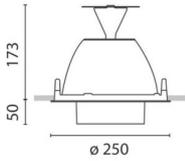


Última actualización de la información: Junio 2023

**Configuraciones productos: MS31+LED**

MS31: Empotrable extraíble-driver DALI

**Código producto**MS31: Empotrable extraíble-driver DALI **¡Advertencia! Código fuera de producción****Descripción**

Luminaria empotrable de aluminio fundido a presión y material termoplástico con lámpara led de tecnología C.o.B en color warm white 3000K. Luminaria con óptica flood y reflector OPTIBEAM de elevada eficiencia luminosa y distribución homogénea. El producto permite una rotación alrededor del eje vertical de 335° y 65° respecto a la superficie horizontal con fricción continua (sólo en este sentido de rotación). Incluye un controlador DALI separado.

**Instalación**

Instalación empotrable en falsos techos, con espesores a partir de 1 mm a 20 mm, mediante muelles de torsión de acero y soportes con bisagras.

**Colores**

Blanco (01) | Gris (15)

**Peso (Kg)**

3.05

**Montaje**

empotrable en el techo

**Equipo**

producto equipado con componentes DALI

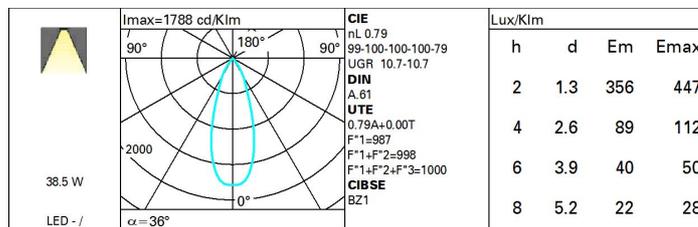
**Notas**

Para estar conformes con la norma NFC 20+455 utilizar el filtro accesorio cód. MW57 en cada luminaria

Se conforma con EN60598-1 y regulaciones pertinentes

**Datos técnicos**

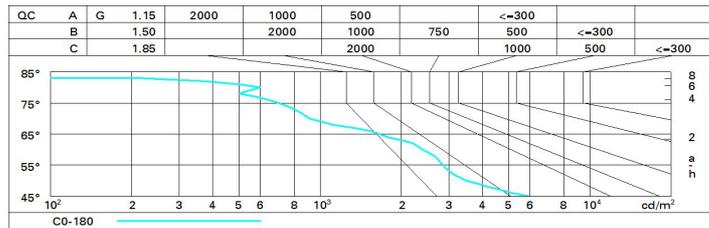
|   |        |                                      |                               |
|---|--------|--------------------------------------|-------------------------------|
| Im de sistema:  | 3551.4 | Temperatura de color [K]:            | 3000                          |
| W de sistema:   | 38.5   | MacAdam Step:                        | 3                             |
| Im de la fuente:  | 4500   | Life time (vida útil) LED 1:         | 50,000h - L80 - B10 (Ta 25°C) |
| W de la fuente:   | 34     | Pérdidas del transformador           | 4.5                           |
| Eficiencia luminosa (lm/W, valor del sistema):              | 92.2   | [W]:                                 |                               |
| Im en modo emergencia:                                      | -      | Código de lámpara:                   | LED                           |
| Flujo total de emisión en un ángulo de 90° o superior [Lm]: | 0      | Número de lámparas por grupo óptico: | 1                             |
| Light Output Ratio (L.O.R.) [%]:                            | 79     | Código ZVEI:                         | LED                           |
| Ángulo de apertura del haz de luz [°]:                      | 36°    | Número de grupos ópticos:            | 1                             |
| CRI:  | 80     | Control:                             | DALI                          |

**Polar**

**Coefficientes de uso**

|      |    |    |    |    |    |    |    |    |     |
|------|----|----|----|----|----|----|----|----|-----|
| R    | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
| K0.8 | 71 | 67 | 65 | 62 | 66 | 64 | 64 | 61 | 78  |
| 1.0  | 74 | 71 | 68 | 66 | 70 | 68 | 67 | 65 | 82  |
| 1.5  | 78 | 75 | 73 | 72 | 74 | 73 | 72 | 70 | 88  |
| 2.0  | 80 | 78 | 77 | 76 | 77 | 76 | 75 | 73 | 92  |
| 2.5  | 82 | 80 | 79 | 78 | 79 | 78 | 77 | 75 | 95  |
| 3.0  | 83 | 82 | 81 | 80 | 81 | 80 | 79 | 77 | 97  |
| 4.0  | 84 | 83 | 83 | 82 | 82 | 81 | 80 | 78 | 99  |
| 5.0  | 84 | 84 | 83 | 83 | 82 | 82 | 81 | 79 | 100 |

