

## Datasheet

LED engine specification

Product type:  
**LF-24-405-24.2x16-PU**

Description:  
**LuxaLight Industrial LED Fixture Transparent IP68 UV-A 405nm 24.2x16mm  
(24 Volt, 2835, IP64)**



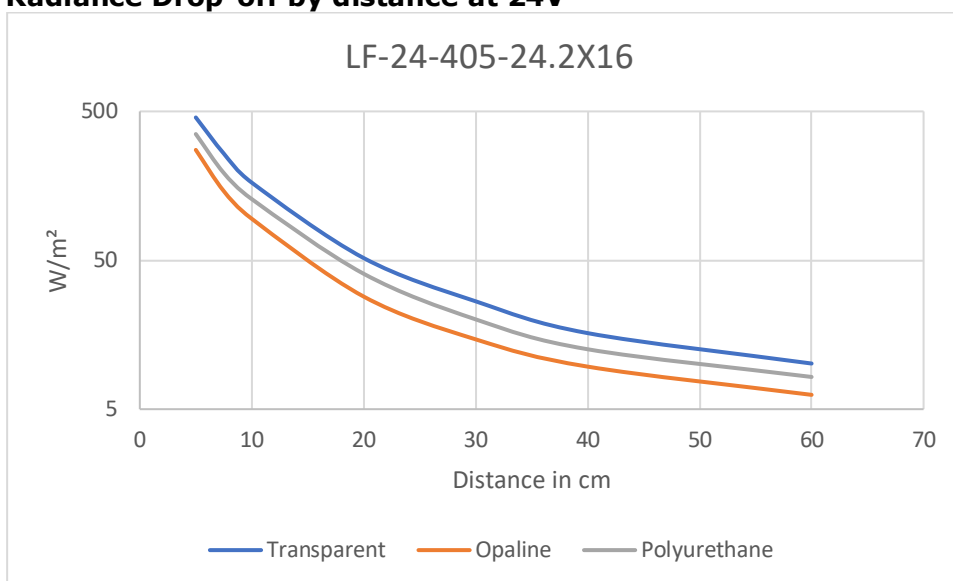
Date:  
21-11-2023

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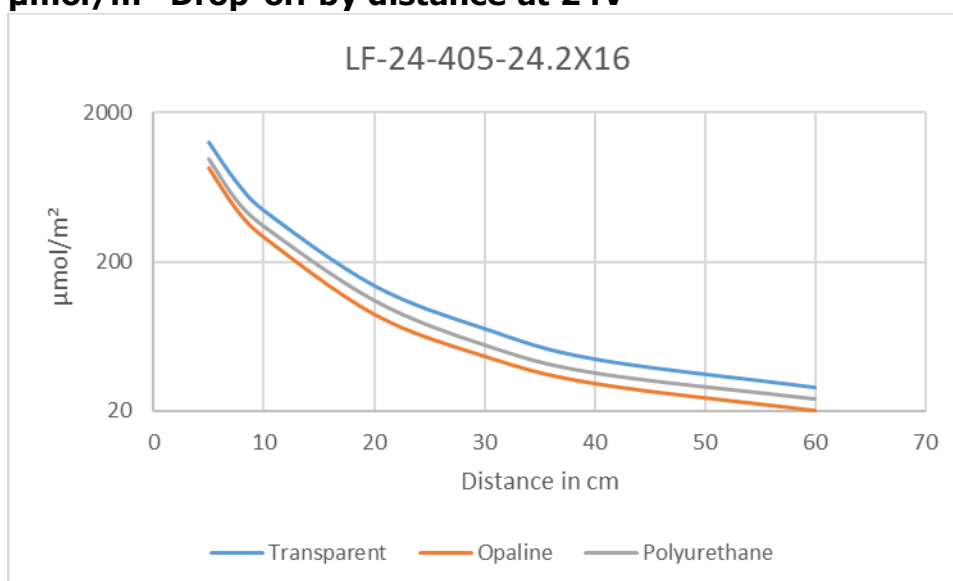
| Technical Specifications  |  |  |              |              |              |
|---|--|--|--------------|--------------|--------------|
| LF-24-405-24.2x16-TC  |  | Transparent cover<br>TC                                    |              |              |              |
| General   | LED Type   | 2835 SMD   |              |              |              |
|   | LED Quantity   | 108 LEDs / Engine  |              |              |              |
|   | Dimensions   | 220mm - 3000mm * 24,2mm * 16mm (L * B * H)                 |              |              |              |
|   | Weight   | Variable, depending on moulding and length                 |              |              |              |
|   | Infosheet  | <a href="#">LuxaLight Industrial LED Fixtures infopage</a> |              |              |              |
| Environment   | Working Temperature  | -5°C ~ +60°C   |              |              |              |
|   | Storing Temperature  | -5°C ~ +60°C   |              |              |              |
|   | IP Grade   | IP64   |              |              |              |
|   | Mechanical Protection  | PMMA Cover   |              |              |              |
|   | Moulding Resin   | N.A.   |              |              |              |
|   | Housing material   | Anodized aluminium   |              |              |              |
| Electronic  | Working Voltage  | DC24V  |              |              |              |
|   | Working Current  | 1,25 A / Engine  |              |              |              |
|   | Working Wattage  | 30 W / Engine  |              |              |              |
|   | LED Engine type  | <a href="#">LuxaLight LED Engine UV-A 405nm 2835 IP64</a>  |              |              |              |
|   | Driving Method   | Constant Voltage   |              |              |              |
|   | Cable type   | <a href="#">PUR Cable 4x 0.5mm² Gray   LuxaLight</a>       |              |              |              |
|   | NTC Resistance   | 5KOhm  |              |              |              |
