Last information update: April 2024

## Product configuration: P524

P524: Fixed circular recessed luminaire - $\varnothing 125 \mathrm{~mm}$ - natural white - flood optic - UGR<10-DALI

## Product code

P524: Fixed circular recessed luminaire - $\varnothing 125 \mathrm{~mm}$ - natural white - flood optic - UGR<10 - DALI

## Technical description

Fixed round luminaire designed to use a LED lamp with C.O.B. technology. Version with rim for surface-mounting. Optic with super comfort reflector vacuum-metallised with aluminium vapours and an anti-scratch protective layer. Die-cast aluminium body and passive dissipation system. Product complete with LED lamp in neutral white colour tone (4,000K). General light emission, with controlled luminance UGR<10 $1500 \mathrm{~cd} / \mathrm{m} 2 \alpha>65^{\circ}$ flood optic.

## Installation

Recessed using torsion springs which allow easy installation in false ceilings with thicknesses ranging from 1 mm to 20 mm .

| Colour | Weight (Kg) |
| :--- | :--- |
| White / Aluminium (39) | 1.15 |

## Mounting

ceiling recessed
Wiring
product complete with DALI components
$\square$ IP20 IP54 $\left.\begin{array}{l}\text { On the visible part of } \\ \text { the product once installed }\end{array}\right)$ Complies with EN60598-1 and pertinent regulations

| Technical data |  |  |  |
| :---: | :---: | :---: | :---: |
| Im system: | 2275 | Life Time LED 1: | > 50,000h-L90-B10 (Ta $25^{\circ} \mathrm{C}$ ) |
| W system: | 24.1 | Lamp code: | LED |
| Im source: | 3250 | Number of lamps for optical | 1 |
| W source: | 21 | assembly: |  |
| Luminous efficiency ( $\mathrm{Im} / \mathrm{W}$, | 94.4 | ZVEI Code: | LED |
| real value): |  | Number of optical | 1 |
| Im in emergency mode: | - | assemblies: |  |
| Total light flux at or above | 0 | Power factor: | See installation instructions |
| an angle of $90^{\circ}$ [Lm]: |  | Inrush current: | $18 \mathrm{~A} / 250$ ¢ |
| Light Output Ratio (L.O.R.) [\%]: | 70 | Maximum number of luminaires of this type per | B10A: 21 luminaires |
| Beam angle [ ${ }^{\circ}$ ]: | $24^{\circ}$ | miniature circuit breaker: | B16A: 34 luminaires |
| CRI (minimum): | 80 |  | C10A: 35 luminaires |
| Colour temperature [K]: | 4000 |  | C16A: 57 luminaires |
| MacAdam Step: | 2 | Minimum dimming \%: | 1 , |
|  |  | Overvoltage protection: | 2kV Common mode \& 1kV Differential mode |
|  |  | Control: | DALI-2 |

## Polar



## Utilisation factors

| $R$ | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K0.8 | 63 | 60 | 57 | 56 | 59 | 57 | 57 | 54 | 78 |
| 1.0 | 66 | 63 | 61 | 59 | 62 | 60 | 60 | 58 | 82 |
| 1.5 | 69 | 67 | 65 | 64 | 66 | 65 | 64 | 62 | 88 |
| 2.0 | 71 | 70 | 68 | 67 | 69 | 68 | 67 | 65 | 93 |
| 2.5 | 73 | 71 | 70 | 70 | 70 | 69 | 69 | 67 | 95 |
| 3.0 | 73 | 73 | 72 | 71 | 71 | 71 | 70 | 68 | 98 |
| 4.0 | 74 | 74 | 73 | 73 | 73 | 72 | 71 | 69 | 99 |
| 5.0 | 75 | 74 | 74 | 74 | 73 | 73 | 72 | 70 | 100 |

Luminance curve limit

| Qc | A | G | 1.15 |  | 2000 |  |  | 000 |  | 500 |  |  | $<-300$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | B |  | 1.50 |  |  |  |  | 000 |  | 1000 | 750 |  | 500 |  | <-300 |  |  |
|  | c |  | 1.85 |  |  |  |  |  |  | 2000 |  |  | 1000 |  | 500 |  | 300 |
| $85^{\circ}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $75^{\circ}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $65^{\circ}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $55^{\circ}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ${ }^{\text {h }}$ |
| $45^{\circ} \stackrel{ }{10^{2}}$ |  |  | 2 | 3 | 4 | 56 |  | 810 |  | $10^{3}$ | 2 | 4 | 56 | 68 | $\begin{array}{llll}8 & 10^{4} & \mathrm{od} / \mathrm{m}^{2}\end{array}$ |  |  |
|  | C0-18 |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |

