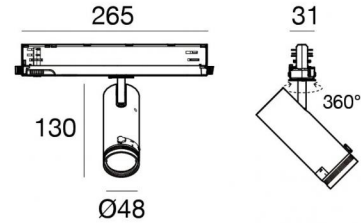




Proyectores | 176-264 V  
1 arrayLED 13 W DC - 15.5 W AC | CRI 90  
**81987W85**



| Datos técnicos  |                   |
|---|-------------------|
| Tipo  | Carril            |
| Posición de instalación                                   | Techo             |
| Ambiente de instalación                                   | Interiores        |
| Fuente de luz   | LED               |
| Circuit structure   | arrayLED          |
| Óptica  | Adjustable Focus  |
| Light emission direction                                  | frontal           |
| Potencia nominal  | 13 W DC           |
| Poder total   | 15.5 W            |
| Flujo luminoso (fuente)                                   | 1771 lm           |
| Tensión nominal de entrada                                | 220 - 240 V AC    |
| Rango de voltaje de entrada                               | 176 - 264 V AC    |
| Frequency   | 50 - 60 Hz        |
| CCT / Tone  | 3000 K            |
| Índice de rendimientos cromático                          | 90 Ra             |
| C.C. / C.V.   | AC                |
| Clase de aislamiento                                      | 2                 |
| IP  | IP20              |
| Test del hilo incandescente                               | 850°              |
| Montaje directo sobre superficies normalmente inflamables | Sí                |
| CE  | Sí                |
| Driver incluido.  | driver            |
| Artículo regulable  | DALI-2 - PUSH DIM |
| Orientabilidad  | Orientabile       |
| ángulo total (plano vertical)                             | 90 °              |
| ángulo total (plano horizontal)                           | 360 °             |
| Basculación   | No                |
| Practicabilidad   | No                |
| Transitabilidad   | No                |
| Cable incluido.   | No                |
| Resinado  | No                |
| Tipología de emisión luminosa                             | Una emisión       |
| Peso neto   | 0.390 Kg          |
| Protección descargas electrostáticas                      | Sí                |
| Protección contra sobretensiones                          | 2 KV              |
| Tecnología óptica   | Anti - Glare      |

| Acabado cuerpo |                                |
|----------------|--------------------------------|
| Material       | Aluminio fundido EN AB - 46100 |
| Color          | Blanco                         |
| Elaboración    | Recubrimiento en polvo         |



Proyectores | 176-264 V | 1 arrayLED 13 W DC - 15.5 W AC | CRI 90 | Ángulo de apertura máximo | 81987W85

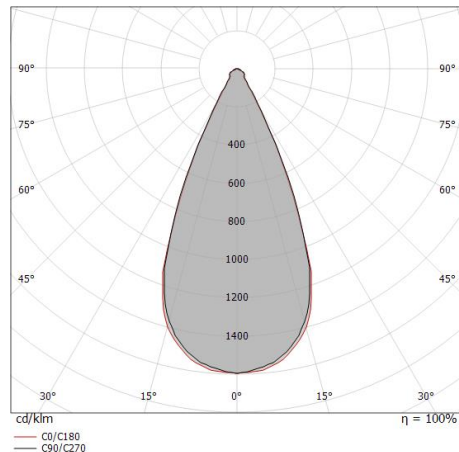
Single emission projectors for indoor application. The warm white LED light source with a adjustable focus light distribution is composed of 1 arrayed LEDs with CCT of 3000 K and a CRI 90; the source luminous flux is 1771 lm, with a 136.2 lm/W nominal luminous efficacy.

The device body is made of die-cast aluminium en ab - 46100 and features a white finish, processed by means of powder coating. The ingress protection degree is IP20; the total weight is of 0.390 kg.

The total absorbed power is 15.5 W.

The device features protection class II and can be ceiling-mounted.

Compliant with the EN 60598-1 standard and its specific provisions.



| Distance [m] | Cone diameter [m] | E(0°) | E(C90) | E(C0) | Illuminance [lx] |
|--------------|-------------------|-------|--------|-------|------------------|
| 0.5          | 0.43              | 3045  | 1184   | 1188  | 3045             |
| 1.0          | 0.86              | 761   | 296    | 297   | 761              |
| 1.5          | 1.29              | 338   | 132    | 132   | 338              |
| 2.0          | 1.72              | 190   | 74     | 74    | 190              |
| 2.5          | 2.15              | 122   | 47     | 48    | 122              |
| 3.0          | 2.58              | 85    | 33     | 33    | 85               |

Distance [m] Cone diameter [m] Illuminance [lx]

— C0/C180 (Half-peak divergence: 46.2°)  
— C90/C270 (Half-peak divergence: 46.6°)

## Clase de eficiencia energética

Este producto contiene una fuente de luz de clase de eficiencia energética E.

