

## Solar Lamp Type B

### Overview

Item	Solar Lamp Type - B
Item Code	4500000047

### Key Points

- AQL is considered a "live" document. IOM staff users of this AQL document must check SharePoint that they have the latest version.

### Description

#### Specifications for Solar Lamp - Type B

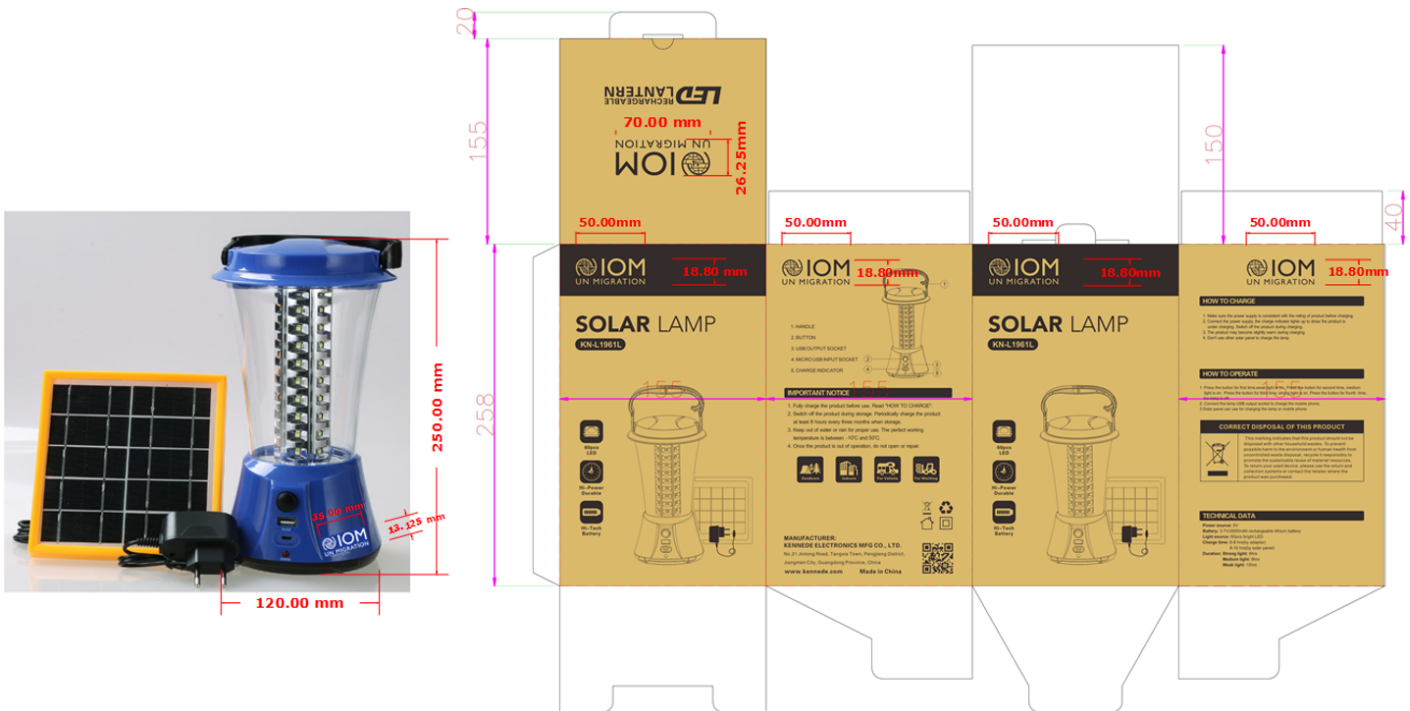
<b>Solar Panel Power</b>	Rechargeable by solar panel and 220V cable. Cable (Type C plug) and charger must be provided with the lamp, charger can be integrated or separate. Optional accessory of adding a Type C to Type A plug adapter.
<b>Full Battery Charge</b>	Twelve (12) hours sunlight. Rechargeable Lithium-ion batteries only. Lithium-ion requires declaration for transport of dangerous goods, under UN3481
<b>Connectors</b>	Female USB outlet, to charge a mobile phone Female Micro-USB inlet for connecting the solar panel or the charger
<b>Features</b>	3 positions, high beam, medium beam, and low beam. Battery charging indicator light.
<b>Charge Cycles</b>	Low Self Discharge, 500+ charges
<b>Material</b>	Casing made of shockproof plastic
<b>Battery Protection</b>	Automatic protection against deep battery discharge and overcharge
<b>Light Output Angle</b>	360 degrees, omni-directional
<b>Charging Outlet (USB-A) Performance</b>	Outlet minimum voltage with no load: 5V Outlet minimum current with load: 0.4A at 4.5V Outlet minimum available energy: 3-5Wh Outlet minimum available energy after 4 hours charge starting from 100% discharged battery: 1Wh
<b>Fixation System</b>	Foldable handle, hook, strap or other mechanism to suspend the lamp e.g. from tent pole or branch

