SEPARATE-PANEL SOLAR LED LUMINAIRE

Compact, off-grid lighting with independent solar panel positioning, Nichia LED optics and BMS-protected LiFePO4 energy storage.

6500 K	2,400 lm	IP66	2 YEARS
NICHIA LED	MAX. FLUX*	INGRESS PROTECTION*	PRODUCT WARRANTY

ACTUAL INSTALLED UNIT



Figure 1 | Actual product installation

TECHNICAL SPECIFICATIONS

OPTICAL & CONTROLS	
LED source / CCT	**Nichia / 6500 K**
Maximum light output	**2,400 lm***
Motion detector	**Integrated PIR sensor**
Lighting control	**High (%100) / low (%20) lighting levels**
Remote operation	**Included**
SOLAR & ENERGY STORAGE	
Solar module	**14.25 W monocrystalline**
Charge control	**3.2 V**
Battery configuration	**4 x 6 Ah LiFePO4 cells**
Battery safeguards	**Integrated BMS**
Cycle-life objective	**2,000 cycles**
CONSTRUCTION & INSTALLATION	
Luminaire dimensions	**300 x 100 mm**
Panel dimensions	**420 x 300 mm incl. feet**
Housing / finish	**Aluminium / powder coating**
Mounting bracket	**Steel / tilt up to 45 deg.**
Solar connection cable	**3 m, extendable**
Ingress protection	**IP66**
Metal housing impact	**IK08 (metal housing only)**
Fixture weight	**Approx. 3 kg**

SOLAR & OPERATING PARAMETERS

DAILY SOLAR EXPOSURE
6-8 hours of direct sunlight

EXPECTED LIGHTING DURATION
17-20 h average

RECOMMENDED MOUNTING
Up to 5 m

TYPICAL COVERAGE
Approx. 80 m2 (site-dependent)

PERFORMANCE TARGETS: battery >=5 years; PV module >=10 years at 100% initial performance.

Runtime varies with irradiation, season, sensor mode and installation.
Under suitable use/charge conditions in energy-saving modes. These targets are not end-of-life limits or extra warranties.

Note: 90 W equivalent is a comparative class, not the measured electrical power consumption.



ACTUAL LIGHTING APPLICATION

Original field photograph supplied by Yakan Aydinlatma - not a simulation or photometric render.

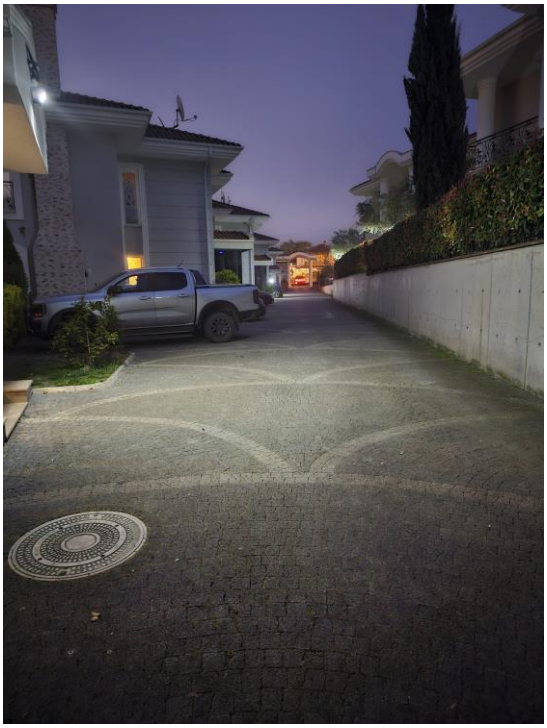


Figure 2 | Actual night-time illumination

FIELD REFERENCE

Residential driveway. This image shows the actual lighting effect but is not a calibrated lux/uniformity test.

INSTALLATION REQUIREMENTS

01 Solar access
Keep panel free from shading; allow 6-8 hours of direct sunlight.

02 Solar connection
Separate panel with a 3 m extendable cable.

03 Mechanical fixings
Verify support capacity, fixings and local wind loads.

04 Qualified installation
Have the system installed by an experienced electrician.

SUPPORTING TEST FILES / DOCUMENT SCOPE

FILE / REPORT	TESTED COMPONENT / MODEL	RELEVANCE TO Y.A.126030
NICHIA LED	NF2W757GRT-V3 - 6500 K LED ranks	**COMPONENT ONLY** LED datasheet; not fixture certification.
UN 38.3	3.2 V / 6 Ah	**TESTED CELL ONLY** Cell transport report, not assembled pack.
MERCURY SCREEN	12.8 V pack	
EMC REPORT	CGS EMC-26288 - Y.A.128018 test	DoC
LVD ATTESTATION	PTC 2026-PTC-6937 - YKN model list	DoC

Product warranty: 2 years. All performance figures depend on the stated operating conditions.