## Características Luminotécnicas

|   |                |
|---|----------------|
| Light Output Ratio (LOR)                      | 26 %           |
| Flujo luminoso (fuente)                       | 1771 lm        |
| Flujo luminoso de luminaria                   | 478 lm         |
| Consumption                                   | 15.5 W         |
| Rendimiento luminoso de las luminarias        | 30 lm/W        |
| Temperatura de color                          | 3000 K         |
| Standard Deviation of Colour Matching         | 2 Step MacAdam |
| Índice de rendimientos cromático              | 90 Ra          |
| Colour Rendering Index                        | 60 R9          |
| Black Body Locus                              | On             |
| Temperatura estándar del ambiente de servicio | -20 / +50°C    |
| Temperatura típica sobre el vidrio            | 40°C           |

## LED Life / Failure Ratio

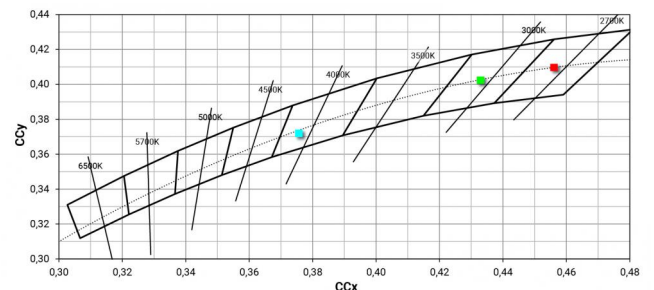
L70 B10 C0 252000h (at Tj 65 Ta 25)

## UGR

|                   |          |
|-------------------|----------|
| UGR axial         | 22.9     |
| UGR transversal   | 22.7     |
| X=4H   Y=8H       | S=0.25H  |
| Reflection factor | 70/50/20 |

## OPTICAL

|                |     |
|----------------|-----|
| Óptica C0/C180 | 46° |
| Symmetrical    |     |





Proyectores | 176-264 V | 1 arrayLED 13 W DC - 15.5 W AC | CRI 90 | Ángulo

óptico mínimo

## 81987W85

Single emission projectors for indoor application. The warm white LED light source with a adjustable focus light distribution is composed of 1 arrayed LEDs with CCT of 3000 K and a CRI 90; the source luminous flux is 1771 lm, with a 136.2 lm/W nominal luminous efficacy.

The device body is made of die-cast aluminium en ab - 46100 and features a white finish, processed by means of powder coating. The ingress protection degree is IP20; the total weight is of 0.390 kg.

The total absorbed power is 15.5 W.

The device features protection class II and can be ceiling-mounted.

Compliant with the EN 60598-1 standard and its specific provisions.

### Clase de eficiencia energética

Este producto contiene una fuente de luz de clase de eficiencia energética E.

### Características Luminotécnicas

|   |                |
|---|----------------|
| Light Output Ratio (LOR)                      | 11 %           |
| Flujo luminoso (fuente)                       | 1771 lm        |
| Flujo luminoso de luminaria                   | 207 lm         |
| Consumption                                   | 15.5 W         |
| Rendimiento luminoso de las luminarias        | 13 lm/W        |
| Temperatura de color                          | 3000 K         |
| Standard Deviation of Colour Matching         | 2 Step MacAdam |
| Índice de rendimientos cromático              | 90 Ra          |
| Colour Rendering Index                        | 60 R9          |
| Black Body Locus                              | On             |
| Temperatura estándar del ambiente de servicio | -20 / +50°C    |
| Temperatura típica sobre el vidrio            | 40°C           |

