# Product Information Sheet

COMMISSION DELEGATED REGULATION (EU) 2019/2015 with regard to energy labelling of light sources

**Supplier's name or trade mark:** ELMARK

**Supplier's address:** ELMARK INDUSTRIES SC, bul.Dobrudja 2, 9300 Dobrich Dobrich, BG

**Model identifier:** 99LED645

**Type of light source:**

| | | | |
|---|---|---|---|
| Lighting technology used: | LED | Non-directional or directional: | DLS |
| Light source cap-type (or other electric interface) | Integrated LED | | |
| Mains or non-mains: | MLS | Connected light source (CLS): | Yes |
| Colour-tuneable light source: | No | Envelope: | - |
| High luminance light source: | Yes | | |
| Anti-glare shield: | No | Dimmable: | No |

**Product parameters**

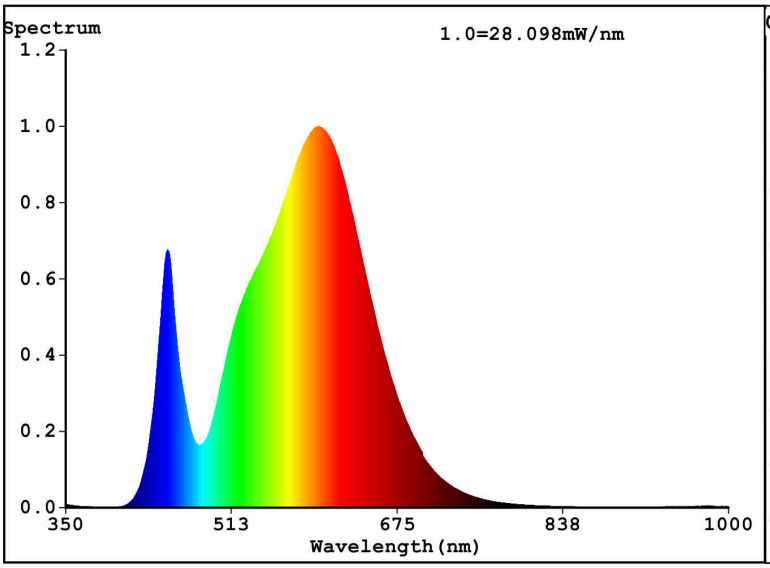
| Parameter | | Value | Parameter | Value |
|---|---|---|---|---|
| **General product parameters:** | | | | |
| Energy consumption in on-mode (kWh/1000 h), rounded up to the nearest integer | | 18 | Energy efficiency class | F |
| Useful luminous flux (ϕuse), indicating if it refers to the flux in a sphere (360º), in a wide cone (120º) or in a narrow cone (90º) | | 1 460 in Wide cone (120°) | Correlated colour temperature, rounded to the nearest 100 K, or the range of correlated colour temperatures, rounded to the nearest 100 K, that can be set | 3 000 |
| On-mode power ($P_{on}$), expressed in W | | 18,9 | Standby power ($P_{sb}$), expressed in W and rounded to the second decimal | 0,20 |
| Networked standby power ($P_{net}$) for CLS, expressed in W and rounded to the second decimal | | 0,20 | Colour rendering index, rounded to the nearest integer, or the range of CRI-values that can be set | 79 |
| Outer dimensions without separate control gear, lighting control | Height | 200 | Spectral power distribution in the range 250 nm to 800 nm, at full-load | See image in last page |
| | Width | 200 | | |
| | Depth | 40 | | |

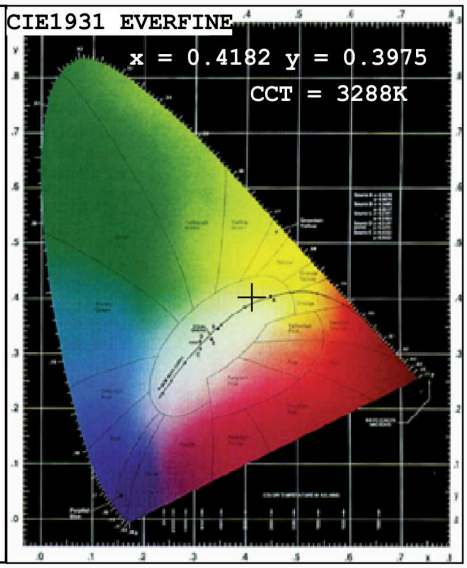
| | | | | |
|---|---|---|---|---|
| parts and non-lighting control parts, if any (millimetre) | | | | |
| Claim of equivalent power[(a)] | | - | If yes, equivalent power (W) | - |
| | | | Chromaticity coordinates (x and y) | 0,418<br>0,395 |
| **Parameters for directional light sources:** | | | | |
| Peak luminous intensity (cd) | | 546 | Beam angle in degrees, or the range of beam angles that can be set | 107 |
| **Parameters for LED and OLED light sources:** | | | | |
| R9 colour rendering index value | | 0 | Survival factor | 0,50 |
| the lumen maintenance factor | | 0,93 | | |
| **Parameters for LED and OLED mains light sources:** | | | | |
| displacement factor (cos ϕ1) | | 0,90 | Colour consistency in McAdam ellipses | 5 |
| Claims that an LED light source replaces a fluorescent light source without integrated ballast of a particular wattage. | | -[(b)] | If yes then replacement claim (W) | - |
| Flicker metric (Pst LM) | | 0,4 | Stroboscopic effect metric (SVM) | 0,6 |

[(a)] '-' : not applicable;

[(b)] '-' : not applicable;

# Spectrum Test Report




## Color Parameters:

Chromaticity Coordinate:x=0.4182 y=0.3975/u'=0.2412 v'=0.5160

CCT=3288K(Duv=0.0003) Dominant WL:Ld =581.5nm Purity=44.8%

Ratio:R=20.7% G=76.9% B=2.4%¡¡Peak WL:Lp=599.1nm FWHM=136.2nm

Render Index:Ra=79.4

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| R1 =77 | R2 =86 | R3 =94 | R4 =78 | R5 =77 | R6 =81 | R7 =84 | |
| R8 =58 | R9 =0 | R10=68 | R11=75 | R12=59 | R13=79 | R14=96 | R15=71 |

## Photo Parameters:

Flux = 1469 lm Eff. : 77.59 lm/W Fe = 4.387 W

## Electrical parameters:

V = 229.96 V I = 0.08650 A P = 18.94 W PF = 0.9520

WHITE:ANSI_3500K

Status: Integral T = 36 ms Ip = 50737 (77%)

| | |
|---|---|
| Model:LED GLASS PANEL SQUARE/18W | Number:99LED645 |
| Tester:Petya Marinova | Date:2017-10-03 15:55 |
| Temperature:25.3Deg | Humidity:65.0% |
| Manufacturer:ELMARK | Remarks:O17V028A_3988 |