0.10 | 8.30 | 0.0° | 15.0° | 0.0° |
| | Alineacin | Coordenadas objetivo | | | Rotación | | |
| | 1 !5XA7693F1A1D | 11.80 | 9.18 | 5.56 | 0.0° | 15.0° | 0.0° |
| 10 | | 11.70 | 9.10 | 8.30 | 180.0° | 15.0° | 0.0° |
| | Alineacin | Coordenadas objetivo | | | Rotación | | |
| | 1 !5XA7693F1A1D | 11.70 | 0.00 | 5.56 | 180.0° | 15.0° | 0.0° |

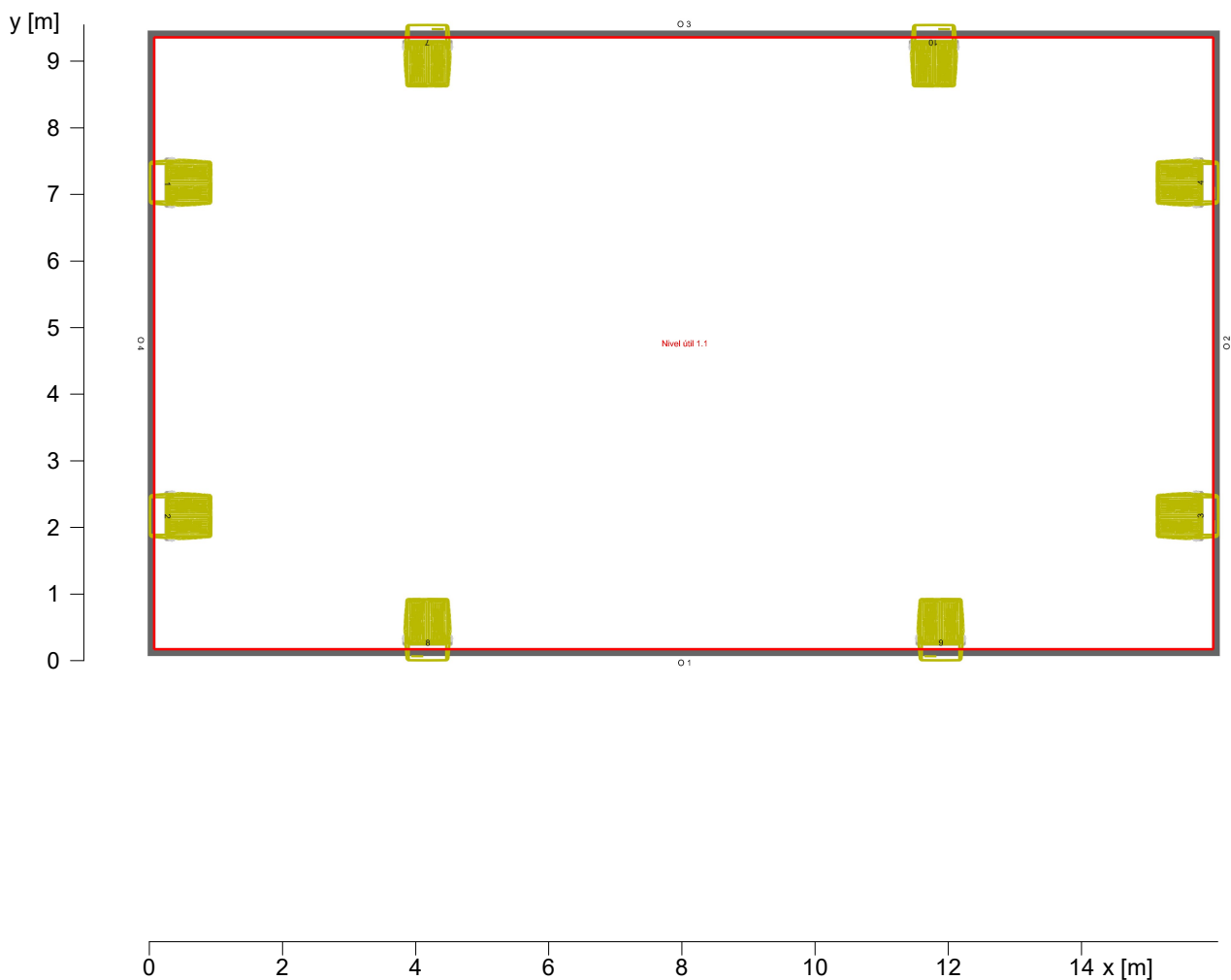
Elementos de diseño

Superficie de medición

| N° | xm[m] | ym[m] | zm[m] | Longitud | Anchura | Ángulo de rotación | | |
|---------------|-------|-------|-------|----------|---------|--------------------|-------|---------|
| | | | | | | Eje-z | Eje-L | Eje-Q |
| Niv. útil 1.1 | 0.00 | 0.00 | 0.00 | 15.89 | 9.18 | 0.00 | 0.00 | 0.00 |
| M 1.1 (C | 15.89 | 0.00 | 0.00 | 15.89 | 0.00 | 0.00 | 90.00 | -180.00 |
| M 1.2 (C | 15.89 | 9.18 | 0.00 | 0.00 | 9.18 | 0.00 | 90.00 | -90.00 |
| M 1.3 (O | 0.00 | 9.18 | 0.00 | 15.89 | 0.00 | 0.00 | 90.00 | -0.00 |
| M 1.4 (O | 0.00 | 0.00 | 0.00 | 0.00 | 9.18 | 0.00 | 90.00 | 90.00 |
| M 1.5 (D | 0.00 | 9.18 | 9.00 | 15.89 | 9.18 | 180.00 | 0.00 | 180.00 |

2.1 Descripción Espacio 1

2.1.2 Planta horizontal



Datos del espacio:

W1 : 15.89
 W2 : 9.18
 W3 : 15.89
 W4 : 9.18
 W5 : ----
 W6 : ----
 Suelo: ----
 Techo: ----
 Altura del espacio [m]:
 Altura del nivel útil [m]:
 Altura del nivel de luminarias [m]:

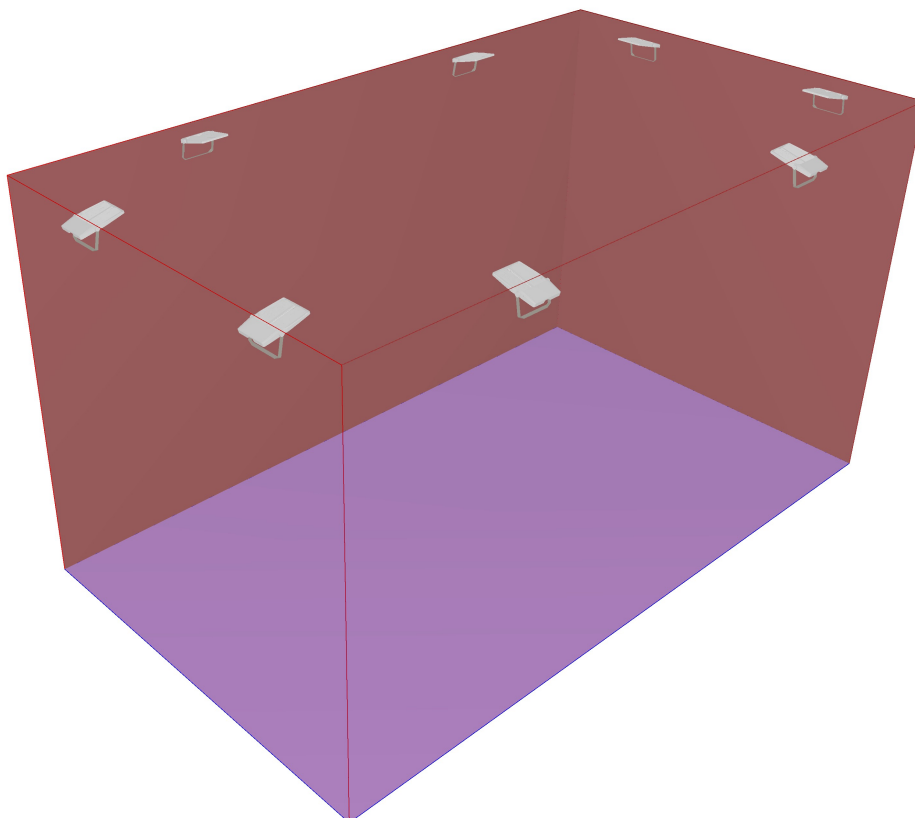
Grados de reflexión:

