



La serie 20 de panel LED es un producto ideal para iluminación general interior para sustitución de pantallas de tubos fluorescente.

Gracias a su bajo grado de deslumbramiento, es un producto adecuado para las establecimientos que exigen **UGR<19** según la Norma de Alumbrado para Interiores **UNE 12464-1**. Crear un ambiente agradable y confort visual para los usuarios.

Está diseñado para el montaje empotrado directamente en techo Armstrong o techo de escayola con grapas, también se puede montar en suspensión y en superficie con los accesorios del panel.

Recomendable para oficina, escuelas, comercios, hospitales, cocinas, etc..



## Datos del producto

### + Información general

|                               |  |
|-------------------------------|--|
| Tipo de luminaria             | Panel LED para uso interior  |
| Forma de montaje              | Empotrado en techo armstrong y en techo falso de escayola <sup>(1)</sup><br>Adosado <sup>(1)</sup><br>En suspensión <sup>(1)</sup> |
| Sistema óptico                | Difusor  |
| Clase de seguridad            | Clase II   |
| Código IP                     | IP42   |
| Color de acabado              | Blanco   |
| Protección contra inflamación | Adecuado para el montaje en superficies normalmente inflamables  |
| Driver                        | Incluido<br>Externo  |
| Clase de seguridad de driver  | Clase II   |
| Regulación                    | No regulable<br>Regulación 4 en 1: <sup>(3)</sup><br>PWM 10V<br>0/1-10V<br>TRIAC, principio y fin de fase<br>Resistiva 100KΩ       |

### + Datos Eléctricos

|                     |             |
|---------------------|-------------|
| Tensión de entrada  | 200-240 VAC |
| Frecuencia de línea | 50 Hz       |

### + Datos Mecánicos

|                             |                   |
|-----------------------------|-------------------|
| Material de la carcasa      | Aluminio          |
| Material del difusor        | PMMA              |
| Material de la plancha base | Acero galvanizado |

### + Características iniciales

|                               |  |
|-------------------------------|--|
| Potencia nominal              | 38 W   |
| Factor de potencia            | 0,92 <sup>(2)</sup>                                      |
| Fuente de luz                 | LED SMD 2835, 120pcs                                     |
| Flujo luminoso inicial LED    | 5400lm   |
| Flujo luminoso inicial        | 3800 lm  |
| Eficiencia luminosa           | 100 lm/W   |
| Tolerancia de flujo luminoso  | +/-10%   |
| Índice reproducción cromática | 80 Ra  |
| Temperatura de color          | 3000 K <sup>(3)</sup><br>4000 K<br>5000 K <sup>(3)</sup> |
| Tolerancia de CCT             | +/-300K  |
| Apertura de haz (50%Imax)     | 90°  |
| Apertura de campo (10%Imax)   | 150°   |

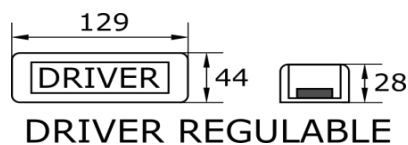
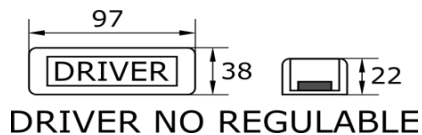
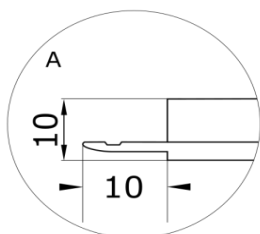
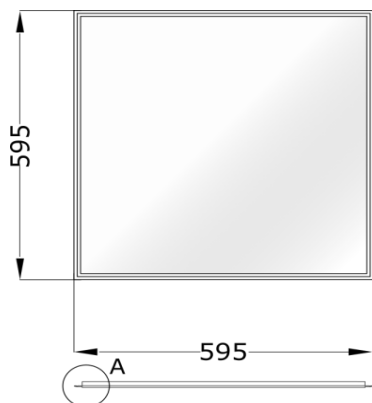
### + Duración

|                    |           |
|--------------------|-----------|
| Vida útil (L70B50) | 50000 hrs |
|--------------------|-----------|

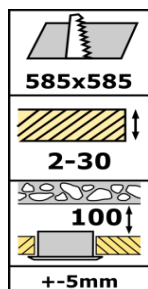
### + Condiciones ambientales de utilización

|                             |                |
|-----------------------------|----------------|
| Temperatura medio de uso    | 25°C           |
| Rango de temperatura de uso | de -10 a +40°C |
| Humedad de uso              | ≤ 85% RH       |
| Temperatura de almacenaje   | de -20 a +60°C |