UGR diagram

| Corrected UGR values (at 3250 Im bare lamp luminous flux) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rifl cei wa wo Roo x | v <br> pl. <br> dim <br> y | $\begin{aligned} & 0.70 \\ & 0.50 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.70 \\ & 0.30 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.50 \\ & 0.50 \\ & 0.20 \end{aligned}$ <br> viewed cosswise | $\begin{aligned} & 0.50 \\ & 0.30 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.30 \\ & 0.30 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.70 \\ & 0.50 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.70 \\ & 0.30 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.50 \\ & 0.50 \\ & 0.20 \end{aligned}$ <br> viewed endwise | $\begin{aligned} & 0.50 \\ & 0.30 \\ & 0.20 \end{aligned}$ | 0.30 0.30 0.20 |
| 2 H | 2 H | 2.6 | 4.7 | 3.0 | 5.0 | 5.4 | 2.6 | 4.7 | 3.0 | 5.0 | 5.4 |
|  | 3 H | 2.6 | 4.3 | 3.0 | 4.6 | 5.0 | 2.5 | 4.2 | 2.9 | 4.5 | 4.9 |
|  | 4 H | 2.7 | 4.1 | 3.0 | 4.4 | 4.8 | 2.5 | 3.9 | 2.9 | 4.2 | 4.6 |
|  | 6 H | 2.7 | 3.8 | 3.1 | 4.1 | 4.5 | 2.5 | 3.6 | 2.9 | 3.9 | 4.3 |
|  | 8 H | 2.6 | 3.7 | 3.0 | 4.1 | 4.5 | 2.4 | 3.5 | 2.8 | 3.9 | 4.2 |
|  | 12 H | 2.6 | 3.7 | 3.0 | 4.0 | 4.4 | 2.4 | 3.5 | 2.8 | 3.8 | 4.2 |
| 4 H | 2 H | 2.5 | 3.9 | 2.9 | 4.2 | 4.6 | 2.7 | 4.1 | 3.0 | 4.4 | 4.8 |
|  | 3 H | 2.7 | 3.7 | 3.1 | 4.1 | 4.5 | 2.7 | 3.8 | 3.1 | 4.1 | 4.5 |
|  | 4 H | 2.7 | 3.7 | 3.1 | 4.1 | 4.5 | 2.7 | 3.7 | 3.1 | 4.1 | 4.5 |
|  | 6 H | 2.4 | 4.1 | 2.9 | 4.5 | 5.0 | 2.4 | 4.1 | 2.8 | 4.5 | 5.0 |
|  | 8 H | 2.3 | 4.2 | 2.8 | 4.6 | 5.1 | 2.2 | 4.1 | 2.7 | 4.6 | 5.1 |
|  | 12H | 2.2 | 4.2 | 2.7 | 4.7 | 5.2 | 2.1 | 4.1 | 2.6 | 4.6 | 5.1 |
| 8 H | 4 H | 2.2 | 4.1 | 2.7 | 4.6 | 5.1 | 2.3 | 4.2 | 2.8 | 4.6 | 5.1 |
|  | 6 H | 2.2 | 4.1 | 2.8 | 4.5 | 5.1 | 2.2 | 4.1 | 2.8 | 4.6 | 5.1 |
|  | 8 H | 2.2 | 3.9 | 2.8 | 4.4 | 4.9 | 2.2 | 3.9 | 2.8 | 4.4 | 4.9 |
|  | 12H | 2.5 | 3.5 | 3.0 | 4.0 | 4.5 | 2.4 | 3.5 | 3.0 | 4.0 | 4.5 |
| 12H | 4 H | 2.1 | 4.1 | 2.6 | 4.6 | 5.1 | 2.2 | 4.2 | 2.7 | 4.7 | 5.2 |
|  | 6 H | 2.2 | 3.9 | 2.8 | 4.4 | 4.9 | 2.3 | 3.9 | 2.8 | 4.4 | 4.9 |
|  | 8 H | 2.4 | 3.5 | 3.0 | 4.0 | 4.5 | 2.5 | 3.5 | 3.0 | 4.0 | 4.5 |
| Variations with the o bserver position at spacing: |  |  |  |  |  |  |  |  |  |  |  |
| $\mathrm{S}=$ | 1.0 H |  |  | / / -3.5 |  |  |  |  | 3.9 / -3.5 |  |  |
|  | 1.5 H |  |  | . 4 / 4.7 |  |  |  |  | 0.4/-4.7 |  |  |
|  | 2.0 H |  |  | . 4 / 4.9 |  |  |  |  | $8.4 /-4.9$ |  |  |

