

# Luma Solar Shingle 100 Watt

## High Efficiency Monocrystalline Solar Shingle



### Features

- ▶ Complete solar roofing system that seamlessly blends solar shingles with non-solar metal shingles
- ▶ Installs like traditional metal roofing
- ▶ Designed for air flow and wire harnesses under the solar shingles
- ▶ Only one penetration is required for the wires to go through the roof deck
- ▶ Solar cells have high conversion efficiencies resulting in superior power output performance
- ▶ Outstanding power output even in low light or high temperature conditions
- ▶ The "Luma Solar Kits" can be integrated with all roofing material

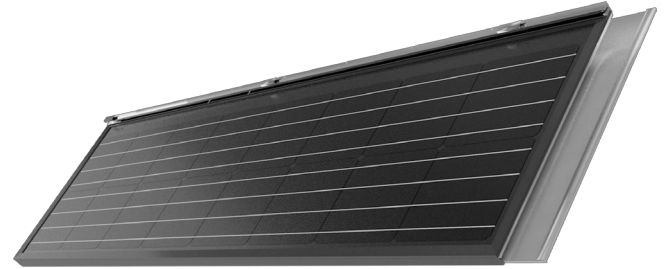
### Mechanical Data

|                        |                                          |
|------------------------|------------------------------------------|
| Exposed Area Installed | L 54" x W 16.5"                          |
| Weight                 | 7.1 kg                                   |
| Static wind load       | 2400 Pa                                  |
| Static snow load       | 5400 Pa                                  |
| Cell Type              | Monocrystalline                          |
| Solar Cells            | 28 Half-Cells                            |
| Bypass Diode           | SCHOTTKY Diodes (PST5040D)               |
| Junction Box           | FT56XY (UL E312261) Rating: 1000 V, 20 A |
| Potting                | DOWSIL™ 3-4207 Dielectric Tough Gel      |
| Frame                  | 0.063" Extruded Aluminum                 |

### Additional Ratings

|                                 |                         |
|---------------------------------|-------------------------|
| Fire Resistance Rating (UL 790) | Class C                 |
| Roof Impact Rating (UL 2218)    | Class 1                 |
| Wind Resistance (UL 1897)       | 115 lbs/ft <sup>2</sup> |
| Point-Load Rating (UL 7103)     | 200 lbs                 |
| Load Rating                     | 30 lbs/ft <sup>2</sup>  |
| Min Diode Current, Rating (A)   | 40                      |
| Min Field Wire Temp Rating (°C) | 90                      |

### Dimensions



L 56" x W 17.4375" x H 1.625"

### Electrical Data (STC\*)

|                                              |               |
|----------------------------------------------|---------------|
| Model No.                                    | LRSS28-100A   |
| Maximum Power (P <sub>max</sub> ) (W)        | 100 ±3%       |
| Maximum Power Voltage (V <sub>mp</sub> ) (V) | 7.80          |
| Maximum Power Current (I <sub>mp</sub> ) (A) | 12.82         |
| Open Circuit Voltage (V <sub>oc</sub> ) (V)  | 9.73          |
| Short Circuit Current (I <sub>sc</sub> ) (A) | 13.35         |
| Maximum DC System Voltage (V) US             | 600           |
| Maximum Series Fuse Rating (A)               | 25            |
| Efficiency (%)                               | 22.1          |
| Operating Temperature                        | -40°C ~ +85°C |

\*Standard Test Conditions: 1000W/m<sup>2</sup> at an Air Mass of 1.5 and cell temperature of 25°C

### Temperature Coefficients

(% change/deg. K (C) rise)

|                  |         |
|------------------|---------|
| NOCT             | 45 ±2°C |
| P <sub>max</sub> | -0.36   |
| V <sub>oc</sub>  | -0.28   |
| I <sub>sc</sub>  | -0.044  |

### Warranty & Certifications

#### Warranty

- 25 year limited power warranty at 80%
- 5 year limited product warranty

#### Certifications

- UL 7103, UL 61730-1, UL 61730-2
- Available Listings: UL, CEC