The sun is an inexhaustive, reliable, non-polluting source of power. Concerns over global climatic change, local air pollution and resource scarcity make photovoltaic (PV) an increasingly attractive energy supply technology. Using solar energy with LEDs instead of CFL provides a very efficient solution. Solar powered outdoor lighting products are ideal for lighting the area in remote locations where the electricity is unavailable or erratic. Even in urban areas, these find great usage to reduce dependency on conventional power and contribute towards green energy. Reliable and long life makes this solution effective in fulfilling our present and future lighting requirements.

Solar LED street lighting

GreenLine 43W
Minigreen 21W, 28W
GreenLine Smart 12W, 15W, 20W
Selina 8W, 15W
Benefits

- No line voltage, trenching, or metering
- No power outages
- Battery backup for cloudy or rainy days
- Independent power and light source - no two systems are connected, hence no single point of failure.
- Easy to install
- No maintenance except for the battery
- No cost of transformers or meters to be added for electric service
- Quality for savings from various state taxes and incentives
- No monthly electric bills
- Controlled charging to prolong battery service life
- Long-life PV modules with more than 25 years of power generation capacity
- Environment friendly - 100% powered by the sun, solar panels reduce fossil fuel consumption, eliminating pollution
- IP 65 Luminaire ensures long lasting and consistent high performance
- Self-contained solution - Light on/off controlled by automatic daylight sensing
- No running cost
- Better and long life light source - LED lights feature white light without flickering and instant on.
- Safe 12/24 volt circuit, no risk of electric shock

<table>
<thead>
<tr>
<th>Philips Solution</th>
<th>Advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luminaire</td>
<td>Strong and safe</td>
</tr>
<tr>
<td>LEDs for light source</td>
<td>Excellent heat dissipation IP66 protection</td>
</tr>
<tr>
<td>Optics</td>
<td>High brightness and high efficacy of more than 100lm/W</td>
</tr>
<tr>
<td>High efficiency driver &amp; MPPT charge controller</td>
<td>Optical engineering for uniform light distribution</td>
</tr>
<tr>
<td>Solar panel</td>
<td>Low power consumption meets IEC standards</td>
</tr>
<tr>
<td>Polycrystalline solar cells</td>
<td>Mature technology</td>
</tr>
<tr>
<td>Tubular construction</td>
<td>Improving Efficiency</td>
</tr>
<tr>
<td>More Rugged</td>
<td>Ease of availability</td>
</tr>
<tr>
<td>Long Life</td>
<td>Long Life</td>
</tr>
<tr>
<td>Polymer/Galvanised battery box</td>
<td>Weather-proof</td>
</tr>
<tr>
<td>75% Depth of Discharge</td>
<td>Long back-up ideal for cloudy conditions</td>
</tr>
<tr>
<td>Battery</td>
<td>Low discharge rate</td>
</tr>
<tr>
<td>Tubular construction</td>
<td>Ideal for Tropical conditions</td>
</tr>
<tr>
<td>Long Life</td>
<td>Low Maintenance</td>
</tr>
<tr>
<td>3 days autonomy</td>
<td>Long Life</td>
</tr>
<tr>
<td>Battery</td>
<td>Polymer/Galvanised battery box</td>
</tr>
<tr>
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</tr>
<tr>
<td>System</td>
<td>All the components are optimized for maximum energy efficiency with lowest sizing</td>
</tr>
</tbody>
</table>

Philips LED Added solution benefits
Applications

- Street Lighting
- Roadway Lighting
- Pathway Lighting
- Ramp Lighting
- Sidewalk Lighting
- Private Road Lighting
- Farm Lighting
- Wildlife Area Lighting
- Perimeter Security Lighting
- Park Lighting
- Gate Lighting
- Railway Yard Lighting
- Fence Lighting
- Campus Lighting
- Ship Dock Lighting
- Remote Area Lighting
- Military Base Lighting
- Jogging Path Lighting

Options available

Twin arm option

Hybrid charger

Only A-brand quality mono- and poly-crystalline silicon solar panels with high efficiency and long lifetime are used.

Highly efficient controller to charge your batteries and intelligent microprocessor controlled algorithms for light management ensure maximum uptime.

Specific deep discharge batteries are used to store the energy, provide energy for immediate requirements, and enable a back-up for days when there is little or no sun.

Microprocessor managed algorithms autonomously determine sunrise and sunset.

System constituents with integrated MPPT Charge controller and LED driver

<table>
<thead>
<tr>
<th>Model No.</th>
<th>System Wattage</th>
<th>System Lumen</th>
<th>Dimming 40% 6hrs full on, 60% on wattage</th>
<th>HYB (2 days Autonomy)</th>
<th>Dimming 40% (40% dimming) * HYB (2 days autonomy)</th>
<th>Pole Oct</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRP 202* (Selina)</td>
<td>8</td>
<td>725</td>
<td>40</td>
<td>40</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>BRP 202** (Selina)</td>
<td>15</td>
<td>1150</td>
<td>80</td>
<td>75</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>BRP 402 (Minigreen)</td>
<td>21</td>
<td>1800</td>
<td>100</td>
<td>100</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>BRP 402 (Minigreen)</td>
<td>28</td>
<td>2300</td>
<td>NA</td>
<td>NA</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>BRP 403 (Greenline)</td>
<td>43</td>
<td>3500</td>
<td>100x2</td>
<td>100x2</td>
<td>80x2</td>
<td>80x2</td>
</tr>
</tbody>
</table>

*BRP 202 meets 8W MNRE requirements
**BRP 202 T5W R050 approved

System constituents with integrated PWM Charger and Driver

<table>
<thead>
<tr>
<th>Model No.</th>
<th>System Wattage</th>
<th>System Lumen</th>
<th>(3 Days autonomy)</th>
<th>Pole</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRP 020 (Greenline Smart)</td>
<td>12</td>
<td>970</td>
<td>60</td>
<td>4</td>
</tr>
<tr>
<td>BRP 020 (Greenline Smart)</td>
<td>15</td>
<td>1200</td>
<td>75</td>
<td>5</td>
</tr>
<tr>
<td>BRP 020 (Greenline Smart)</td>
<td>20</td>
<td>1350</td>
<td>100</td>
<td>5</td>
</tr>
</tbody>
</table>

Ordering data on request
I must say that Philips Solar LED lighting done at our plant, is one of the best choices we have made.”

Akhilesh Yadav
Factory Manager, Khamgaon Plant, Hindustan Unilever Ltd
Municipal Council
Shahabad, Hardoi, Uttar Pradesh

“Before trying Philips, we tried various competition products. Philips not only provided us a great product, but also trained our local electricians. We are very happy.”

Asif Khan
Chairman, Shahabad Nagar Palika Parishad