**Curva límite de luminancia**



**Diagrama UGR**

Photometric curve code: MS270000 X77  
Unorrected UGR values (at 1000 lm bare lamp luminous flux)

| Riflect.:   |      | viewed crosswise |      |      |      |      | viewed endwise |      |      |      |      |
|---|------|------------------|------|------|------|------|----------------|------|------|------|------|
| ceíl/cav  |      | 0.70             | 0.70 | 0.50 | 0.50 | 0.30 | 0.70           | 0.70 | 0.50 | 0.50 | 0.30 |
| walls   |      | 0.50             | 0.30 | 0.50 | 0.30 | 0.30 | 0.50           | 0.30 | 0.50 | 0.30 | 0.30 |
| work pl.  |      | 0.20             | 0.20 | 0.20 | 0.20 | 0.20 | 0.20           | 0.20 | 0.20 | 0.20 | 0.20 |
| Room dim  |      | viewed crosswise |      |      |      |      | viewed endwise |      |      |      |      |
| x   | y    |                  |      |      |      |      |                |      |      |      |      |
| 2H  | 2H   | 11.3             | 11.9 | 11.5 | 12.1 | 12.3 | 11.3           | 11.9 | 11.5 | 12.1 | 12.3 |
|   | 3H   | 11.1             | 11.7 | 11.5 | 12.0 | 12.2 | 11.1           | 11.7 | 11.5 | 12.0 | 12.2 |
|   | 4H   | 11.1             | 11.6 | 11.4 | 11.9 | 12.2 | 11.1           | 11.6 | 11.4 | 11.9 | 12.2 |
|   | 6H   | 11.0             | 11.5 | 11.3 | 11.8 | 12.1 | 11.0           | 11.5 | 11.3 | 11.8 | 12.1 |
|   | 8H   | 11.0             | 11.4 | 11.3 | 11.7 | 12.1 | 11.0           | 11.4 | 11.3 | 11.7 | 12.1 |
| 12H   | 10.9 | 11.4             | 11.3 | 11.7 | 12.0 | 10.9 | 11.3           | 11.3 | 11.7 | 12.0 |      |
| 4H  | 2H   | 11.1             | 11.6 | 11.4 | 11.9 | 12.2 | 11.1           | 11.6 | 11.4 | 11.9 | 12.2 |
|   | 3H   | 10.9             | 11.4 | 11.3 | 11.7 | 12.1 | 10.9           | 11.4 | 11.3 | 11.7 | 12.1 |
|   | 4H   | 10.8             | 11.2 | 11.2 | 11.6 | 12.0 | 10.8           | 11.2 | 11.2 | 11.6 | 12.0 |
|   | 6H   | 10.8             | 11.1 | 11.2 | 11.5 | 11.9 | 10.8           | 11.1 | 11.2 | 11.5 | 11.9 |
|   | 8H   | 10.7             | 11.0 | 11.2 | 11.4 | 11.9 | 10.7           | 11.0 | 11.2 | 11.4 | 11.9 |
| 12H   | 10.7 | 10.9             | 11.1 | 11.4 | 11.8 | 10.7 | 10.9           | 11.1 | 11.4 | 11.8 |      |
| 8H  | 4H   | 10.7             | 11.0 | 11.2 | 11.4 | 11.9 | 10.7           | 11.0 | 11.2 | 11.4 | 11.9 |
|   | 6H   | 10.6             | 10.9 | 11.1 | 11.3 | 11.8 | 10.6           | 10.9 | 11.1 | 11.3 | 11.8 |
|   | 8H   | 10.6             | 10.8 | 11.1 | 11.2 | 11.7 | 10.6           | 10.8 | 11.1 | 11.2 | 11.7 |
|   | 12H  | 10.5             | 10.7 | 11.0 | 11.2 | 11.7 | 10.5           | 10.7 | 11.0 | 11.2 | 11.7 |
| 12H   | 4H   | 10.7             | 10.9 | 11.1 | 11.4 | 11.8 | 10.7           | 10.9 | 11.1 | 11.4 | 11.8 |
|   | 6H   | 10.6             | 10.8 | 11.1 | 11.2 | 11.7 | 10.6           | 10.8 | 11.1 | 11.2 | 11.7 |
|   | 8H   | 10.5             | 10.7 | 11.0 | 11.2 | 11.7 | 10.5           | 10.7 | 11.0 | 11.2 | 11.7 |
| Variations with the observer position at spacing: |      |                  |      |      |      |      |                |      |      |      |      |
| S =   | 1.0H | 5.8 / -12.5      |      |      |      |      | 5.8 / -12.5    |      |      |      |      |
|   | 1.5H | 8.6 / -13.5      |      |      |      |      | 8.6 / -13.5    |      |      |      |      |
|   | 2.0H | 10.6 / -16.1     |      |      |      |      | 10.6 / -16.1   |      |      |      |      |