

Last information update: March 2025

**Product configuration: RZ81.G2**

RZ81.G2: Module for Superrail 48V track - DALI - UGR&lt;19 - L=1828 - - 13.8W 1819lm - 3500K - CRI 90 - Black/White Transparent

**Product code**

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**Technical description**

Linear lighting product with 3500K CRI90 monochrome LED complete with adapter for installation on a Superrail 48V track. UGR<19 luminaire with controlled luminance ( $L \leq 3000 \text{ cd/m}^2$ ) ideal for environments with video screen use. Opti-Diamond Space optic available in a White Cover (Transparent white) or Black Cover (Transparent black) version. The adapter made of a thermoplastic material includes the DC/DC driver circuit with a DALI dimmable function. Integrated «power line» technology allows each light module on the track to be adjusted separately. Frameless version main body made of extruded aluminium. A rapid tool-free system for connecting the adapter electrically and mechanically to the track.

**Installation**

Mechanical fastening with adapter on a Superrail 48V track

**Colour**

Black/White Transparent (G2)

**Weight (Kg)**

1.03

**Mounting**

Low voltage track

**Wiring**

Integrated DC/DC LED driver in adapter - direct connection on 48V track. Track power supply unit to be ordered separately.

Complies with EN60598-1 and pertinent regulations

**Technical data**

|  |       |                                       |   |
|--|-------|---------------------------------------|---|
| lm system:   | 1819  | Life Time LED 1:                      | > 50,000h - L90 - B10 (Ta 25°C)         |
| W system:  | 13.8  | Voltage [Vin]:                        | 48                                      |
| lm source:   | 2140  | Lamp code:                            | LED                                     |
| W source:  | 12    | Number of lamps for optical assembly: | 1                                       |
| Luminous efficiency (lm/W, real value):            | 131.8 | ZVEI Code:                            | LED                                     |
| lm in emergency mode:                              | -     | Number of optical assemblies:         | 1                                       |
| Total light flux at or above an angle of 90° [Lm]: | 35    | LED current [mA]:                     | 36                                      |
| Light Output Ratio (L.O.R.) [%]:                   | 85    | Power factor:                         | See installation instructions           |
| CRI (minimum):                                     | 90    | Minimum dimming %:                    | 5                                       |
| Colour temperature [K]:                            | 3500  | Overvoltage protection:               | 2kV Common mode & 1kV Differential mode |
| MacAdam Step:                                      | 3     | Control:                              | DALI                                    |

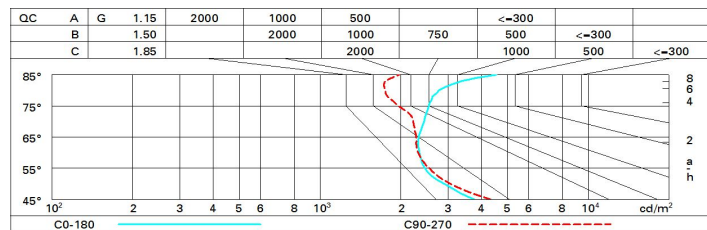
**Polar**

|  |  |     |     |     |      |
|--|--|-----|-----|-----|------|
|  | <b>CIE</b><br>nL 0.85<br>89-96-99-98-85<br>UGR 15.9-15.1<br><b>DIN</b><br>A.61<br><b>UTE</b><br>0.83A+0.02T<br>F*1=893<br>F*1+F*2=964<br>F*1+F*2+F*3=989 |     |     |     |      |
|  | <b>Lux</b>   |     |     |     |      |
|  | h  | d1  | d2  | Em  | Emax |
|  | 2  | 2.3 | 2.3 | 342 | 432  |
|  | 4  | 4.7 | 4.6 | 85  | 108  |
|  | 6  | 7   | 6.9 | 38  | 48   |
|  | 8  | 9.3 | 9.2 | 21  | 27   |

# Utilisation factors

| R    | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
|------|----|----|----|----|----|----|----|----|-----|
| K0.8 | 72 | 67 | 63 | 61 | 66 | 63 | 62 | 59 | 70  |
| 1.0  | 76 | 71 | 68 | 65 | 70 | 67 | 67 | 63 | 76  |
| 1.5  | 81 | 77 | 74 | 72 | 76 | 73 | 72 | 69 | 83  |
| 2.0  | 84 | 81 | 79 | 77 | 80 | 78 | 77 | 73 | 88  |
| 2.5  | 86 | 84 | 82 | 80 | 82 | 80 | 79 | 76 | 91  |
| 3.0  | 87 | 85 | 84 | 83 | 84 | 82 | 81 | 78 | 94  |
| 4.0  | 88 | 87 | 86 | 85 | 85 | 84 | 83 | 80 | 96  |
| 5.0  | 89 | 88 | 87 | 87 | 86 | 85 | 84 | 81 | 97  |