## Plano de dimensiones



## Esquema de montaje

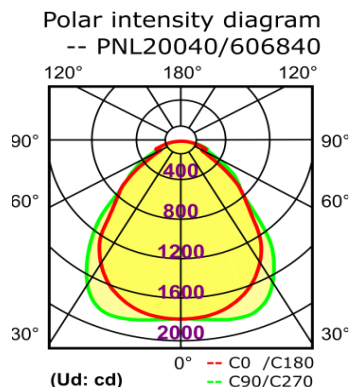


## Datos de Embalaje

|                              |                        |
|------------------------------|------------------------|
| Unidades por caja            | 1 pcs                  |
| Cajas por caja exterior      | 5 uds                  |
| Medida de caja               | L 685 * A 680 * Al 55  |
| Medida de caja exterior      | L 700 * A 700 * Al 285 |
| Peso neto por producto       | 3200 g.                |
| Peso bruto por caja          | 4000 g.                |
| Peso bruto por caja exterior | 22 Kg.                 |

### Datos fotométricos

#### + Información general



|                              |   |
|------------------------------|---|
| Flujo luminoso inicial LED   | 5400.00                                 |
| Flujo luminoso inicial (lm)  | 3800.00                                 |
| L.O.R.                       | 70%                                     |
| Lúmenes(lm)/Potencia (W)     | 100.00                                  |
| Intensidad central (cd)      | 1760.00                                 |
| Intensidad máxima (cd)       | 1760.00                                 |
| Ángulo la intensidad máxima  | C=270,0 γ=19,0                          |
| Apertura de haz (50% Imax)   | 90°                                     |
| Apertura de campo (10% Imax) | 150°                                    |
| S/HM                         | transversal= 1.25<br>longitudinal= 1.30 |
| Tipo de CIE                  | Iluminación directa                     |

#### + Tabla de Coeficiencia de utilización RHOFC=19

| RHOCC | 80                                      |      |      | 70   |      |      | 50   |      |      | 30   |      |      | 10   |      |      | 0    |
|-------|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| RHOW  | 50                                      | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 0    |
| RCR   | COEFICIENCIA DE UTILIZACIÓN RHOFC=20 CU |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0     | 1.19                                    | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | 1.00 |
| 1     | 1.06                                    | 1.02 | 0.99 | 1.04 | 1.00 | 0.97 | 0.99 | 0.97 | 0.94 | 0.96 | 0.93 | 0.91 | 0.92 | 0.90 | 0.89 | 0.87 |
| 2     | 0.94                                    | 0.88 | 0.83 | 0.92 | 0.87 | 0.82 | 0.89 | 0.84 | 0.80 | 0.86 | 0.82 | 0.78 | 0.83 | 0.80 | 0.77 | 0.75 |
| 3     | 0.84                                    | 0.77 | 0.71 | 0.83 | 0.76 | 0.71 | 0.80 | 0.74 | 0.69 | 0.77 | 0.72 | 0.68 | 0.75 | 0.71 | 0.67 | 0.65 |
| 4     | 0.76                                    | 0.68 | 0.62 | 0.75 | 0.67 | 0.62 | 0.72 | 0.66 | 0.61 | 0.70 | 0.64 | 0.60 | 0.68 | 0.63 | 0.59 | 0.57 |
| 5     | 0.69                                    | 0.61 | 0.55 | 0.68 | 0.60 | 0.54 | 0.66 | 0.59 | 0.54 | 0.64 | 0.58 | 0.53 | 0.62 | 0.57 | 0.53 | 0.51 |
| 6     | 0.63                                    | 0.54 | 0.48 | 0.62 | 0.54 | 0.48 | 0.60 | 0.53 | 0.48 | 0.58 | 0.52 | 0.47 | 0.57 | 0.51 | 0.47 | 0.45 |
| 7     | 0.57                                    | 0.49 | 0.43 | 0.56 | 0.49 | 0.43 | 0.55 | 0.48 | 0.43 | 0.54 | 0.47 | 0.43 | 0.52 | 0.47 | 0.42 | 0.41 |
| 8     | 0.53                                    | 0.45 | 0.39 | 0.52 | 0.44 | 0.39 | 0.51 | 0.44 | 0.39 | 0.49 | 0.43 | 0.39 | 0.48 | 0.43 | 0.39 | 0.37 |
| 9     | 0.49                                    | 0.41 | 0.36 | 0.48 | 0.41 | 0.36 | 0.47 | 0.40 | 0.35 | 0.46 | 0.40 | 0.35 | 0.45 | 0.39 | 0.35 | 0.33 |
| 10    | 0.45                                    | 0.38 | 0.33 | 0.45 | 0.37 | 0.33 | 0.44 | 0.37 | 0.32 | 0.43 | 0.37 | 0.32 | 0.42 | 0.36 | 0.32 | 0.31 |