### LED Life / Failure Ratio

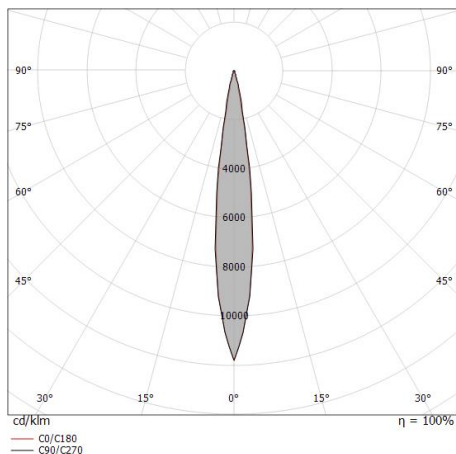
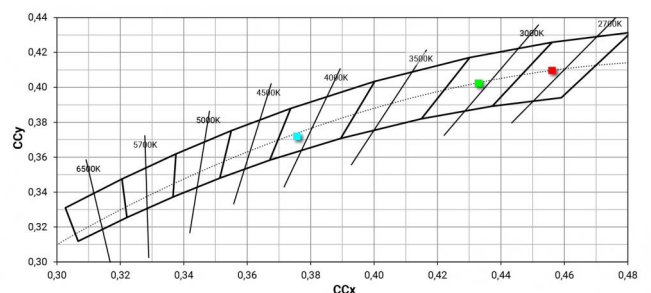
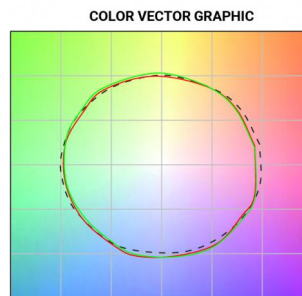
L70 B10 C0 252000h (at Tj 65 Ta 25)

### UGR

|                   |          |
|-------------------|----------|
| UGR axial         | 16.6     |
| UGR transversal   | 16       |
| X=4H   Y=8H       | S=0.25H  |
| Reflection factor | 70/50/20 |

### OPTICAL

|                |             |
|----------------|-------------|
| Óptica C0/C180 | 14°         |
|                | Symmetrical |



| Distance [m] | Cone diameter [m] | illuminance [lx]                        |
|--------------|-------------------|---|
| 0.5          | 0.13<br>0.12      | E(0°) 9734<br>E(C90) 4791<br>E(C0) 4784 |
| 1.0          | 0.25<br>0.25      | E(0°) 2434<br>E(C90) 1198<br>E(C0) 1196 |
| 1.5          | 0.38<br>0.37      | E(0°) 1082<br>E(C90) 532<br>E(C0) 532   |
| 2.0          | 0.51<br>0.48      | E(0°) 608<br>E(C90) 299<br>E(C0) 299    |
| 2.5          | 0.63<br>0.61      | E(0°) 389<br>E(C90) 192<br>E(C0) 191    |
| 3.0          | 0.76<br>0.74      | E(0°) 270<br>E(C90) 133<br>E(C0) 133    |



|  |  |  |                                     |
|--|--|--|-------------------------------------|
|  |  | <p>Fuente de alimentación<br/>Material:PC, color:blanco.</p> | <p><b>Code</b><br/><u>81033</u></p> |
|  |  | <p>Fuente de alimentación<br/>Material:PC, color:blanco.</p> | <p><b>Code</b><br/><u>81036</u></p> |
|  |  | <p>Fuente de alimentación<br/>Material:PC, color:negro.</p>  | <p><b>Code</b><br/><u>81037</u></p> |
|  |  | <p>Fuente de alimentación<br/>Material:PC, color:negro.</p>  | <p><b>Code</b><br/><u>81034</u></p> |
|  |  | <p>Tapón<br/>Material:PC, color:blanco.</p>                  | <p><b>Code</b><br/><u>80999</u></p> |
|  |  | <p>Tapón<br/>Material:PC, color:negro.</p>                   | <p><b>Code</b><br/><u>81000</u></p> |
|  |  | <p>Tapón<br/>Material:PC, color:blanco.</p>                  | <p><b>Code</b><br/><u>81002</u></p> |
|  |  | <p>Tapón<br/>Material:PC, color:negro.</p>                   | <p><b>Code</b><br/><u>81003</u></p> |



Tapón  
Material:blanco.

**Code**  
81084



Tapón  
Material:negro, color:negro.

**Code**  
81085



Rosetón  
Material:plástico, color:blanco.

**Code**  
81012



Rosetón  
Material:plástico, color:negro.

**Code**  
81014



Rosetón  
Material:plástico, color:blanco.