21.6 %
 21.6 %
 21.6 %
 21.6 %

 85.8 %
 0.0 %

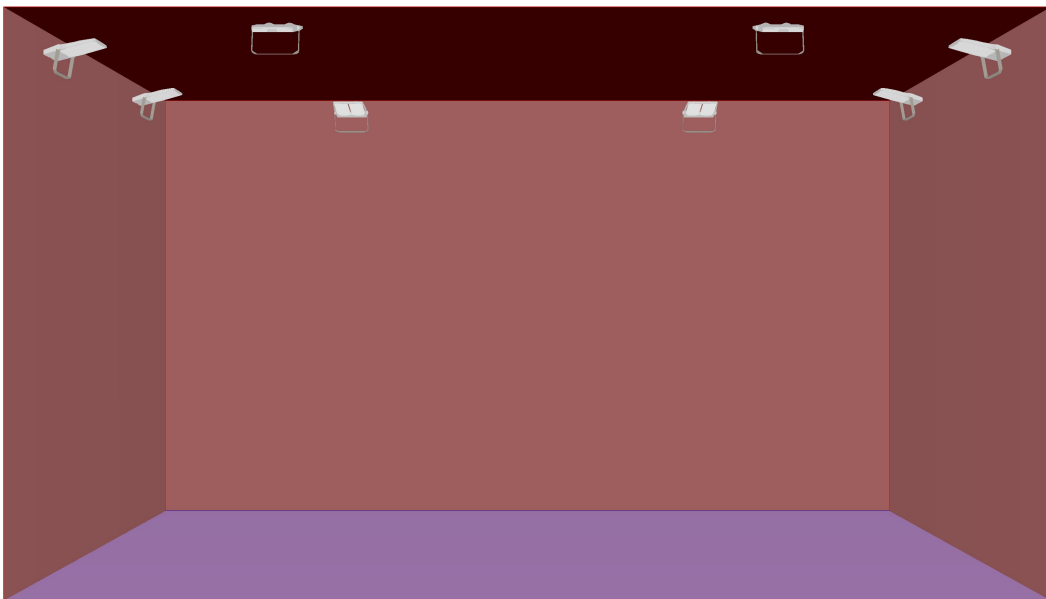
2.1 Descripción Espacio 1

2.1.3 Representación-3D, Vista 1



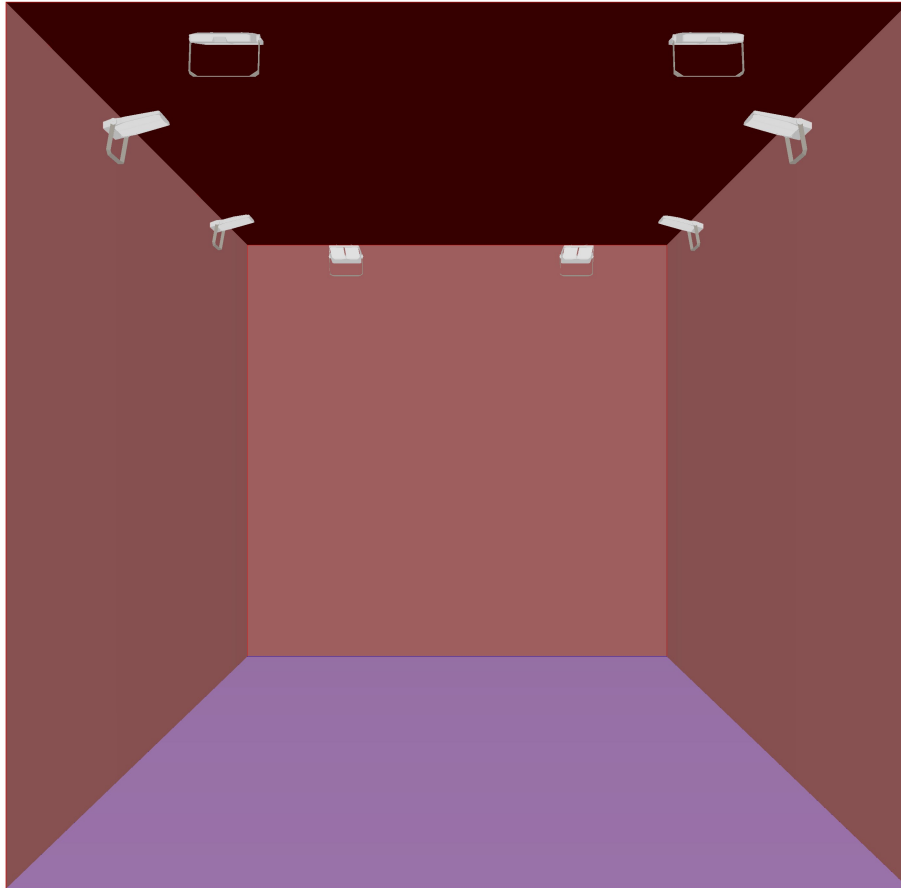
2.1 Descripción Espacio 1

2.1.4 Representación-3D, Vista desde delante



2.1 Descripción Espacio 1

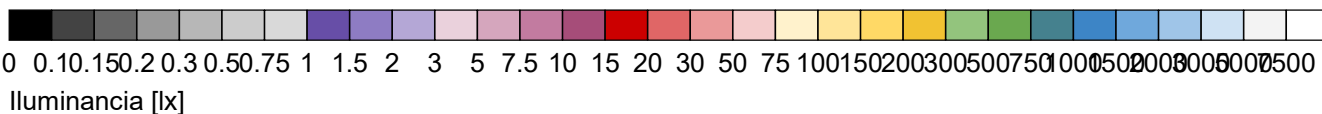
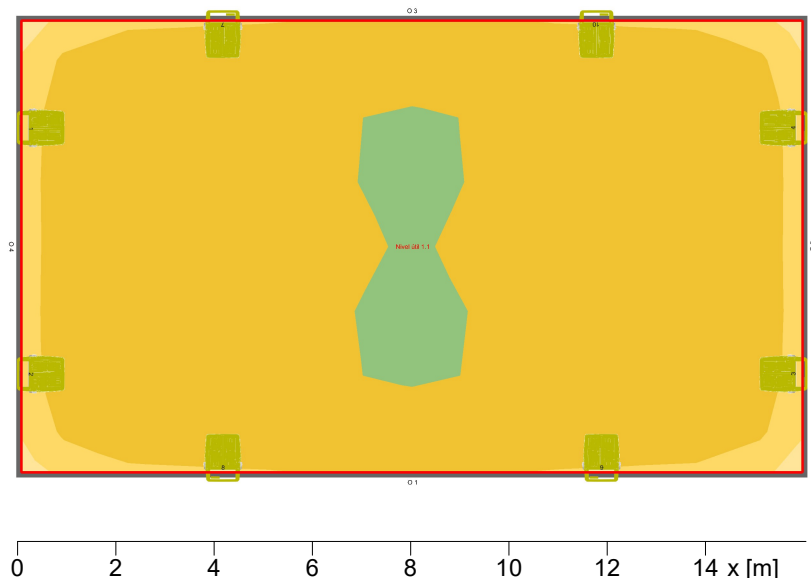
2.1.5 Representación-3D, Vista desde la izquierda