|   | NTC Beta   | 3950   |              |              |              |
| Lighting  | Voltage at measurement   | 21,8VDC  | 24VDC        | 27,7VDC      |              |
|   | Current at measurement   | 0,47 A   | 1,25 A       | 2,25 A       |              |
|   | Wattage at measurement   | 10,2 W   | 30 W         | 62,3 W       |              |
|   | Engine Wavelength (nm)   | 405nm UV-A   |              |              |              |
|   | Peak Measured Wavelength (5cm)                                 | 406nm  |              |              |              |
|   | Peak Measured Radiance per distance (cm) (1 LED Engine)        | 5  | 14 W/m²      | 26,5 W/m²    | 55,6 W/m²    |
|   |  | 7,5  | 6,3 W/m²     | 14,2 W/m²    | 29,8 W/m²    |
|   |  | 10   | 4,2 W/m²     | 9,2 W/m²     | 19 W/m²      |
|   |  | 20   | 1,2 W/m²     | 2,77 W/m²    | 5,5 W/m²     |
|   |  | 30   | 0,5 W/m²     | 1,4 W/m²     | 2,5 W/m²     |
|   |  | 40   | 0,5 W/m²     | 0,85 W/m²    | 1,5 W/m²     |
|   |  | 60   | 0,18 W/m²    | 0,5 W/m²     | 0,9 W/m²     |
|   | Total Radiance per distance 230nm - 1000nm (cm) (1 LED Engine) | 5  | 240 W/m²     | 455 W/m²     | 914 W/m²     |
|   |  | 7,5  | 116 W/m²     | 260 W/m²     | 522 W/m²     |
|   |  | 10   | 75,4 W/m²    | 166 W/m²     | 333 W/m²     |
|   |  | 20   | 22,5 W/m²    | 51,8 W/m²    | 98 W/m²      |
|   |  | 30   | 10,4 W/m²    | 26,5 W/m²    | 47 W/m²      |
|   |  | 40   | 6,3 W/m²     | 16,2 W/m²    | 27,9 W/m²    |
|   |  | 60   | 3,7 W/m²     | 10,1 W/m²    | 16,4 W/m²    |
|   | Total PPFd PAR (400nm - 700nm) (1 LED Engine)                  | 5  | 666 µmol/m²  | 1263 µmol/m² | 2537 µmol/m² |
|   |  | 7,5  | 307 µmol/m²  | 687 µmol/m²  | 1379 µmol/m² |
|   |  | 10   | 201 µmol/m²  | 442 µmol/m²  | 667 µmol/m²  |
|   |  | 20   | 60 µmol/m²   | 139 µmol/m²  | 263 µmol/m²  |
| 30  |  | 28 µmol/m²   | 71,8 µmol/m² | 127 µmol/m²  |              |
| 40  |  | 17,5 µmol/m²   | 44,9 µmol/m² | 77 µmol/m²   |              |
| 60  |  | 10,6 µmol/m²   | 29 µmol/m²   | 47 µmol/m²   |              |
| Output Reduction Approx. Due to cover   | 5% - 10%   |  |              |              |              |
| Viewing Angle (θ)   | 120 ±5°  |  |              |              |              |
| <i>Keep the LED Fixture within operating temperatures, for more information about heat management, read the 'Luxalight modular LED Fixtures infosheet'.</i> |  |  |              |              |              |