**Code**  
81013



Rosetón  
Material:plástico, color:negro.

**Code**  
81015



Soporte  
L=35mm, H=14mm, D=24mm.  
Material:aluminio, color:pulido.

**Finish**  
Anod. Al. **Code**  
81086



Soporte  
L=180mm, H=24mm, D=26mm.  
Material:aluminio, color:Aluminio Anodizado, elaboración :Anodizado.

**Finish**  
**Code**  
81024



Soporte

L=180mm, H=24mm, D=20mm.

Material:aluminio, color:blanco RAL 9010, elaboración :Pintura.

Finish

White

Code

81025



Soporte

L=180mm, H=24mm, D=20mm.

Material:aluminio, color:negro RAL 9005, elaboración :Pintura.

Finish

Black

Code

81026



Soporte

L=35mm, H=14mm, D=24mm.

Material:aluminio, color:blanco, elaboración :Pintura.

Finish

White

Code

81087



Soporte

L=35mm, H=14mm, D=24mm.

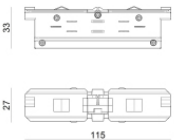
Material:aluminio, color:Negro, elaboración :Pintura.

Finish

Black

Code

81088



Unión

Tipo linear.

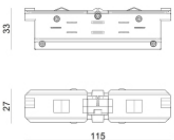
Material:PC, color:blanco.

Finish

White

Code

81039



Unión

Tipo linear.

Material:PC, color:negro.

Finish

Black

Code

81040



Unión

Tipo linear.

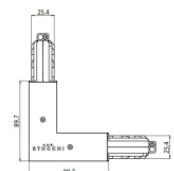
Material:PC, color:blanco.

Finish

White

Code

81042



Unión

Tipo linear.

Material:PC, color:blanco.

Finish

White

Code

81045



|  |  |  |                                |                              |
|--|--|--|--------------------------------|------------------------------|
|  |  | <p>Unión<br/>Tipo linear.<br/>Material:PC, color:blanco.</p>         | <p><b>Finish</b><br/>White</p> | <p><b>Code</b><br/>81048</p> |
|  |  | <p>Unión<br/>Tipo flexible curve.<br/>Material:PC, color:blanco.</p> | <p><b>Finish</b><br/>White</p> | <p><b>Code</b><br/>81066</p> |
|  |  | <p>Unión<br/>Tipo linear.<br/>Material:PC, color:blanco.</p>         | <p><b>Finish</b><br/>White</p> | <p><b>Code</b><br/>81063</p> |
|  |  | <p>Unión<br/>Tipo linear.<br/>Material:PC, color:blanco.</p>         | <p><b>Finish</b><br/>White</p> | <p><b>Code</b><br/>81051</p> |
|  |  | <p>Unión<br/>Tipo linear.<br/>Material:PC, color:blanco.</p>         | <p><b>Finish</b><br/>White</p> | <p><b>Code</b><br/>81054</p> |
|  |  | <p>Unión<br/>Tipo linear.<br/>Material:PC, color:blanco.</p>         | <p><b>Finish</b><br/>White</p> | <p><b>Code</b><br/>81057</p> |
|  |  | <p>Unión<br/>Tipo linear.<br/>Material:PC, color:blanco.</p>         | <p><b>Finish</b><br/>White</p> | <p><b>Code</b><br/>81060</p> |
|  |  | <p>Unión<br/>Tipo linear.<br/>Material:PC, color:negro.</p>          | <p><b>Finish</b><br/>Black</p> | <p><b>Code</b><br/>81043</p> |