2 Espacio 1

2.2 Resumen, Espacio 1

2.2.1 Resumen de los resultados, Superficie de evaluación 1



General

| | |
|--|---|
| Algoritmo de cálculo utilizada | Parte indirecta media |
| Altura del nivel de luminarias | 8.71 m |
| Factor de mant. | 0.80 |
| Flujo luminoso total de lámparas | 176000.00 lm |
| Potencia total | 2000.0 W |
| Potencia total por superficie (145.87 m ²) | 13.71 W/m ² (5.53 W/m ² /100lx) |

Superficie de evaluación 1 Nivel útil 1.1

| | |
|-----------------|--------|
| Em | 248 lx |
| Emin | 187 lx |
| Emin/Em (Uo) | 0.75 |
| Emin/Emax (Ud) | 0.64 |
| UGR (1.2H 2.1H) | <=30.1 |
| Posición | 0.00 m |

| Superficies principales | Em | Uo |
|-------------------------|--------|------|
| M 1.5 (Techo) | 115 lx | 0.78 |
| M 1.1 (Pared) | 338 lx | 0.24 |
| M 1.2 (Pared) | 307 lx | 0.20 |
| M 1.3 (Pared) | 336 lx | 0.24 |
| M 1.4 (Pared) | 307 lx | 0.20 |

Objeto :
Instalación :
Nº del proyecto : Sum central
Fecha : 19.08.2022


RELUX[®]

2 Espacio 1

2.2 Resumen, Espacio 1

2.2.1 Resumen de los resultados, Superficie de evaluación 1

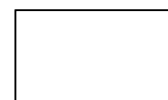
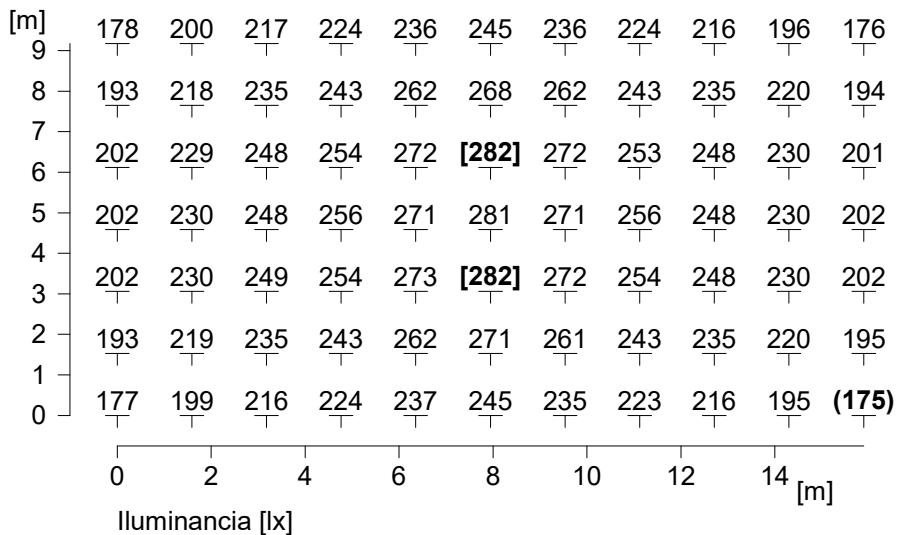
Tipo Cant. Producto

| | | |
|---|---|---|
| 1 | 8 | Relux Demo |
|  | | Nº de artículo : !5XA7693F1A1D/ Nombre de la lum. : Outdoor Floodlight Wall Mounted Luminaire Equipamiento : 1 x LED 3000K / CRI >= 70 200 W / 22000 lm |

2 Espacio 1

2.3 Resultados del cálculo, Espacio 1

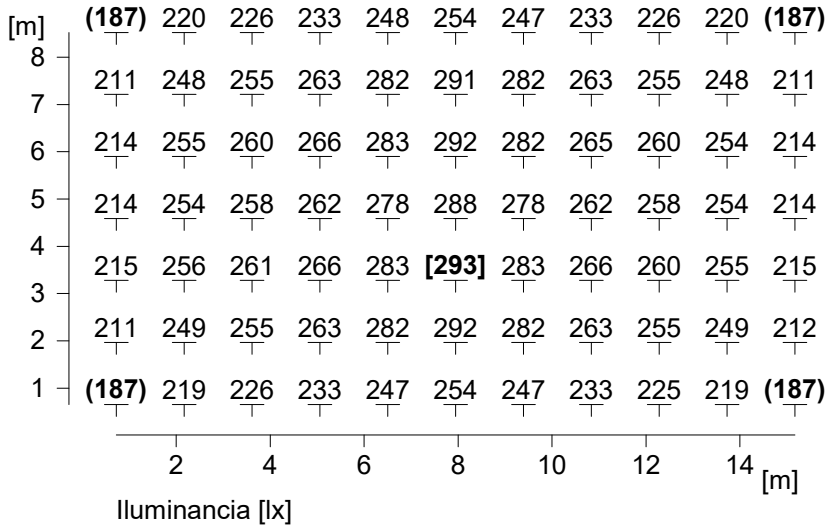
2.3.1 Tabla, Suelo (E)



| | | |
|--------------------|-----------|-------------------|
| Iluminancia media | Em | : 233 lx |
| Iluminancia mínima | Emin | : 175 lx |
| Iluminancia máxima | Emax | : 282 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.33 (0.75) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.61 (0.62) |

2.3 Resultados del cálculo, Espacio 1

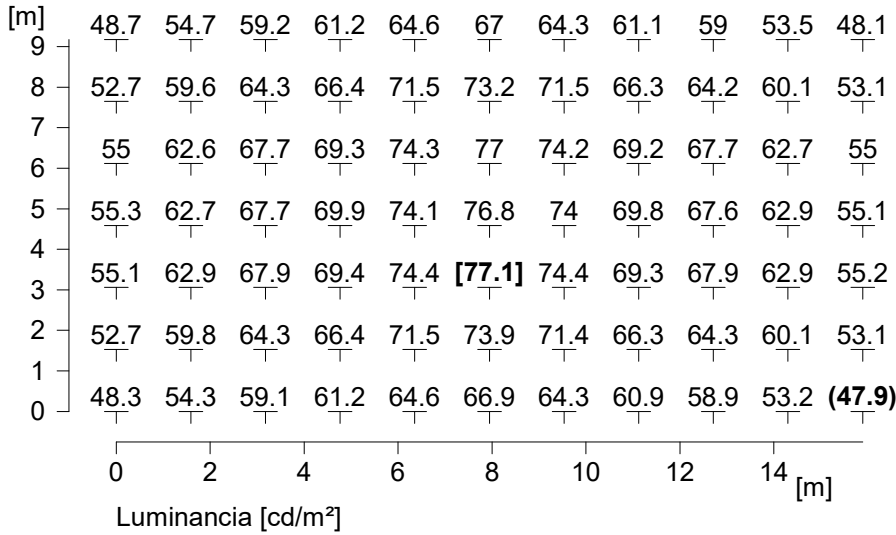
2.3.2 Tabla, Nivel útil 1.1 (E)



| | | |
|--------------------------------|-----------|-------------------|
| Altura del nivel de referencia | : | 0.00 m |
| Iluminancia media | Em | : 248 lx |
| Iluminancia mínima | Emin | : 187 lx |
| Iluminancia máxima | Emax | : 293 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.33 (0.75) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.57 (0.64) |

