

Datasheet

LEADSUN
Limitless Light. Beyond the Grid.

INTEGRATED SOLAR STREET LIGHT

AE3 All-in-One

Fully integrated solar street lighting
across three power tiers for fast,
clean deployment.

The Leadsun AE3 All-in-one combines the solar module, battery, controller, LED engine, and PIR sensor into a single sleek housing.

Engineered for quick installation and smaller-scale infrastructure projects where speed, simplicity, and clean aesthetics matter, available in three power tiers to match the job.



10+ Year Battery

Long-life LiFePO₄ batteries



Fully Integrated Solar Engine

Boosting energy generation by 10–15%



190 lm/W LED

IES T2-S, T2-L, T3 distributions

Up to
190 lm/W

LED
EFFICACY

IP66

WEATHER
RATED

615 Wh

MAX
BATTERY

AE3 All-in-One

Integrated Solar Street Light

Why All-in-One

The AE3 combines solar module, battery, controller, LED engine, and PIR sensor into one sealed housing. There are no external panels to align, no separate battery boxes, and no inter-unit wiring. A crew mounts the unit to the pole tenon, sets orientation, and moves on.

That single-housing approach is what makes the AE3 ideal for high-volume rollouts — predictable install times, fewer parts to track, and lower labor cost per pole. Three power tiers let you match output to the site without changing the install method, and PIR adaptive output with high-cycle LiFePO₄ storage runs the system dawn-to-dawn with no grid and no maintenance trips.

STEP 1 · INTEGRATE

All-in-one Housing

Solar, battery, controller, LED, and PIR sensor in a single sealed unit.

STEP 2 · DEPLOY

Fast Pole Mount

Fits standard 2 7/8" tenons; predictable install times across high-volume rollouts.

STEP 3 · ILLUMINATE

Adaptive All Night

PIR output and LiFePO₄ storage deliver dawn-to-dawn light with no grid.

Core Advantages

- **Single-Housing Design:** Solar, battery, controller, LED, and PIR in one unit, fast install, lower labor cost.
- **Built to Last Outdoors:** IP66 waterproof and municipality-grade corrosion-resistant materials.
- **Adaptive Efficiency:** PIR motion sensing and high-efficiency solar maximize runtime and reduce wasted output.
- **Three Power Tiers:** 60W or 90W solar paired with 20W–40W LED to match output to the site.

Specifications

MECHANICAL	C6020N	C9030Q	C9040R
PV Module Power	60 W	90 W	90 W
Battery Capacity	308 Wh	512 Wh	615 Wh
Net Weight	32 lbs	43 lbs	45 lbs
Dimensions (in.)	43 × 17 × 4	56 × 17 × 4	56 × 17 × 4
IP Rating	IP66	IP66	IP66
MOUNTING	C6020N	C9030Q	C9040R
Tenon OD	– Fits standard 2 3/8" OD –		
Installation HT.	13–23 ft	16–26 ft	20–26 ft
Installation Dist.	50–80 ft	65–100 ft	80–115 ft

LIGHTING	C6020N	C9030Q	C9040R
Light Output	20 W	30 W	40 W
Luminous Flux (IES)	3800 lm	5700 lm	7600 lm
BUG Rating	B1-U1-G1	B2-U1-G1	B2-U1-G2
Color Temperature	– 3000/4000/5000 K –		
Optical Distribution	– Type II / III –		
LED Efficacy	– Up to 190 lm/W –		
Sensor Options	– PIR / DISS –		

Applications: Rapid rollouts, remote sites, and high-volume deployments - residential streets, pathways, parks, and campuses.

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