|  |  |   |                                   |                                 |
|--|--|---|-----------------------------------|---------------------------------|
|  |  | <p>Unión</p> <p>Tipo linear.</p> <p>Material:PC, color:negro.</p>         | <p><b>Finish</b></p> <p>Black</p> | <p><b>Code</b></p> <p>81046</p> |
|  |  | <p>Unión</p> <p>Tipo linear.</p> <p>Material:PC, color:negro.</p>         | <p><b>Finish</b></p> <p>Black</p> | <p><b>Code</b></p> <p>81049</p> |
|  |  | <p>Unión</p> <p>Tipo flexible curve.</p> <p>Material:PC, color:negro.</p> | <p><b>Finish</b></p> <p>Black</p> | <p><b>Code</b></p> <p>81067</p> |
|  |  | <p>Unión</p> <p>Tipo linear.</p> <p>Material:PC, color:negro.</p>         | <p><b>Finish</b></p> <p>Black</p> | <p><b>Code</b></p> <p>81064</p> |
|  |  | <p>Unión</p> <p>Tipo linear.</p> <p>Material:PC, color:negro.</p>         | <p><b>Finish</b></p> <p>Black</p> | <p><b>Code</b></p> <p>81052</p> |
|  |  | <p>Unión</p> <p>Tipo linear.</p> <p>Material:PC, color:negro.</p>         | <p><b>Finish</b></p> <p>Black</p> | <p><b>Code</b></p> <p>81055</p> |
|  |  | <p>Unión</p> <p>Tipo linear.</p> <p>Material:PC, color:negro.</p>         | <p><b>Finish</b></p> <p>Black</p> | <p><b>Code</b></p> <p>81058</p> |
|  |  | <p>Unión</p> <p>Tipo linear.</p> <p>Material:PC, color:negro.</p>         | <p><b>Finish</b></p> <p>Black</p> | <p><b>Code</b></p> <p>81061</p> |





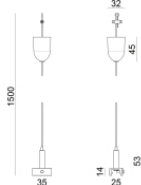
Colgantes  
Material:plástico, color:blanco.

**Code**  
81006



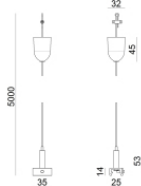
Colgantes  
Material:plástico, color:blanco.

**Code**  
81007



Colgantes  
Material:plástico, color:negro.

**Code**  
81008



Colgantes  
Material:plástico, color:negro.

**Code**  
81009



Colgantes  
Material:plástico, color:blanco.

**Code**  
81018



Colgantes  
Material:plástico, color:negro.

**Code**  
81019



Colgantes  
Material:plástico, color:blanco.

**Code**  
81021



Colgantes  
Material:plástico, color:negro.

**Code**  
81022



|  |  |   |                                     |
|--|--|---|-------------------------------------|
|  |  | <p>Cubierta de alambre<br/>Material:PC, color:blanco.</p> | <p><b>Code</b><br/><u>81069</u></p> |
|  |  | <p>Cubierta de alambre<br/>Material:PC, color:blanco.</p> | <p><b>Code</b><br/><u>81072</u></p> |
|  |  | <p>Cubierta de alambre<br/>Material:PC, color:blanco.</p> | <p><b>Code</b><br/><u>81075</u></p> |
|  |  | <p>Cubierta de alambre<br/>Material:PC, color:blanco.</p> | <p><b>Code</b><br/><u>81078</u></p> |
|  |  | <p>Cubierta de alambre<br/>Material:PC, color:blanco.</p> | <p><b>Code</b><br/><u>81081</u></p> |
|  |  | <p>Cubierta de alambre<br/>Material:PC, color:negro.</p>  | <p><b>Code</b><br/><u>81070</u></p> |
|  |  | <p>Cubierta de alambre<br/>Material:PC, color:negro.</p>  | <p><b>Code</b><br/><u>81073</u></p> |
|  |  | <p>Cubierta de alambre<br/>Material:PC, color:negro.</p>  | <p><b>Code</b><br/><u>81076</u></p> |



|  |  |   |                                     |
|--|--|---|-------------------------------------|
|  |  | <p>Cubierta de alambre<br/>Material:PC, color:negro.</p>    | <p><b>Code</b><br/><u>81079</u></p> |
|  |  | <p>Cubierta de alambre<br/>Material:PC, color:negro.</p>    | <p><b>Code</b><br/><u>81082</u></p> |
|  |  | <p>Cubierta de alambre<br/>Material:blanco.</p>             | <p><b>Code</b><br/><u>83249</u></p> |
|  |  | <p>Cubierta de alambre<br/>Material:negro, color:negro.</p> | <p><b>Code</b><br/><u>83250</u></p> |
|  |  |   | <p><b>Code</b><br/><u>81094</u></p> |
|  |  |   | <p><b>Code</b><br/><u>81091</u></p> |
|  |  |   | <p><b>Code</b><br/><u>81095</u></p> |
|  |  |   | <p><b>Code</b><br/><u>81093</u></p> |