UGR(Unified Glare Rating) Table

|  |                  |      |      |      |       |                |      |                     |      |      |
|--|------------------|------|------|------|-------|----------------|------|---------------------|------|------|
| Test:U:220.1V I:0.1762A P:38.11W PF:0.9830 Freq:50.00Hz Lamp Flux:3705.4lx1 lm |                  |      |      |      |       |                |      |                     |      |      |
| NAME: LED Panel Light  |                  |      |      |      | TYPE: |                |      | WEIGHT:N/A          |      |      |
| SPEC.:N/A  |                  |      |      |      | DIM.: |                |      | SERIAL No.:N/A      |      |      |
| MFR.: 海利光电   |                  |      |      |      | SUR.: |                |      | Shielding Angle:N/A |      |      |
| ceiling/cavity   | 0.7              | 0.7  | 0.5  | 0.5  | 0.3   | 0.7            | 0.7  | 0.5                 | 0.5  | 0.3  |
| walls  | 0.5              | 0.3  | 0.5  | 0.3  | 0.3   | 0.5            | 0.3  | 0.5                 | 0.3  | 0.3  |
| working plane  | 0.2              | 0.2  | 0.2  | 0.2  | 0.2   | 0.2            | 0.2  | 0.2                 | 0.2  | 0.2  |
| Room dimensions  | Viewed crosswise |      |      |      |       | Viewed endwise |      |                     |      |      |
| x = 2H y = 2H  | 15.2             | 16.6 | 15.5 | 16.8 | 17.0  | 16.1           | 17.5 | 16.3                | 17.6 | 17.8 |
| 3H   | 16.3             | 17.5 | 16.6 | 17.8 | 18.0  | 17.1           | 18.4 | 17.4                | 18.6 | 18.8 |
| 4H   | 16.9             | 18.1 | 17.2 | 18.3 | 18.6  | 17.7           | 18.9 | 18.0                | 19.1 | 19.3 |
| 6H   | 17.4             | 18.5 | 17.7 | 18.7 | 19.0  | 18.2           | 19.3 | 18.5                | 19.5 | 19.8 |
| 8H   | 17.5             | 18.6 | 17.9 | 18.9 | 19.2  | 18.3           | 19.4 | 18.6                | 19.7 | 19.9 |
| 12H  | 17.6             | 18.7 | 18.0 | 19.0 | 19.3  | 18.4           | 19.4 | 18.7                | 19.7 | 20.0 |
| 4H   | 2H               | 15.6 | 16.8 | 15.9 | 17.1  | 17.3           | 16.4 | 17.6                | 16.7 | 17.8 |
| 3H   | 16.9             | 18.0 | 17.3 | 18.3 | 18.6  | 17.6           | 18.6 | 18.0                | 18.9 | 19.2 |
| 4H   | 17.7             | 18.6 | 18.1 | 18.9 | 19.3  | 18.3           | 19.2 | 18.7                | 19.5 | 19.9 |
| 6H   | 18.3             | 19.2 | 18.7 | 19.5 | 19.9  | 18.9           | 19.8 | 19.3                | 20.1 | 20.5 |
| 8H   | 18.6             | 19.3 | 19.0 | 19.7 | 20.1  | 19.2           | 20.0 | 19.6                | 20.3 | 20.7 |
| 12H  | 18.7             | 19.4 | 19.1 | 19.8 | 20.2  | 19.3           | 20.0 | 19.7                | 20.4 | 20.8 |
| 8H   | 4H               | 17.9 | 18.7 | 18.3 | 19.1  | 19.5           | 18.5 | 19.3                | 18.9 | 19.6 |
| 6H   | 18.8             | 19.4 | 19.2 | 19.8 | 20.2  | 19.3           | 20.0 | 19.8                | 20.4 | 20.8 |
| 8H   | 19.1             | 19.7 | 19.5 | 20.1 | 20.5  | 19.7           | 20.2 | 20.1                | 20.7 | 21.1 |
| 12H  | 19.3             | 19.8 | 19.8 | 20.3 | 20.7  | 19.9           | 20.4 | 20.4                | 20.8 | 21.3 |
| 12H  | 4H               | 18.0 | 18.7 | 18.4 | 19.1  | 19.5           | 18.5 | 19.2                | 18.9 | 19.6 |
| 6H   | 18.9             | 19.4 | 19.3 | 19.9 | 20.3  | 19.4           | 20.0 | 19.9                | 20.4 | 20.8 |
| 8H   | 19.2             | 19.7 | 19.7 | 20.2 | 20.7  | 19.8           | 20.3 | 20.3                | 20.7 | 21.2 |
| Variations with the observer position at spacings:                             |                  |      |      |      |       |                |      |                     |      |      |
| S = 1.0H   | + 0.2 / - 0.4    |      |      |      |       | + 0.3 / - 0.4  |      |                     |      |      |
| 1.5H   | + 0.2 / - 0.2    |      |      |      |       | + 0.3 / - 0.3  |      |                     |      |      |
| 2.0H   | + 0.5 / - 1.0    |      |      |      |       | + 0.6 / - 0.6  |      |                     |      |      |

CIE Pub.117 Corrected 3705 lm Total Lamp Luminous Flux.(Slog(F/F0) = 4.6)

- (1) Con accesorio
- (2) Con carga mayor de 80%.
- (3) Consultar stock.