Street lighting SOPs — Europe

Standard operating procedures from OpenSLMS Learn, with references for this region. Use them as templates. Add your company rules and the maker's instructions.

SOP: Safe isolation before electrical work

Make it dead, keep it dead, prove it dead.

Who: qualified electrician Rules: EN 50110-1 five safety rules

1	Disconnect completely. Open the switch or remove the fuse for the circuit.	[ ]
2	Secure against reconnection. Lock off the device. Attach a tag with your name and the date.	[ ]
3	Verify that the installation is dead. Prove your tester on a known live source, test all conductors, then prove the tester again.	[ ]
4	Earth and short-circuit where your rules require it.	[ ]
5	Cover or barrier nearby live parts.	[ ]

A circuit can have more than one supply, and a controller can switch it on remotely. Isolate at the source, not at the contactor. Set the circuit to maintenance mode in the platform.

SOP: Traffic management at a work site

Protect the crew and the public.

Rules: national rules, for example Chapter 8 (UK) or RSA (Germany)

1	Get the road permit or approval before the work.	[ ]
2	Choose the layout for the road speed and type from your rules.	[ ]
3	Place signs and cones in the direction of traffic, starting with the advance warning.	[ ]
4	Park the vehicle to protect the work area, with beacons on.	[ ]
5	Wear high-visibility clothing (EN ISO 20471).	[ ]
6	Remove signs in the reverse order when the work is done.	[ ]

SOP: Work at height from a MEWP

Bucket truck work at the top of a pole.

Who: trained operator and a ground person Rules: EN 280, IPAF training common

1	Check the location for overhead lines, trees, and traffic.	[ ]
2	Set up traffic management. Mark an exclusion zone under the platform.	[ ]
3	Do the daily machine check. Make sure the periodic inspection is in date.	[ ]
4	Set up on firm, level ground with outriggers on pads.	[ ]
5	Check the wind speed. Stop above the maker's limit.	[ ]
6	Clip the harness lanyard to the basket anchor point before you lift.	[ ]
7	Secure tools and parts in the basket.	[ ]
8	The ground person stays at the ground controls.	[ ]

SOP: Replace a luminaire, driver, or node

The most common corrective job.

Who: lamp crew Before: safe isolation, traffic management, and work at height SOPs

1	Open the work order. Check the asset, model, and history.	[ ]
2	Take the correct spare from the store and issue it to the job.	[ ]
3	Isolate the pole at the pole fuse or circuit.	[ ]
4	Photograph the luminaire label before you remove anything.	[ ]
5	Replace the part. For a driver, use the same programme. For a node, record the new serial number.	[ ]
6	Check the gasket and cable gland. Close the luminaire.	[ ]
7	Restore power. Check the light, and that the node reports.	[ ]
8	Label the failed part with asset and job numbers for warranty.	[ ]
9	Resolve the job: cause, part used, and a photo.	[ ]

Dispose of failed electronics as e-waste (WEEE). Old discharge lamps contain mercury: treat them as hazardous waste.

SOP: Night patrol

Find dark lights before residents do.

Who: driver and observer, or one person on foot When: fixed cycle, for example every 2 weeks

1	Start at least 30 minutes after switch-on.	[ ]
2	Open the patrol in the app. Follow one circuit at a time.	[ ]
3	Mark each light: working, not working, or damaged.	[ ]
4	Also look for cycling lights, damaged poles, and open doors.	[ ]
5	For damage that is a danger, follow the damaged pole SOP.	[ ]
6	Close the patrol. Jobs are raised for each light not working or damaged.	[ ]

The driver must not mark lights while driving. Use an observer, or stop safely. A printable patrol sheet is available as a backup.

SOP: Cabinet inspection

The preventive visit to a cabinet or feeder pillar.

Who: electrician When: by the preventive plan

1	Check the outside: door, lock, base, damage, labels, and access.	[ ]
2	Check inside for water, insects, heat damage, and missing covers.	[ ]
3	Read the meter and controller display. Compare with the platform.	[ ]
4	Test each earth leakage device with its test button. Record the result.	[ ]
5	Check the SPD status windows.	[ ]
6	With covers in place, take a thermal image of terminals and contactors.	[ ]
7	Isolate. Tighten terminals to the maker's torque. Clean the photocell.	[ ]
8	Restore. Switch each circuit on and off from the platform.	[ ]
9	Complete the checklist and photos in the job.	[ ]

SOP: Make a damaged pole safe

After a vehicle hit, a fall, or a report of a shock.

Priority: Critical Who: emergency crew with an electrician

1	Keep people away. Do not touch the pole, door, or cables.	[ ]
2	Set up traffic management and a barrier.	[ ]
3	Isolate the circuit at the source. Follow the safe isolation SOP.	[ ]
4	Test the pole and the area for voltage.	[ ]
5	Make cable ends safe and insulated.	[ ]
6	Remove or secure the pole and luminaire.	[ ]
7	Restore other poles if you can isolate the damaged section.	[ ]
8	Photograph the scene. Record vehicle details or a police reference for cost recovery.	[ ]
9	Raise a follow-up job for the new pole and foundation.	[ ]

SOP: Mass outage after a storm

Restore in the right order.

1	Wait until the storm passes and it is safe to go out.	[ ]
2	Collect reports and controller alarms. Group them by area and circuit.	[ ]
3	Send make-safe crews to fallen poles and exposed cables first.	[ ]
4	Patrol priority routes: hospitals, emergency services, main roads.	[ ]
5	Restore circuits at cabinets before single lights.	[ ]
6	Raise one job for each asset that needs repair. Link them to the storm event.	[ ]
7	Photograph all damage for insurance and cost claims.	[ ]
8	Report progress to the city or road owner each day.	[ ]

SOP: Clean and check a solar street light

The routine visit that keeps solar lights working.

1	Read battery state and charge history from the platform before the visit.	[ ]
2	Check for shade from new trees or buildings.	[ ]
3	Clean the panel with clean water and a soft brush. Do not use high pressure or detergents unless the maker permits.	[ ]
4	Check the panel bracket, bolts, and angle.	[ ]
5	Check cables and connectors for damage and water.	[ ]
6	Check the battery box for heat damage, swelling, or water.	[ ]
7	Test the light with the controller's test mode.	[ ]
8	Record the result and photos in the job.	[ ]

SOP: Commission a controller or node

Checks to do before you trust the data.

1	Map it to the correct asset in the register.	[ ]
2	Set location and clock: latitude, longitude, time zone.	[ ]
3	Check readings against a clamp meter. Check each phase is on the correct input.	[ ]
4	Test switching and dimming from the platform. Confirm on site.	[ ]
5	Test one alarm, for example open a breaker.	[ ]
6	Record it: date, person, results.	[ ]

A reversed current transformer gives negative power or a wrong power factor. It is the most common error after installation.

SOP: Resolve and close a work order

The record that makes every report useful.

1	Select the cause from the list. Use "other" only if no cause fits.	[ ]
2	Record each part used.	[ ]
3	Add a photo of the finished work.	[ ]
4	Raise a new job for any follow-up work.	[ ]
5	Resolve the job.	[ ]
6	The supervisor checks the record and photo, then closes it or returns it.	[ ]

A job without a cause is a lost lesson. Repeat-failure and warranty reports depend on this step.