|  |             |   |                               |
|--|-------------|---|-------------------------------|
|  | Herramienta | Code  |                               |
|  |             | 81005   |                               |
|  |             | Carril<br>Largo: 1000mm; Tipo carril: Standard.<br>Material:aluminio, color:Blanco, elaboración :Pintura. | Finish<br>White Code<br>80990 |
|  |             | Carril<br>Largo: 2000mm; Tipo carril: Standard.<br>Material:aluminio, color:Blanco, elaboración :Pintura. | Finish<br>White Code<br>80991 |
|  |             | Carril<br>Largo: 3000mm; Tipo carril: Standard.<br>Material:aluminio, color:Blanco, elaboración :Pintura. | Finish<br>White Code<br>80992 |
|  |             | Carril<br>Largo: 1000mm; Tipo carril: Standard.<br>Material:aluminio, color:Negro, elaboración :Pintura.  | Finish<br>Black Code<br>80993 |
|  |             | Carril<br>Largo: 2000mm; Tipo carril: Standard.<br>Material:aluminio, color:Negro, elaboración :Pintura.  | Finish<br>Black Code<br>80994 |
|  |             | Carril<br>Largo: 3000mm; Tipo carril: Standard.<br>Material:aluminio, color:Negro, elaboración :Pintura.  | Finish<br>Black Code<br>80995 |
|  |             | Carril<br>Largo: 1000mm; Tipo carril: Standard.<br>Material:aluminio, color:Blanco, elaboración :Pintura. | Finish<br>White Code<br>83336 |



|           |       | <p>Carril<br/>Largo: 2000mm; Tipo carril: Standard.<br/>Material:aluminio, color:Blanco, elaboración :Pintura.</p>  | <table border="1"> <thead> <tr> <th>Finish</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>White</td> <td>83337</td> </tr> </tbody> </table> | Finish | Code      | White | 83337 |
|-----------|-------|---|---|--------|-----------|-------|-------|
| Finish    | Code  |   |   |        |           |       |       |
| White     | 83337 |   |   |        |           |       |       |
|           |       | <p>Carril<br/>Largo: 3000mm; Tipo carril: Standard.<br/>Material:aluminio, color:Blanco, elaboración :Pintura.</p>  | <table border="1"> <thead> <tr> <th>Finish</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>White</td> <td>83338</td> </tr> </tbody> </table> | Finish | Code      | White | 83338 |
| Finish    | Code  |   |   |        |           |       |       |
| White     | 83338 |   |   |        |           |       |       |
|           |       | <p>Carril<br/>Largo: 1000mm; Tipo carril: Standard.<br/>Material:aluminio, color:Negro, elaboración :Pintura.</p>   | <table border="1"> <thead> <tr> <th>Finish</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Black</td> <td>83339</td> </tr> </tbody> </table> | Finish | Code      | Black | 83339 |
| Finish    | Code  |   |   |        |           |       |       |
| Black     | 83339 |   |   |        |           |       |       |
|           |       | <p>Carril<br/>Largo: 2000mm; Tipo carril: Standard.<br/>Material:aluminio, color:Negro, elaboración :Pintura.</p>   | <table border="1"> <thead> <tr> <th>Finish</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Black</td> <td>83340</td> </tr> </tbody> </table> | Finish | Code      | Black | 83340 |
| Finish    | Code  |   |   |        |           |       |       |
| Black     | 83340 |   |   |        |           |       |       |
|           |       | <p>Carril<br/>Largo: 3000mm; Tipo carril: Standard.<br/>Material:aluminio, color:Negro, elaboración :Pintura.</p>   | <table border="1"> <thead> <tr> <th>Finish</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Black</td> <td>83341</td> </tr> </tbody> </table> | Finish | Code      | Black | 83341 |
| Finish    | Code  |   |   |        |           |       |       |
| Black     | 83341 |   |   |        |           |       |       |
|           |       | <p>Accesorio electronico - Controlador TWIL-DALI para dispositivos con protocolo DALI instalados en carril trifásico.<br/>posición de instalación: techo L=90mm, H=124mm, D=45mm.<br/>Material:Plástico ABS, color:negro.</p> | <table border="1"> <thead> <tr> <th>Code</th> </tr> </thead> <tbody> <tr> <td>C-E700008</td> </tr> </tbody> </table>                            | Code   | C-E700008 |       |       |
| Code      |       |   |   |        |           |       |       |
| C-E700008 |       |   |   |        |           |       |       |