# Luminance curve limit



# UGR diagram

| Corrected UGR values (at 2140 lm bare lamp luminous flux)     |      |                     |      |      |      |      |                   |      |      |      |      |
|---|------|---------------------|------|------|------|------|-------------------|------|------|------|------|
| Riflect.:<br>ceil/cav<br>walls<br>work pl.<br>Room dim<br>x y |      | 0.70                | 0.70 | 0.50 | 0.50 | 0.30 | 0.70              | 0.70 | 0.50 | 0.50 | 0.30 |
|   |      | 0.50                | 0.30 | 0.50 | 0.30 | 0.30 | 0.50              | 0.30 | 0.50 | 0.30 | 0.30 |
|   |      | 0.20                | 0.20 | 0.20 | 0.20 | 0.20 | 0.20              | 0.20 | 0.20 | 0.20 | 0.20 |
|   |      | viewed<br>crosswise |      |      |      |      | viewed<br>endwise |      |      |      |      |
| 2H  | 2H   | 14.1                | 14.7 | 14.4 | 15.0 | 15.3 | 14.4              | 15.0 | 14.7 | 15.3 | 15.6 |
|   | 3H   | 14.5                | 15.1 | 14.9 | 15.4 | 15.7 | 14.4              | 14.9 | 14.7 | 15.2 | 15.6 |
|   | 4H   | 14.8                | 15.4 | 15.2 | 15.7 | 16.0 | 14.3              | 14.9 | 14.7 | 15.2 | 15.5 |
|   | 6H   | 15.1                | 15.7 | 15.5 | 16.0 | 16.4 | 14.3              | 14.8 | 14.7 | 15.1 | 15.5 |
|   | 8H   | 15.3                | 15.8 | 15.7 | 16.2 | 16.6 | 14.3              | 14.8 | 14.7 | 15.1 | 15.5 |
|   | 12H  | 15.6                | 16.1 | 16.0 | 16.4 | 16.8 | 14.2              | 14.7 | 14.6 | 15.1 | 15.5 |
| 4H  | 2H   | 14.1                | 14.6 | 14.4 | 14.9 | 15.3 | 14.8              | 15.4 | 15.2 | 15.7 | 16.1 |
|   | 3H   | 14.7                | 15.1 | 15.1 | 15.5 | 15.9 | 15.0              | 15.4 | 15.4 | 15.8 | 16.2 |
|   | 4H   | 15.1                | 15.5 | 15.5 | 15.9 | 16.3 | 15.0              | 15.5 | 15.5 | 15.9 | 16.3 |
|   | 6H   | 15.6                | 15.9 | 16.0 | 16.4 | 16.8 | 15.1              | 15.5 | 15.6 | 15.9 | 16.4 |
|   | 8H   | 15.9                | 16.2 | 16.4 | 16.7 | 17.1 | 15.1              | 15.5 | 15.6 | 15.9 | 16.4 |
|   | 12H  | 16.3                | 16.6 | 16.8 | 17.0 | 17.5 | 15.1              | 15.4 | 15.6 | 15.9 | 16.4 |
| 8H  | 4H   | 15.2                | 15.5 | 15.6 | 16.0 | 16.4 | 15.3              | 15.7 | 15.8 | 16.1 | 16.6 |
|   | 6H   | 15.8                | 16.1 | 16.3 | 16.6 | 17.1 | 15.5              | 15.8 | 16.0 | 16.3 | 16.8 |
|   | 8H   | 16.2                | 16.5 | 16.8 | 17.0 | 17.5 | 15.6              | 15.8 | 16.1 | 16.3 | 16.9 |
|   | 12H  | 16.8                | 17.0 | 17.4 | 17.6 | 18.1 | 15.7              | 15.9 | 16.3 | 16.4 | 17.0 |
| 12H   | 4H   | 15.2                | 15.5 | 15.6 | 15.9 | 16.4 | 15.4              | 15.7 | 15.9 | 16.2 | 16.7 |
|   | 6H   | 15.9                | 16.1 | 16.4 | 16.6 | 17.1 | 15.6              | 15.9 | 16.2 | 16.4 | 16.9 |
|   | 8H   | 16.3                | 16.6 | 16.9 | 17.1 | 17.6 | 15.8              | 16.0 | 16.3 | 16.5 | 17.1 |
| Variations with the observer position at spacing:             |      |                     |      |      |      |      |                   |      |      |      |      |
| S =   | 1.0H | 1.8 / -1.1          |      |      |      |      | 2.3 / -1.7        |      |      |      |      |
|   | 1.5H | 3.5 / -1.3          |      |      |      |      | 4.4 / -2.0        |      |      |      |      |
|   | 2.0H | 5.1 / -1.4          |      |      |      |      | 6.1 / -2.1        |      |      |      |      |