2.3 Resultados del cálculo, Espacio 1

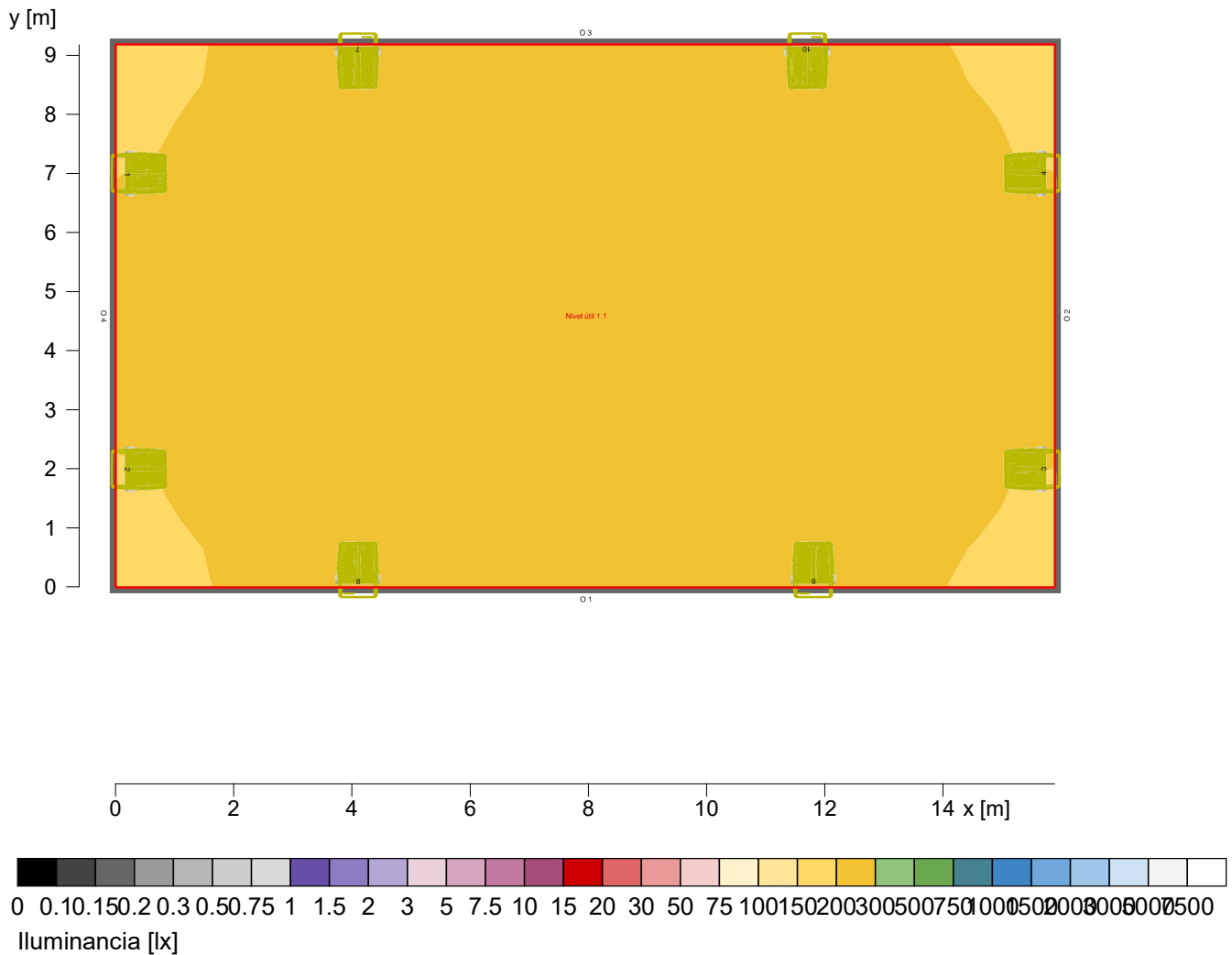
2.3.3 Tabla, Suelo (L)



Luminancia media Lm : 63.6 cd/m²
 Luminancia mínima Lm : 47.9 cd/m²
 Luminancia máxima Lm : 77.1 cd/m²

2.3 Resultados del cálculo, Espacio 1

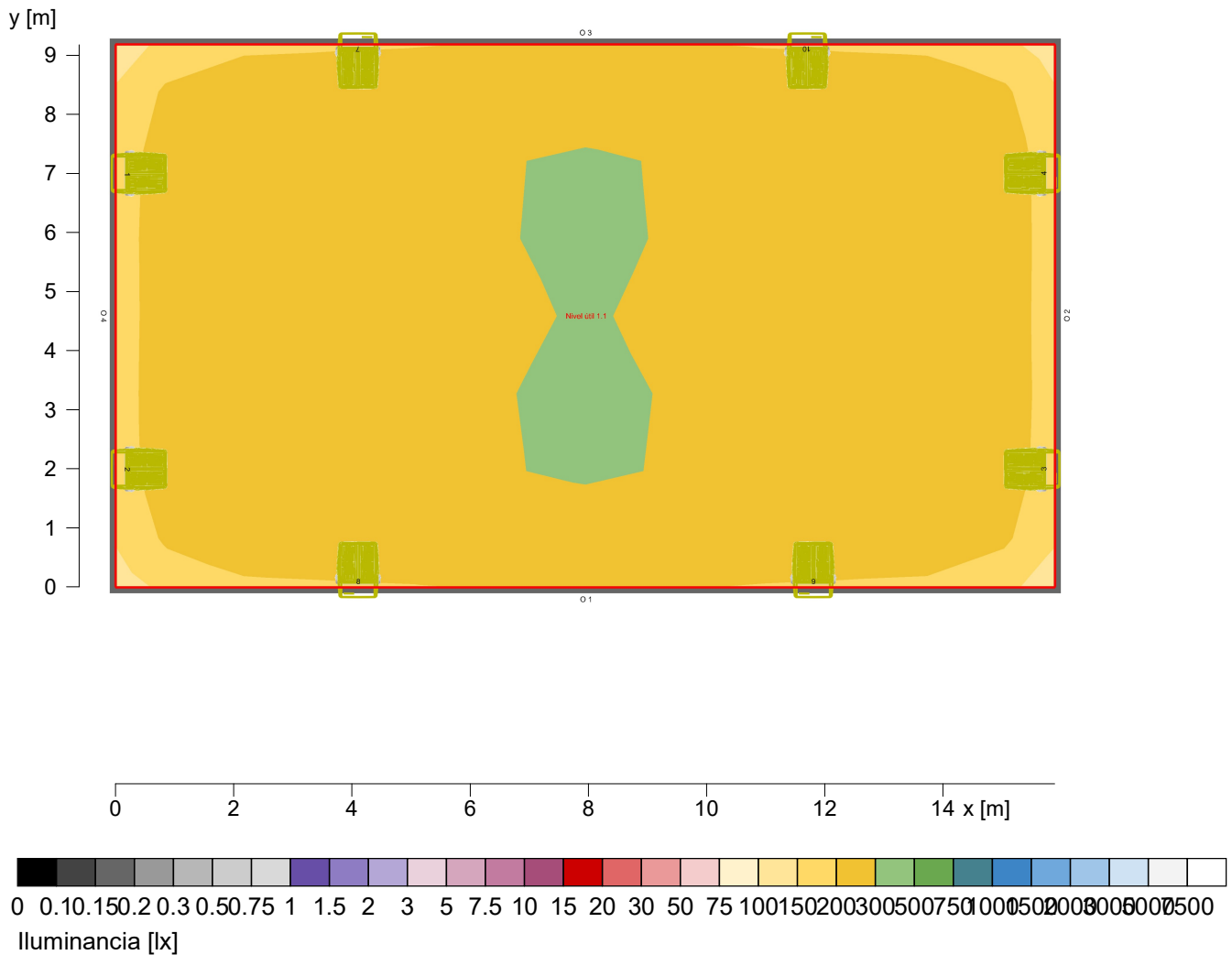
2.3.4 Colores falsos, Suelo (E)



| | | |
|--------------------|-----------|-------------------|
| Iluminancia media | Em | : 233 lx |
| Iluminancia mínima | Emin | : 175 lx |
| Iluminancia máxima | Emax | : 282 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.33 (0.75) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.61 (0.62) |

