



Process: QHSE Management  
Category: Global  
Document type: Instruction  
Language: English  
IHT: Internal

## Title: AQL- Solar Lamp

Document ID: SLOG-16-85791  
Document Status: Approved  
Effective date: 7/7/2025  
GDP related: No  
Version: 12.0

### Definitions:

**Critical nonconformity** : Any discrepancy which might harm a user or makes it impossible to use the product properly is considered to be critical. Lots with Critical discrepancies is subject to lot refusal.

**Major nonconformity** : Any discrepancy which makes the use of the product less efficient than expected is considered to be major. Lot with Major discrepancies can be accepted.

**Minor nonconformity** : Any discrepancy which does not have an influence on the performance of the product is considered to be minor. Lot with Minor discrepancies can be accepted.

**Nonconformity**: Non-fulfilment of a specified characteristic requirement.

**Nonconforming item**: Item with one or more nonconformities.

**Lot**: Definite amount of some product, material or service, collected together

**Sample**: Set of one or more items taken from a lot and intended to provide information on the lot

### Non-Conformities and Corrective Action:

#### Critical: (AQL 0)

Determination of lot acceptability: to be decided by ICRC' Quality and buyers.

Continual improvement: Improvement plan to be proposed by supplier and validated by the ICRC to eliminate the root cause of occurrence and non detection for the faced non-conformity (ies) for the upcoming purchases. Actions to be implemented by supplier within a defined time frame by default 3 months.

Penalty: 10% penalty of the value of the total PO per each critical non-conformity to be charged to the supplier .

#### Major: (AQL 4.0)

Determination of lot acceptability: to be decided by ICRC' Quality and buyers.

Continual improvement: Improvement plan to be proposed by supplier and validated by the ICRC to eliminate the root cause of occurrence and non detection for the faced non-conformity (ies) for the upcoming purchases. Actions to be implemented by supplier within a defined time frame by default 3 months.

Penalty: 0.5% penalty of the value of the total PO per each major non-conformity to be charged to the supplier.

#### Minor: (AQL 6.5)

Determination of lot acceptability: to be decided by ICRC' Quality and buyers.

Continual improvement: Improvement plan to be proposed by supplier and validated by the ICRC to eliminate the root cause of occurrence and non detection for the faced non-conformity (ies) for the upcoming purchases. Actions to be implemented by supplier within a defined time frame by default 3 months.

Penalty: 0.25% penalty of the value of the total PO per each minor non-conformity to be charged to the supplier.

### Additional Information:

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 ICRC QC laboratory or to use an inspection company for analysis, or both. Transport to laboratory and analysis cost for lab testing are at expense of ICRC.

The seller can contest the results of the Quality Control done at ICRC warehouses by requesting a lab testing. In this case transport to laboratory and analysis cost for lab testing are at expense of the seller.

In case the ICRC decides to hold the penalties during the improvement plan, if the faced nonconformity(ies) persist ; penalty for each non-conformity faced during the improvement plan will be applied.



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Title: AQL- Integrated Solar Lamp 180°

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Nonconformities classification: Critical: C, Major: M, Minor: m

Items	Characteristics	Nonconformities Classification	QC type	AQL	QC Inspection at ICRC warehouses and lab testing
Packaging	Marking on the primary packaging (individual carton box)	m	Ok/Nok	6.5	Marking and language to be validated by the ICRC for each Purchase order. Standard marking expected: recommendation to recycle batteries + picture of the lamp + instruction on lamp usage.
	Packaging of the primary packaging (individual carton box)	m	Ok/Nok	6.5	Packed in an individual strong recycled cardboard box, Items to not be wrapped in single use plastics IATA packaging compliant with lithium-ion batteries regulation.
	Marking on secondary packaging (marking on the carton box)	m	Ok/Nok	6.5	Marking and language to be validated by the ICRC for each Purchase order. Standard marking clearly marked on 2 sides of the carton: International Committee of the Red Cross; Solar lamps; Total weight: ; Purchase order Number: Label must remain readable after minimum 10 handlings. No supplier logo allowed
	Secondary packaging, box sealing.	m	Ok/Nok	6.5	Box is well sealed with large adhesive tape (50 mm Minimum), secured with 2 straps.
	Secondary packaging, box general quality	m	Ok/Nok	6.5	Wrapped in soft cardboard for protection, Export-quality 5 ply recycled cardboard strong enough to withstand multiple handling and stacking up to 6 m . No holes, no tears.
	Secondary packaging, quantity per parcel	m	Ok/Nok	6.5	As per purchasing contract. Standard 20 lamps per parcel.
Item Specifications	Product Type	C	Ok/Nok	0	Soar Lamp with integrated solar panel known as "all in one"
	Material	M	Ok/Nok	4.0	Product casing made of UV proof plastic.
	Use of recycled material	Depending on the terms of the contract, using material from recycled origin can be either mandatory or preferred. As described by the Circular Plastic Alliance of the EU commission in EN 45557 and the US Federal Trade Commission Green Guides in accordance with ISO14021 principles, recycled plastic includes post-industrial recycled (PIR) and post-consumer recycled (PCR), it excludes reworked material. In this last case, even though using waste from the same production is accepted, it does not count as material from recycled origin. Note that PCR is preferred to PIR.			
	UV proof	M	Measurable	4.0	Repeat drop test after 1500h as per UV exposure under ASTMG154/23, panel side facing the UV source. No break or failure permitted, fading colour authorized
	Casing shock proof	M	Ok/Nok	4.0	To be tested at ambient t° or 25°C and at -20°C (conditioning time: 24h) on the same samples. Result allows scratches, not breaks or any failure. The charged lamp sample is dropped on its six different sides from a height of 1 m onto a level concrete surface and examined for functionality, user safety hazards, and damage.
	Working condition	M	Ok/Nok	4.0	Suitable for 4 seasons, working in cloudy and raining climate. Working temperature -20°C to 60°C, mentioned on the attached certificate.
	Ingress protection	M	Ok/Nok	4.0	Rain and dust resistant as per IP 65. IP class to be indicated on the product and mentioned on the attached certificate
	General quality	M	Ok/Nok	4.0	Up to the highest industry standards, no cracks, no dents, no damage, no sharp edges, etc. A certificate is delivered with each lamp, with all required information in English, Arabic, French, Spanish, and other languages as required per contract.
	Features	M	Ok/Nok	4.0	One button/switch: on/off and 3 light settings (high beam, medium beam and low beam), functional after 2,000 cycles
	Light output angle	M	Ok/Nok	4.0	180 degrees, omnidirectional
	Maintenance	M	Ok/Nok	4.0	Replaceable Battery with basic tool, casing closed by screws
	Battery	C	Ok/Nok	0	Rechargeable by solar panel and by AC charger



