




Technical Specification

Fig. 1

	CL-R24W LED quantity: 8*3WPSCS Actual power: 15-24W Power on energy saving mode: 3W Luminous flux: 1000-1500lm Size of lamp: 300mm*200mm*105mm
	CL-R48W LED quantity: 16*3WPSCS Actual power: 30-48W Power on energy saving mode: 5W Luminous flux: 2000-3000lm Size of lamp: 450mm*200mm*105mm
	CL-R96W LED quantity: 32*3WPSCS Actual power: 60-96W Power on energy saving mode: 15W Luminous flux: 4000-6000lm Size of lamp: 650mm*200mm*105mm

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The light unit for the solar powered street light is a 12v LED system in an extruded aluminium housing.

The design allows for the transfer of excess heat through the housing without the need for a cooling fan which reduces the overall energy consumption. The units are available in three power ranges 15-24w, 30-48w and 60-90w. All units have an energy saving mode in which they can operate. This function allows the unit to operate at reduced power with

reduced output and is programmable for both time and light output. The light output compares very favourably to standard streetlights both in colour and brightness (lux). It also has excellent properties with regard to light pollution as the light has a very definite foot print and minimum glare. The units carry a 12 month warranty and have an expected life in excess of 50,000 hours.

Fig. 2

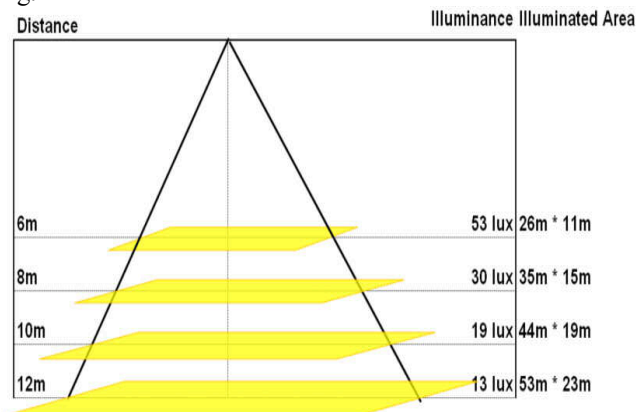


Fig. 2 shows the range and lux of the light unit at a given height

Fig.3

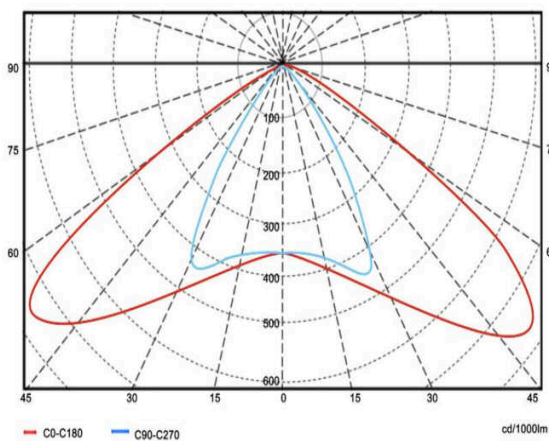


Fig.3 shows the footprint of the of the light unit .

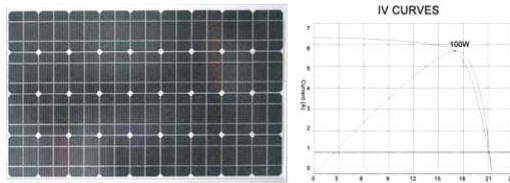
Fig. 4



The charge controller is the brains of the system, it controls the rate at which the battery is charged and it also acts as the switch for the light. When the controller detects no input charge from the solar panel for 10 minutes it switches on the light and when the unit detects no charge for 10 minutes it switches off the

light. It can also act as a timer switch turning on as standard running for a preset time and then switching off.

Fig. 5



The solar panel (PV cell) provides the power for the system during daylight hours and it is the input charge from this which the controller detects. These are over sized to compensate for the difference in running times trough out the year.

Fig. 6



The battery for the light can be LEAD ACID or GEL. We recommend Gel due to the fact that they won't leak even if the battery is damaged. The standard battery is a 100 a/h Gel, however if a Lead Acid battery is used it should be 150a/h due to the fact that the Gel battery can be discharged further without any deterioration.

Fig. 7 shows a standard street light with galvanised post with integrated battery box and brackets. It also shows an optional wind turbine to supplement the solar panel.



Fig. 7