2.3 Resultados del cálculo, Espacio 1

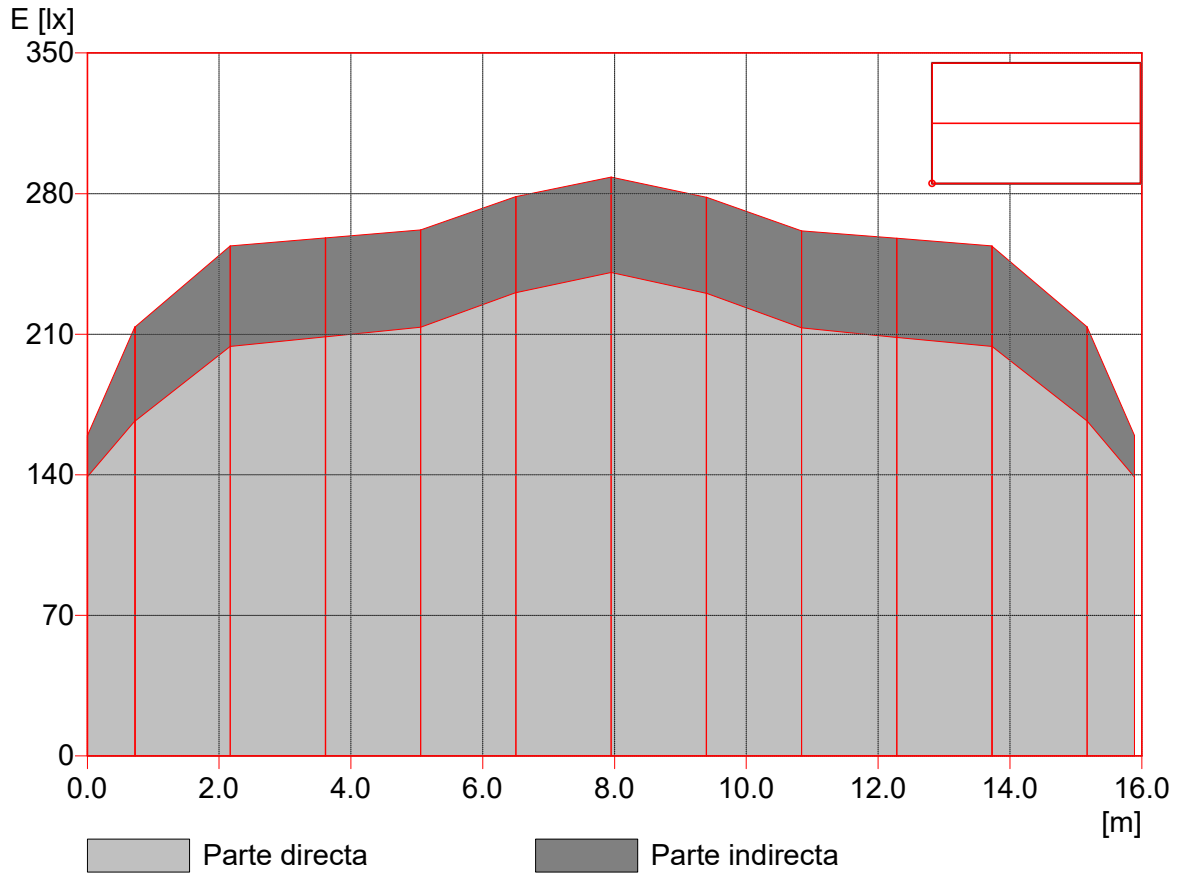
2.3.5 Colores falsos, Nivel útil 1.1 (E)



| | | |
|--------------------------------|-----------|-------------------|
| Altura del nivel de referencia | : | 0.00 m |
| Iluminancia media | Em | : 248 lx |
| Iluminancia mínima | Emin | : 187 lx |
| Iluminancia máxima | Emax | : 293 lx: |
| Uniformidad Uo | Emin/Em | : 1 : 1.33 (0.75) |
| Uniformidad Ud | Emin/Emax | : 1 : 1.57 (0.64) |

2.3 Resultados del cálculo, Espacio 1

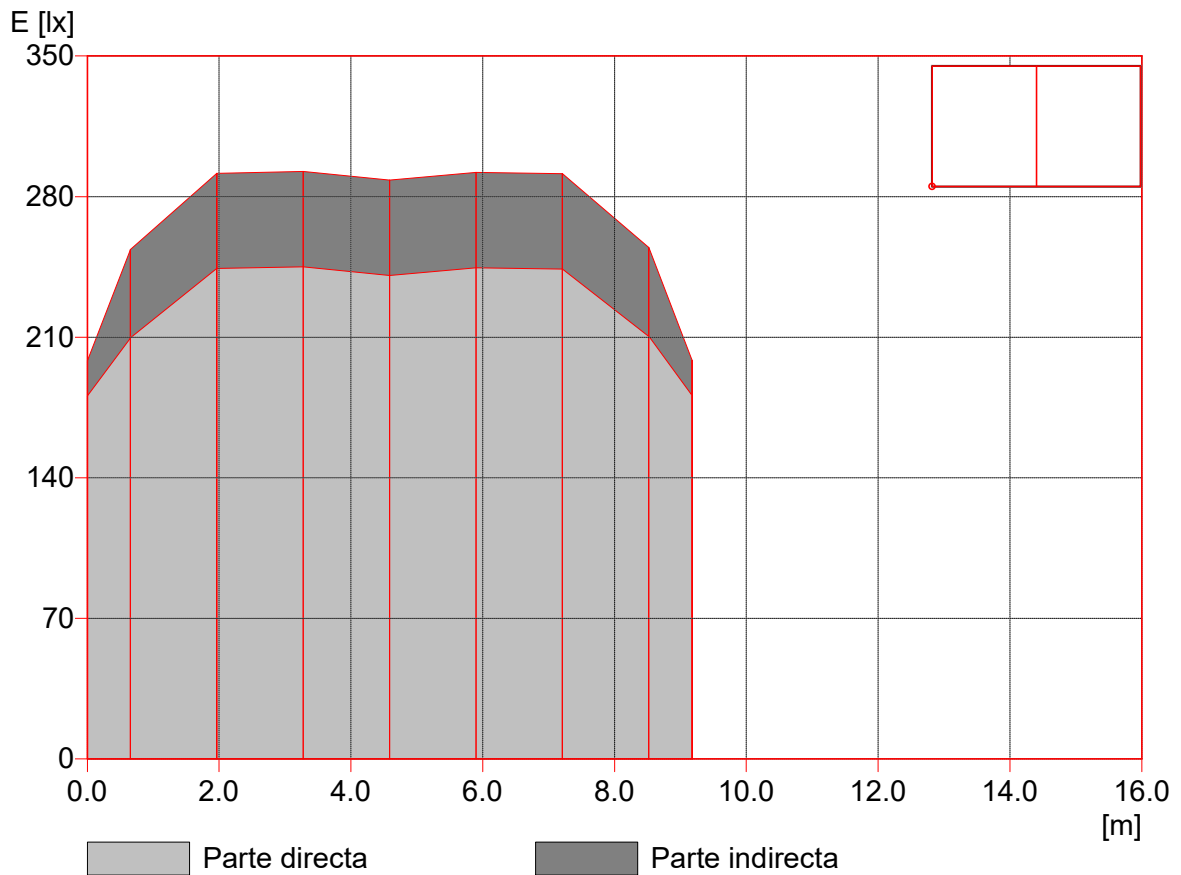
2.3.6 Sección longitudinal, Nivel útil 1.1 (E)