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Battery; Capacity	M	Ok/Nok	4.0	Battery capacity to allow the required output from fully charged as per below required performances
Battery; type	C	Ok/Nok	0	Lithium iron phosphate battery (LFP) only
Battery; Safety	C	Ok/Nok	0	Complies with IEC 62133 standard; certified by battery manufacturer, mentioned on the attached certificate
Battery; Charge cycles	M	Measurable	4.0	Minimum 3000 cycles with 80% remaining light output after 3000 cycles, certified by battery manufacturer, mentioned on the attached certificate
Battery; storage time	M	Ok/Nok	4.0	The average capacity loss of six samples must not exceed 25%, and only one sample may have a capacity loss greater than 35% following the battery durability storage test as defined in IEC 62257-9-8, certified by battery manufacturer, mentioned on the attached certificate

Item Specifications	Battery protection	C	Ok/Nok	0	Automatic protection against deep battery discharge and overcharge, mentioned on the attached certificate	
	Total Lux	M	Measurable	4.0	As per the table below, max required is 28Lux measured on a surface size of A3 paper with the light source at 75cm above the surface. In a dark room, measure one point in the center of the A3 and one point in each corner of the A3, result is the average of the 5 measures. Do the test at ambient t° and repeat at -20°C (keep the lamp in a freezer for 24h conditioning and between each measurement)	
					<b>Total LUX test</b>	
					High beam test, duration of the test:3hours, from battery 100% charged	LUX
					Minimum average LUX at beginning of the test	28
					Minimum average LUX after 2h	17
					Minimum average LUX after 3h	9
					Low beam test, duration of the test:6hours, from battery 100% charged	
					Minimum average LUX after 4h	5
					Minimum average LUX after 6h	2
	LED type	M	Ok/Nok	4.0	L80 B10 C0 20000hr, certified by LED manufacturer, mentioned on the attached certificate	
	LED set	M	Ok/Nok	4.0	LEDs must be set in the way that 1 "out of service" or "Faulty" LED does not disable the entire set. Minimum number of LED: 10 mentioned on the attached certificate	
	Time to fully charge from solar charge	M	Measurable	4.0	Solar charging efficiency after 7h charge with simulated solar charge as per IEC TS 62257-9-5 Test includes Solar charge efficiency test, as per Annex R; PV module I-V characteristics test, as per Annex Q; Full battery run time, as per Annex M	
	Time to fully charge from AC charger	M	Measurable	4.0	DC charging time: fully charged after 5h with the provided AC charger from the main	
	Charging outlet functionality	M	Measurable	4.0	Lamp must be capable of providing light and recharging a mobile phone simultaneously	
	Charging indicator	M	Ok/Nok	4.0	Fully charged, Charging, and Discharged indicators on the body of the lamp. Red light LED during the charging period that shifts to green automatically when battery is fully charged >90% Low charge indicator: green light blinking below 20% charge.	
	Standing system	C	Ok/Nok	0	Attached adjustable handle allowing multiple use positions. The lantern should be designed in a way that enables it to stand sturdy on a flat surface and to be hung on a hook.	
	Available ports	C	Ok/Nok	0	USB-C 5V charging port USB-A 5V output port	
	Provided accessories, cables and connectors	M	Ok/Nok	4.0	110/220V-AC 2 pins Europlug Battery charger with detachable cable USB-A/USB-C	