**Specifications for Solar Lamp - Type B**

<b>Packaging</b>	Wrapped in soft cardboard for protection (no 2 plastic bags), packed in an individual strong cardboard box, IATA packaging compliant with lithium-ion batteries regulation
<b>Marking</b>	Recommendation to recycle batteries


All IOM Non-Food Items (NFIs) have been designed, manufactured, and packaged for distribution ensuring minimal impacts on the environment. Through rigorous Quality Assurance processes along with risk and life cycle assessments, NFIs are evaluated holistically throughout their entire life cycle on their impact on the environment and for improved durability to enable reaching beyond their intended service life, hence reducing the need for frequent replacements. IOM NFIs can be recycled and further re-purposed or upcycled to suit multiple uses such as converting to different usage like handbags, car covers, recycled wastewater collection etc.

All unnecessary sub-packaging made of single-use plastics are avoided. When sub-packaging is exceedingly necessary, IOM prefers 100% compostable bio-plastic packaging made from biomass or unbleached, natural-coloured, recycled paper or using paper with FSC forest management certification.



**Key Considerations**

Acceptable Quality Limits (AQL)

 International Organization for Migration (IOM) The UN Migration Agency	<b>AQL</b> <b>Definitions, penalties, <span style="color: red;">Corrective Action Plan</span> and Quality Control</b> <b>rules.</b>	IOMQC-AQLS00V9 Ver9.0 07.08.2023
<b>Nonconformities classification: Critical: C; Major: M; Minor: m</b>		
<b>Definitions:</b>		
<b>Critical nonconformity</b> : Any discrepancy which might harm an user or makes it impossible to use the product properly is considered to be critical. Lots with Critical discrepancy are subject to refusal.		
<b>Major nonconformity</b> : Any discrepancy which makes the use of the product less efficient than expected is considered to be major. Lots with Major discrepancies can be accepted.		
<b>Minor nonconformity</b> : Any discrepancy which does not have an influence on the performance of the product is considered to be minor. Lots with Minor discrepancies can be accepted.		
<b>Non-Conformities classification and related penalties:</b>		
<span style="color: red;"><b><u>Corrective action plan must be implemented by the vendor on its processes, addressing root causes of occurrence (production) and of non-detection of the nonconformity (QC).</u></b></span>		
<b>Critical: (AQL 0)</b>		
Nonconforming characteristic (number of nonconforming items $\geq$ Rejection number. ISO-2859-1) implies a penalty of 10% of the value of the total PO per each critical non-conformity to be charged to the supplier. Determination of lot acceptability is to be decided by IOM.		
<b>Major: (AQL 4.0)</b>		
Nonconforming characteristic (number of nonconforming items $\geq$ Rejection number. ISO-2859-1) implies 0.5% penalty of the value of the total PO per each major non-conformity to be charged to the supplier. Determination of lot acceptability is to be decided by IOM.		
<b>Minor: (AQL 6.5)</b>		
Nonconforming characteristic (number of nonconforming items $\geq$ Rejection number. ISO-2859-1) implies implies 0.25% penalty of the value of the total PO per each minor non-conformity to be charged to the supplier. Determination of lot acceptability is to be decided by IOM.		
<b>Quality Control and Acceptance Quality Level</b>		
<b><u>- The AQLs herein are after IFRC/ICRC with additional parameters on IOM markings and required packaging.</u></b>		
- The Method of testing is drawn from ISO-2859-1 International Standards (table1: Sample size code letters, and table 2-A: Single sampling plans for normal inspection). The samples will be taken randomly by the buyer from the delivered items and then inspected.		
- The buyer can decide either to inspect the lot at IOM QC laboratory or to use an inspection company for analysis, or <u>both</u> . Transport to laboratory and analysis cost for lab testing are at expense of IOM.		
- The vendor can contest the results of the Quality Control done at IOM warehouses by requesting a lab testing. In this case transport to laboratory and analysis cost for lab testing are at expense of the seller.		
- <b>Nonconformity</b> : non-fulfilment of a specified characteristic requirement.		
- <b>Nonconforming item</b> : item with one or more nonconformities.		
- <b>Lot</b> : definite amount of some product, material or service, collected together.		
- <b>Sample</b> : set of one or more items taken from a lot and intended to provide information on the lot.		

## References and Tools

- [Solar Lamp AQL v.9](#)

## Other Entries in this Topic

- [Emergency Relief Items Catalogue](#)

Document last updated: Dec 2023