Sección longitudinal en y = 4.59 m

2.3 Resultados del cálculo, Espacio 1

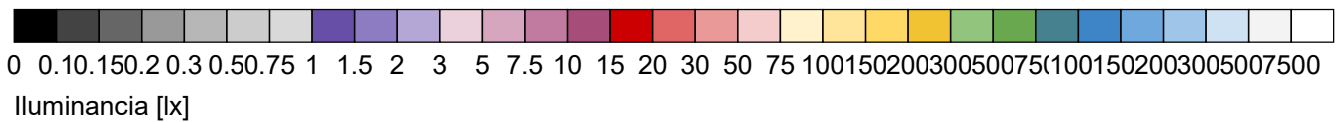
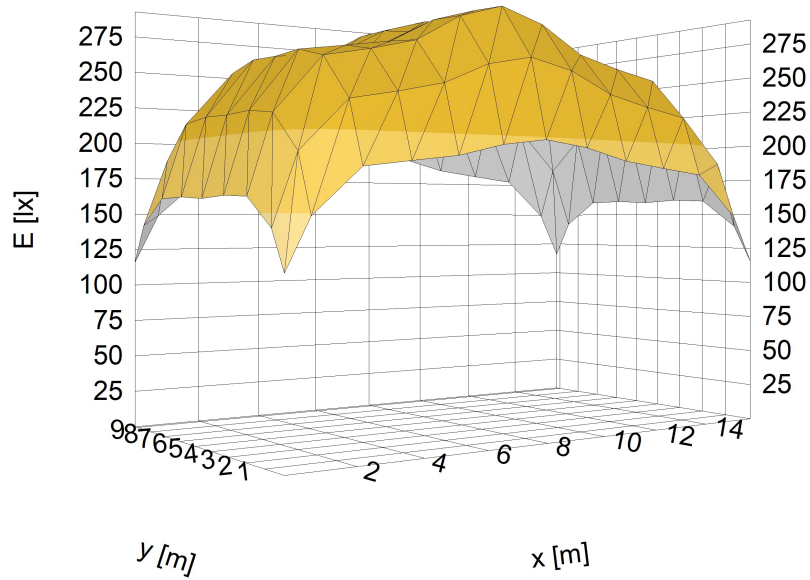
2.3.7 Sección transversal, Nivel útil 1.1 (E)



