# **Product Information Sheet**

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

| sources  | PELEGATED REGUL  | -AITON (EU) 2019/2            | 015 with regard to energ   | gy labelling of light |
|--|------------------|-------------------------------|--|-----------------------|
| Supplier's name  | e or trade mark: | ELMARK                        |  |                       |
| Supplier's addre   | ess: ELMARK IND  | USTRIES SC, bul.Dol           | brudja 2, 9300 Dobrich I   | Dobrich, BG           |
| Model identifie  | er: 93TLOM180W   | /BL                           |  |                       |
| Type of light so   | urce:            |                               |  |                       |
| Lighting techno  | logy used:       | LED                           | Non-directional or directional:  | DLS                   |
| Light source cap<br>(or other electri  | • •              | Integrated LED                |  |                       |
| Mains or non-m   | nains:           | MLS                           | Connected light source (CLS):  | No                    |
| Colour-tuneable  | e light source:  | No                            | Envelope:  | -                     |
| High luminance   | light source:    | No                            |  |                       |
| Anti-glare shield  | d:               | No                            | Dimmable:  | No                    |
|  |                  | Product para                  |  |                       |
| Parameter  |                  | Value                         | Parameter  | Value                 |
|  |                  | General product p             |  | Ι                     |
| Energy consumption in on-<br>mode (kWh/1000 h), rounded<br>up to the nearest integer   |                  | 20                            | Energy efficiency class  | F                     |
| Useful luminous flux (φuse), indicating if it refers to the flux in a sphere (360°), in a wide cone (120°) or in a narrow cone (90°) |                  | 1 800 in Narrow<br>cone (90°) | 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 | 4 000                 |
| On-mode power (P <sub>on</sub> ), expressed in W   |                  | 20,2                          | Standby power (P <sub>sb</sub> ),<br>expressed in W<br>and rounded to the<br>second decimal  | 0,00                  |
| Networked standby power (P <sub>net</sub> ) for CLS, expressed in W and rounded to the second decimal                                |                  | -                             | Colour rendering index, rounded to the nearest integer, or the range of CRI-values that can be set   | 81                    |
| Outer  | Height           | 130                           | Spectral power   | See image             |
| dimensions   | Width            | 130                           | distribution in the  | in last page          |
| without  | Depth            | 98                            |  | Page 1 /              |

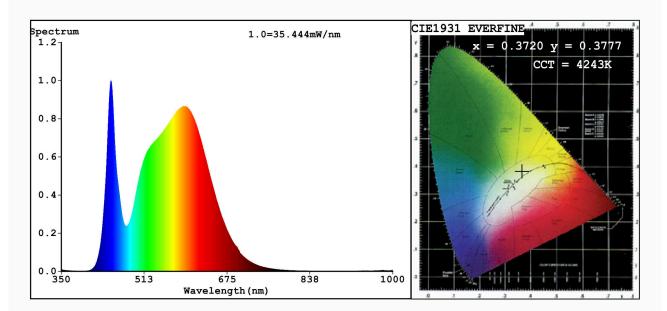
| separate control gear, lighting control parts   |                     | range 250 nm to 800<br>nm, at full-load                            |       |
|---|---------------------|--|-------|
| and non-<br>lighting  |                     |  |       |
| control parts,  |                     |  |       |
| if any  |                     |  |       |
| (millimetre)  |                     |  |       |
| Claim of equivalent power <sup>(a)</sup>  | -                   | If yes, equivalent power (W)                                       | -     |
|   |                     | Chromaticity   | 0,372 |
|   |                     | coordinates (x and y)  | 0,377 |
| Parameters for directional light  | sources:            |  |       |
| Peak luminous intensity (cd)  | 447                 | Beam angle in degrees, or the range of beam angles that can be set | 24    |
| Parameters for LED and OLED lig   | ght sources:        | ,  |       |
| R9 colour rendering index value   | 2                   | Survival factor  | 0,50  |
| the lumen maintenance factor  | 0,93                |  |       |
| Parameters for LED and OLED m   | ains light sources: |  |       |
| displacement factor (cos φ1)  | 0,90                | Colour consistency in McAdam ellipses                              | 0     |
| 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)   | 0,0                 | Stroboscopic effect metric (SVM)                                   | 0,0   |

(a)<sub>'-'</sub> : not applicable;

(b)<sub>'-'</sub> : not applicable;



### Spectrum Test Report



#### Color Parameters:

 $\label{eq:chromaticity} Coordinate: x=0.3720 \quad y=0.3777/u'=0.2192 \quad v'=0.5008 \\ \text{CCT=4243K} \text{(Duv=0.0030)} \quad \text{Dominant WL:Ld} \quad =576.3 \\ \text{nm} \quad \text{Purity=25.0\%}$ 

 ${\tt Ratio:R=17.2\%~G=79.3\%~B=3.5\%_{\cite{1.5}}Peak~WL:Lp=447.5nm~FWHM=22.6nm}$ 

Render Index:Ra=81.6

R1 =79 R2 =86 R3 =93 R4 =82 R5 =80 R6 =82 R7 =86

R8 =64 R9 =2 R10=68 R11=81 R12=61 R13=81 R14=96 R15=73

#### Photo Parameters:

Flux = 1831 lm Eff. : 90.31 lm/W Fe = 5.521 W

## Electrical parameters:

V = 229.82 V I = 0.09686 A P = 20.28 W PF = 0.9109

WHITE: ANSI 4000K

Status: Integral T = 31 ms Ip = 48915 (75%)

Model:SKY TLOM180 COB/20W Number:93TLOM180W/GR Tester:Petya Marinova Date:2018-02-16 10:24

Temperature: 25.3Deg Humidity: 65.0%

Manufacturer: ELMARK Remarks: 017V055À 4281