| Additional Benefits of LuxaLight Industrial LED Fixture |   |
|---|---|
| Benefits of LED Fixture                                 | Multiple wavelengths in one housing   |
|   | No optics required due to high output   |
|   | Applicable in Humid environments (PU Version)   |
|   | Custom cable output and/or connector  |
|   | Wide range of mounting options  |
|   | In-house expertise to personally advice on LED fixture customization                    |
|   | *By using the pulse mode in combination with real-time monitoring extremely high output |
|   | *Different wavelenghts in one fixture that can be controlled/pulsed separately          |

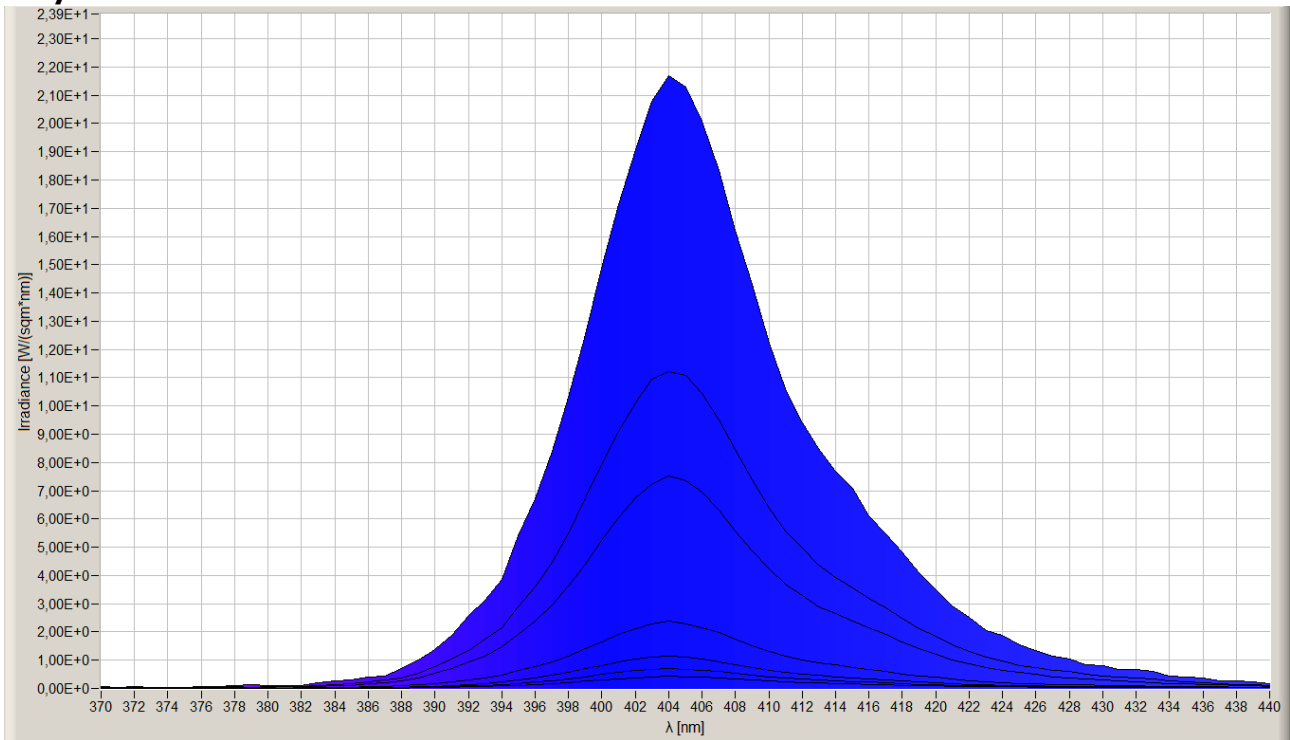
## Radiance Drop-off by distance at 24V



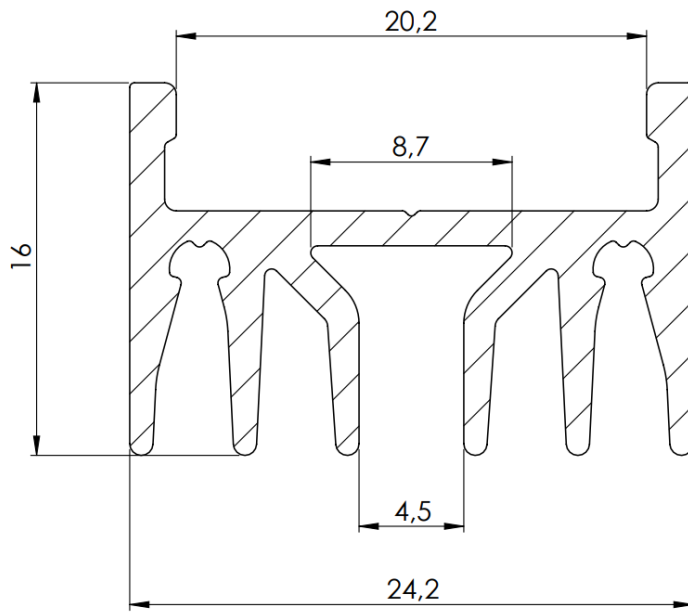
## µmol/m² Drop-off by distance at 24V



## Polyurethane at 24V

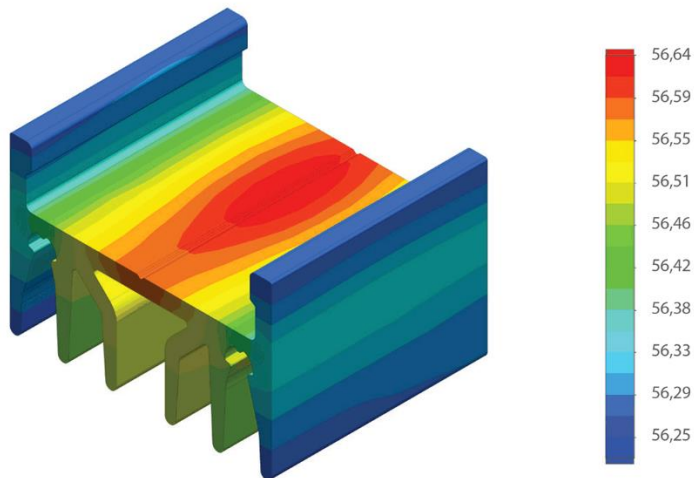


## Dimensions



## Temperature distribution

Temperature (Solid) [°C]  
 Temperature ambient: 25°C  
 Total power: 36 W/m



**Certificate of Conformity:**

EC Council Directive 2004/108/EC  
Electromagnetic Compatibility

**Complies to the standards:**

- NEN-EN-IEC 61000-3-2:2019/A1:2021
- NEN-EN-IEC 61000-3-3:2013+A1:2017+A2:2021
- NEN-EN-IEC 61547:2009

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