Sección transversal en x = 7.95 m

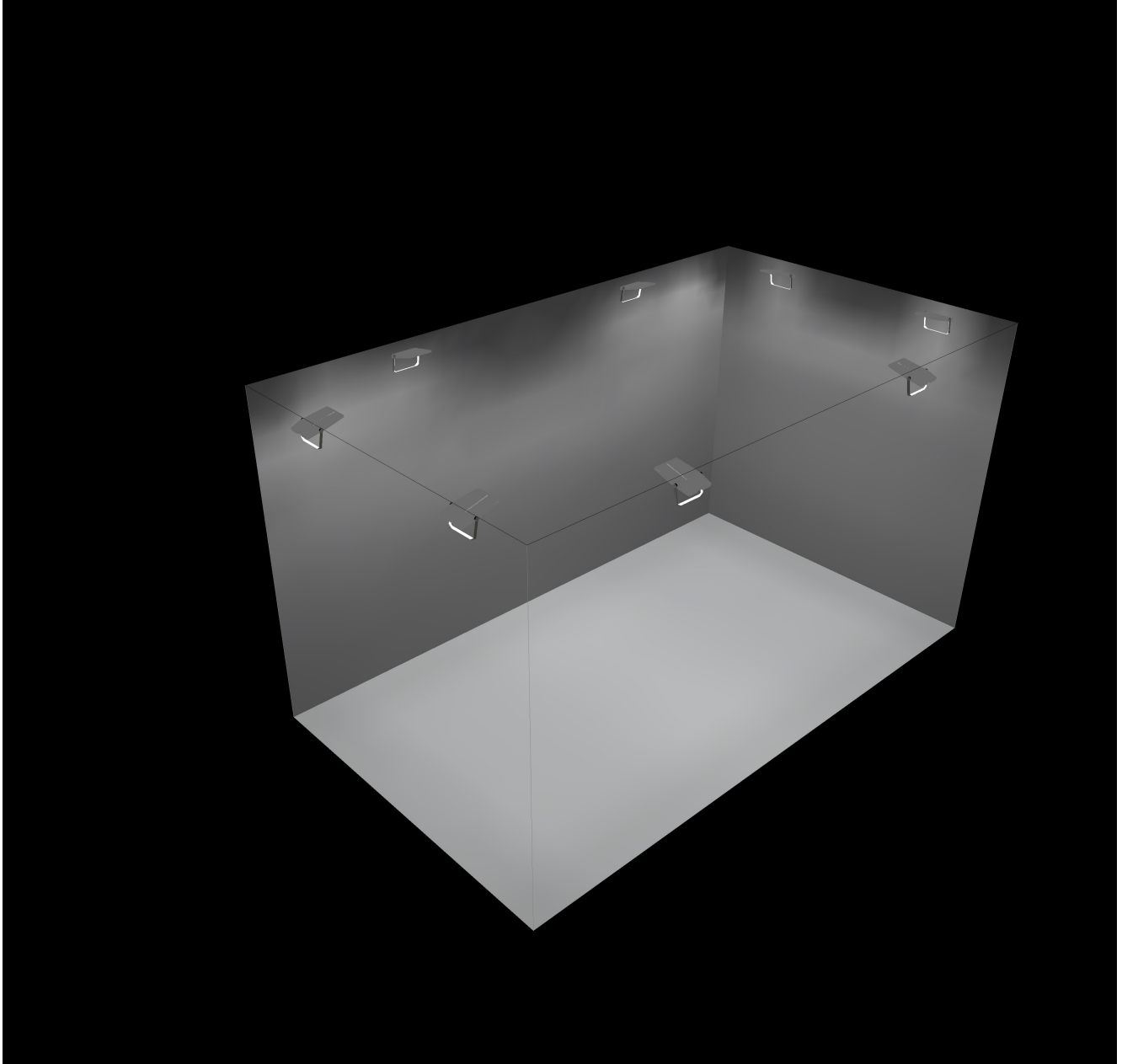
2.3 Resultados del cálculo, Espacio 1

2.3.8 Relieve 3D, Nivel útil 1.1 (E)



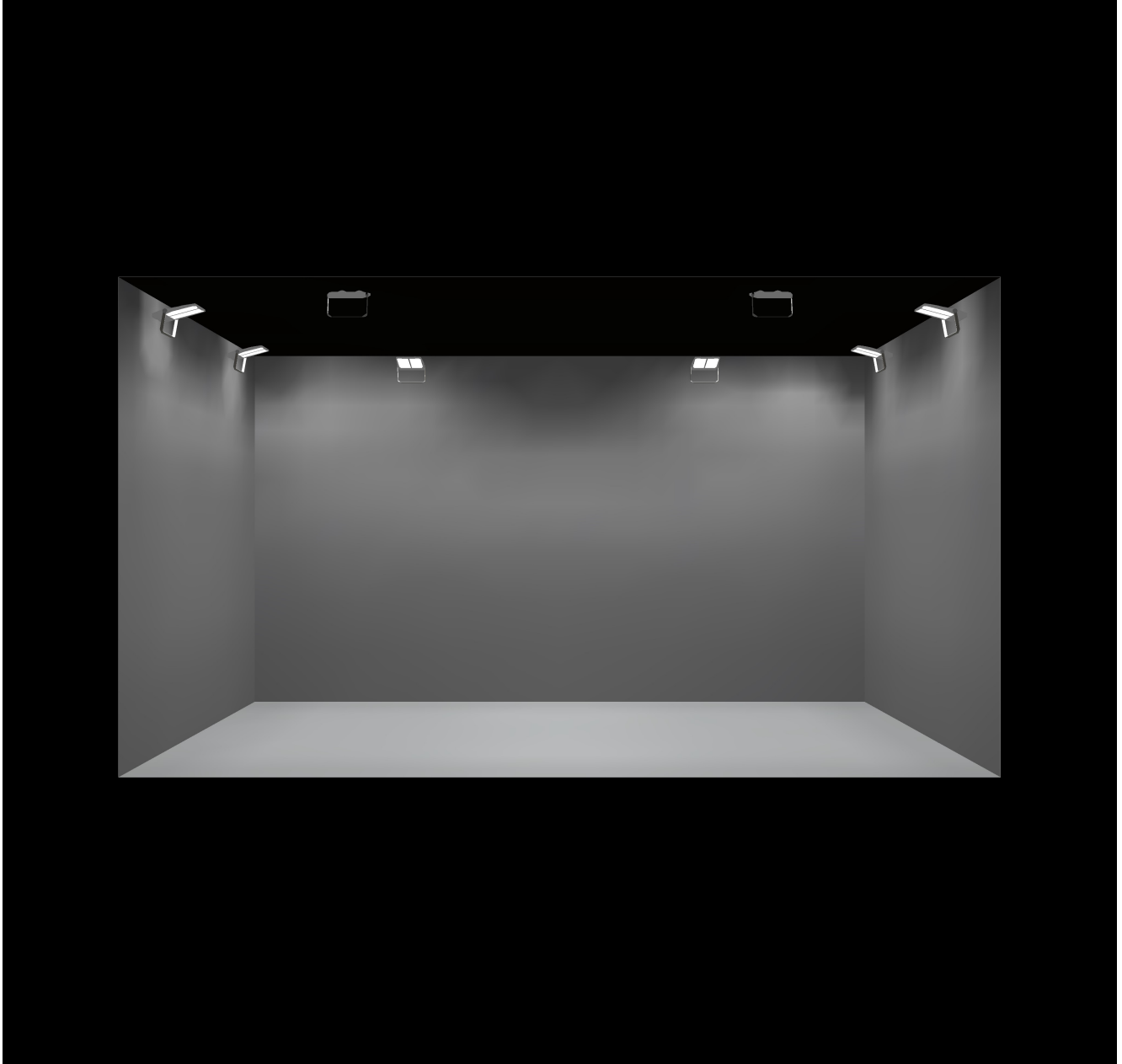
2.3 Resultados del cálculo, Espacio 1

2.3.9 Luminancia-3D, Vista 1



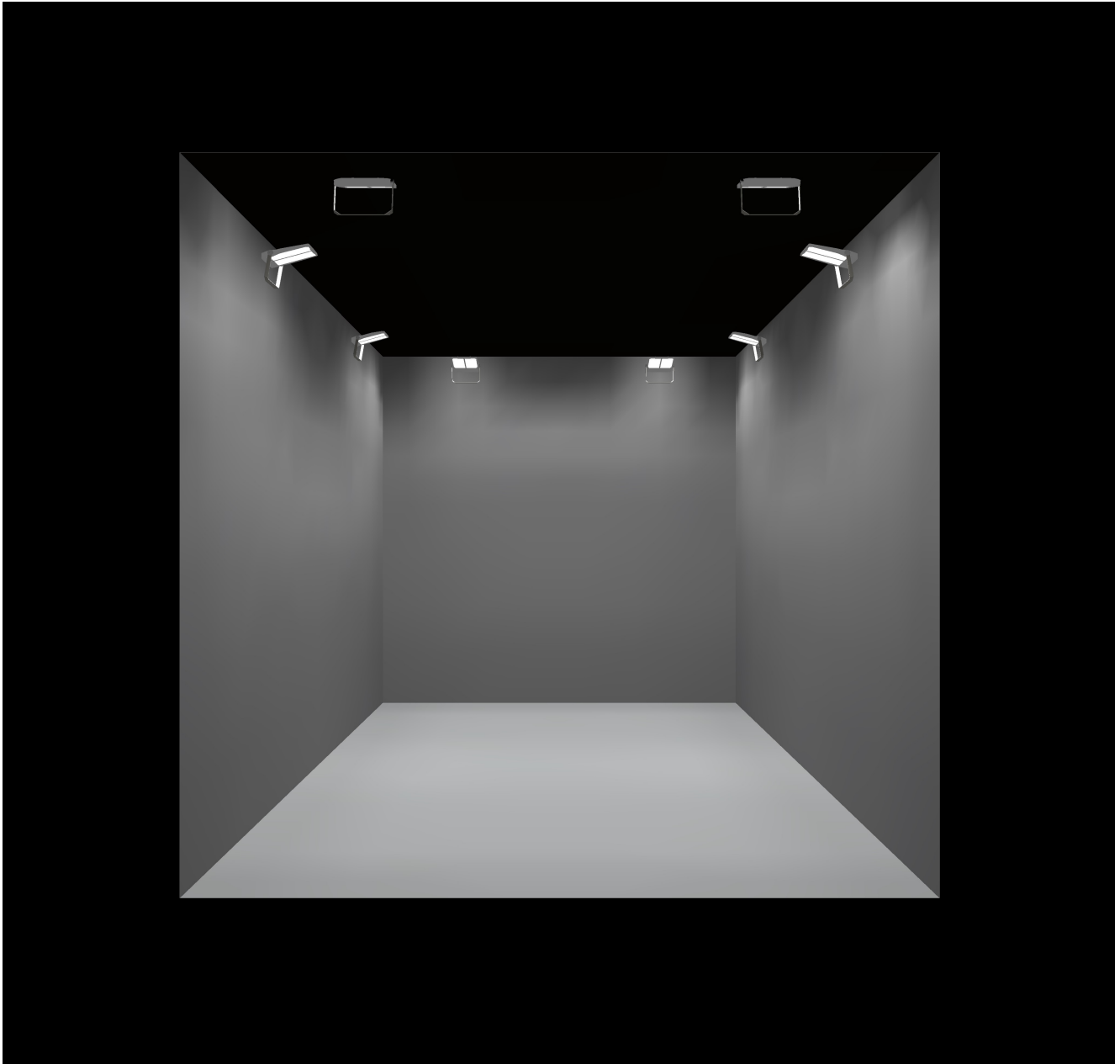
2.3 Resultados del cálculo, Espacio 1

2.3.10 Luminancia-3D, Vista desde delante



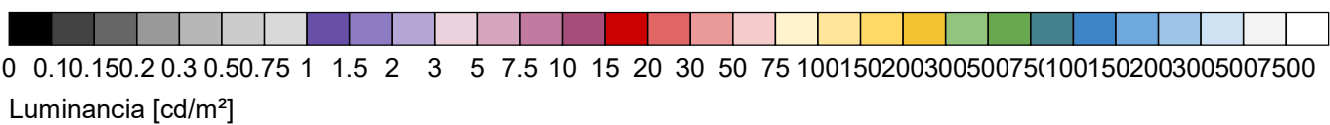
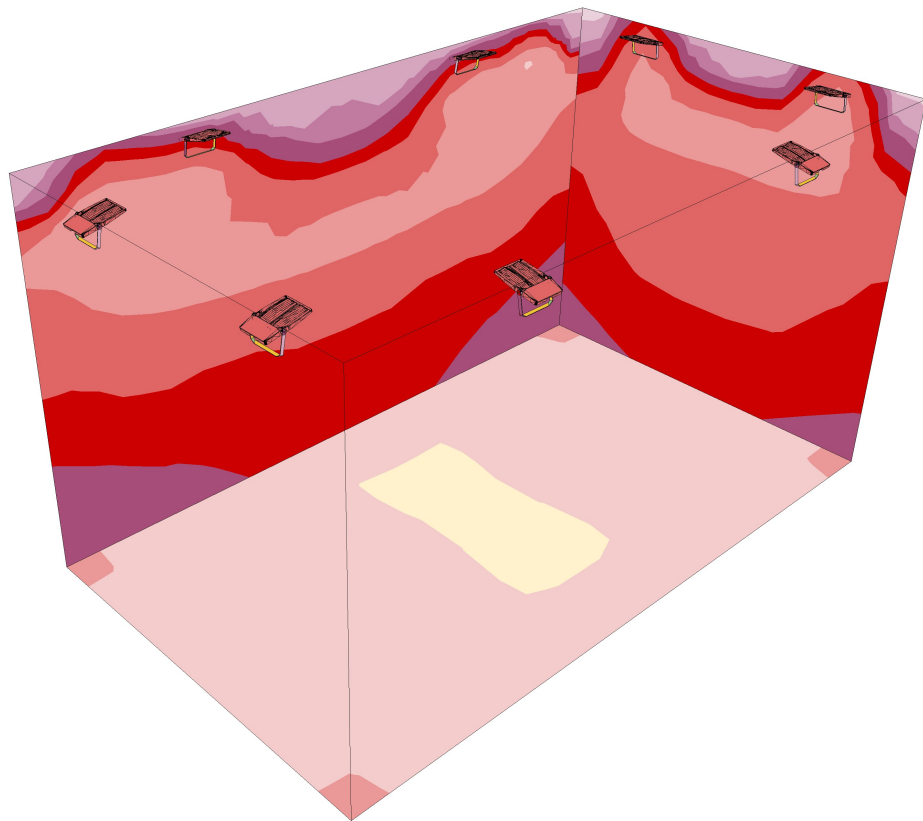
2.3 Resultados del cálculo, Espacio 1

