

**Project 1**

OliNo Energy BV

 Operator Marcel van der Steen  
 Telephone  
 Fax  
 e-Mail

**Reliable Led 001 Ledpaneel op 460mA / UGR-Table**

Luminaire: Reliable Led 001 Ledpaneel op 460mA

Lamps: 1 x LED

| <b>Glare Evaluation According to UGR</b>                         |     |   |      |      |      |      |  |      |      |      |      |
|--|-----|---|------|------|------|------|--|------|------|------|------|
| $\rho$ Ceiling   |     | 70  | 70   | 50   | 50   | 30   | 70   | 70   | 50   | 50   | 30   |
| $\rho$ Walls   |     | 50  | 30   | 50   | 30   | 30   | 50   | 30   | 50   | 30   | 30   |
| $\rho$ Floor   |     | 20  | 20   | 20   | 20   | 20   | 20   | 20   | 20   | 20   | 20   |
| Room Size<br>X Y   |     | Viewing direction at right angles<br>to lamp axis |      |      |      |      | Viewing direction parallel<br>to lamp axis |      |      |      |      |
| 2H   | 2H  | 25.5  | 26.8 | 25.8 | 27.1 | 27.3 | 25.5                                       | 26.9 | 25.8 | 27.1 | 27.4 |
|  | 3H  | 27.4  | 28.6 | 27.7 | 28.9 | 29.1 | 27.5                                       | 28.7 | 27.8 | 29.0 | 29.2 |
|  | 4H  | 28.0  | 29.2 | 28.4 | 29.5 | 29.8 | 28.1                                       | 29.3 | 28.5 | 29.6 | 29.9 |
|  | 6H  | 28.5  | 29.6 | 28.9 | 29.9 | 30.2 | 28.6                                       | 29.7 | 29.0 | 30.0 | 30.3 |
|  | 8H  | 28.7  | 29.7 | 29.0 | 30.0 | 30.4 | 28.8                                       | 29.8 | 29.1 | 30.1 | 30.4 |
|  | 12H | 28.7  | 29.7 | 29.1 | 30.1 | 30.4 | 28.8                                       | 29.8 | 29.2 | 30.1 | 30.5 |
| 4H   | 2H  | 26.1  | 27.3 | 26.4 | 27.6 | 27.8 | 26.2                                       | 27.3 | 26.5 | 27.6 | 27.9 |
|  | 3H  | 28.2  | 29.2 | 28.6 | 29.5 | 29.9 | 28.3                                       | 29.3 | 28.7 | 29.6 | 29.9 |
|  | 4H  | 29.0  | 29.9 | 29.4 | 30.3 | 30.6 | 29.1                                       | 30.0 | 29.5 | 30.3 | 30.7 |
|  | 6H  | 29.7  | 30.4 | 30.1 | 30.8 | 31.2 | 29.7                                       | 30.5 | 30.1 | 30.9 | 31.3 |
|  | 8H  | 29.8  | 30.5 | 30.3 | 30.9 | 31.4 | 29.9                                       | 30.6 | 30.3 | 31.0 | 31.4 |
|  | 12H | 29.9  | 30.6 | 30.4 | 31.0 | 31.4 | 30.0                                       | 30.6 | 30.5 | 31.1 | 31.5 |
| 8H   | 4H  | 29.3  | 30.0 | 29.8 | 30.4 | 30.9 | 29.4                                       | 30.1 | 29.8 | 30.5 | 30.9 |
|  | 6H  | 30.1  | 30.7 | 30.6 | 31.1 | 31.6 | 30.2                                       | 30.8 | 30.6 | 31.2 | 31.6 |
|  | 8H  | 30.4  | 30.9 | 30.8 | 31.3 | 31.8 | 30.4                                       | 30.9 | 30.9 | 31.4 | 31.9 |
|  | 12H | 30.5  | 30.9 | 31.0 | 31.4 | 31.9 | 30.6                                       | 31.0 | 31.1 | 31.5 | 32.0 |
| 12H  | 4H  | 29.4  | 30.0 | 29.8 | 30.4 | 30.9 | 29.4                                       | 30.1 | 29.9 | 30.5 | 30.9 |
|  | 6H  | 30.2  | 30.7 | 30.7 | 31.1 | 31.6 | 30.2                                       | 30.7 | 30.7 | 31.2 | 31.7 |
|  | 8H  | 30.5  | 30.9 | 30.9 | 31.4 | 31.9 | 30.5                                       | 30.9 | 31.0 | 31.4 | 31.9 |
| Variation of the observer position for the luminaire distances S |     |   |      |      |      |      |  |      |      |      |      |
| S = 1.0H   |     | +0.1 / -0.1                                       |      |      |      |      | +0.1 / -0.1                                |      |      |      |      |
| S = 1.5H   |     | +0.2 / -0.3                                       |      |      |      |      | +0.2 / -0.3                                |      |      |      |      |
| S = 2.0H   |     | +0.3 / -0.6                                       |      |      |      |      | +0.3 / -0.6                                |      |      |      |      |
| Standard table   |     | BK06  |      |      |      |      | BK06                                       |      |      |      |      |
| Correction<br>Summand  |     | 9.3   |      |      |      |      | 9.4  |      |      |      |      |
| Corrected Glare Indices referring to 3084lm Total Luminous Flux  |     |   |      |      |      |      |  |      |      |      |      |

The UGR values have been calculated according to CIE Publ. 117 Spacing-to-Height-Ratio = 1.00.