2.3.11 Luminancia-3D, Vista desde la izquierda



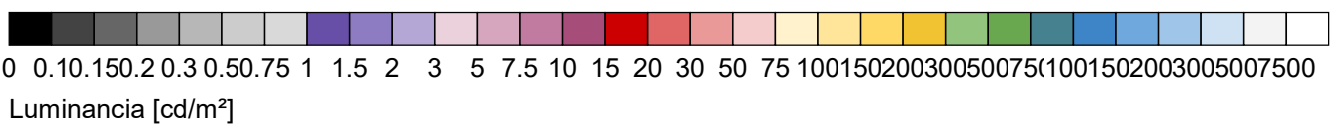
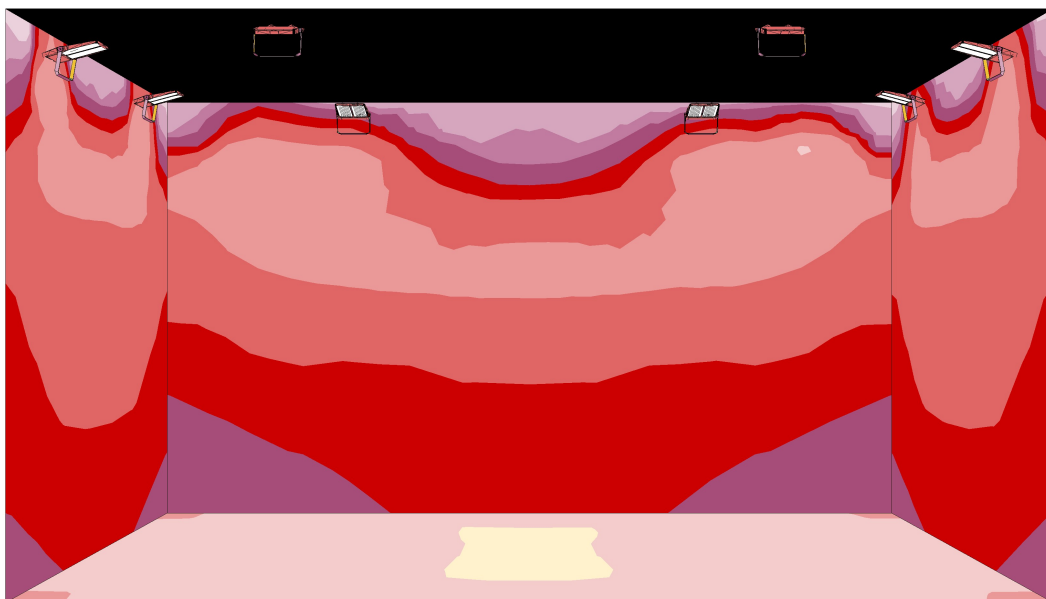
2.3 Resultados del cálculo, Espacio 1

2.3.12 Colores falsos-3D, Vista 1 (L)



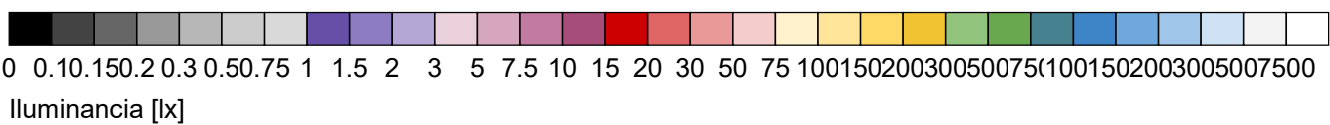
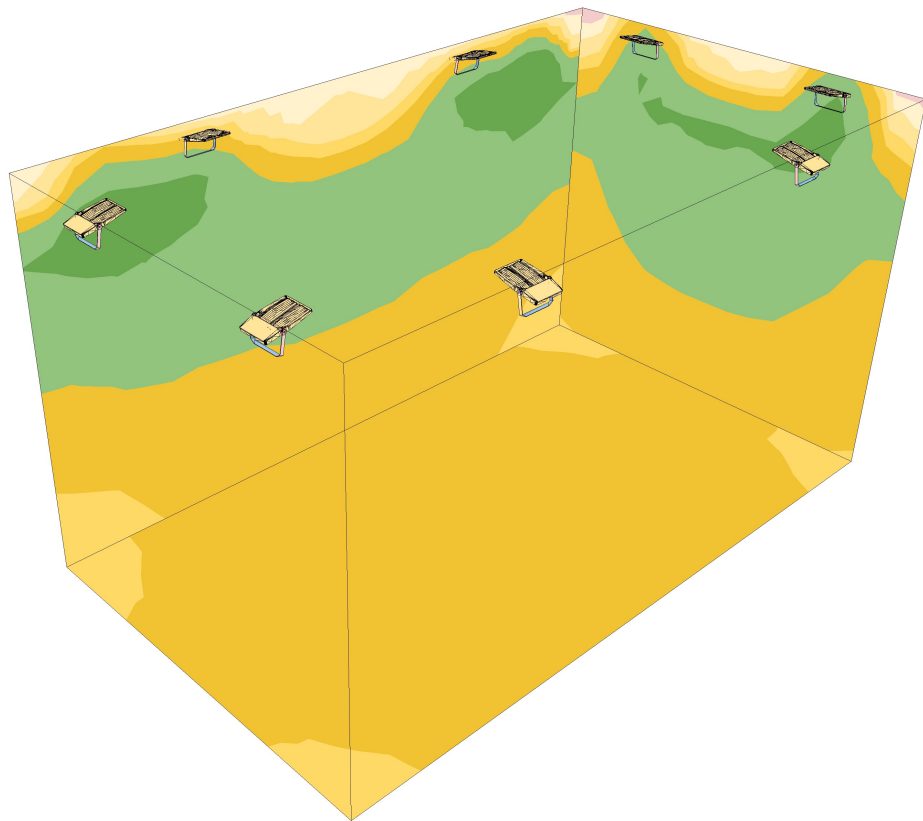
2.3 Resultados del cálculo, Espacio 1

2.3.13 Colores falsos-3D, Vista desde delante (L)



2.3 Resultados del cálculo, Espacio 1

2.3.15 Colores falsos-3D, Vista 1 (E)



2.3 Resultados del cálculo, Espacio 1

2.3.16 Colores falsos-3D, Vista desde delante (E)

