

Next Generation Solar Lighting



ALPHA™
LIGHTING SYSTEM

SolarPath™
sun solutions
a United Light Group company

www.solarpathusa.com

HighLight ALPHA™ Solar Lighting System



SolarPath™
sun solutions

About SolarPath

- US based, HQ in New York.
- Specializes in Solar powered lighting, Serving the US market via 40 agencies across the country and hundreds of international customers in over 96 countries worldwide.
- Pioneering in advanced technology integration and industrial grade design.
- GSA Contract GS-07F-0769X

Our customers

Cities, States and Municipalities

- City of New York, NY
- City of Denver, CO
- City of Los Angeles, CA
- City of Daytona Beach, FL
- City of Huntsville, TX
- City of San Antonio, TX
- City of San Diego, CA

Government and Armed Forces

- National Oceanic & Atmospheric Administration
- US Chamber of Commerce
- US Federal Parks Administration
- N.A.S.A.
- US Embassy Costa Rica
- US Army
- US Air Force
- US National Guard Fort Dix

Commercial

- Panasonic Corporation
- Addison Airport, TX
- General Mitchell Intl. Airport
- Pease Intl. Airport
- Starwood Resorts

- Federal Express
- Bellagio Hotel & Casino
- Las Vegas Convention & Visitors Authority
- Chrysler of Canada
- United Airlines
- Four Seasons Hotels & Resorts
- Michelin
- Hard Rock Cafe
- St. Regis Hotels & Resorts

Academic

- University of Puerto Rico
- University of Arizona
- University of Texas, El Paso
- Smithsonian Institute
- State University of New York at Binghamton
- Thunderbird School of Global Management

And many others...

Solar Lighting ROI

When is solar most relevant?

#1 – Infrastructure

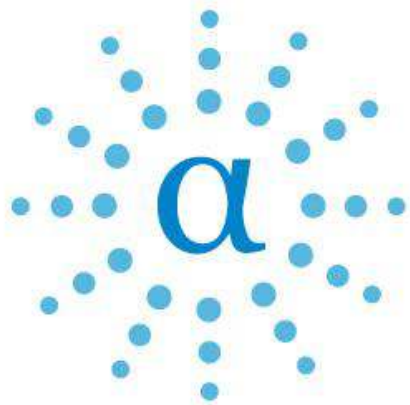
And then

#2 - Energy

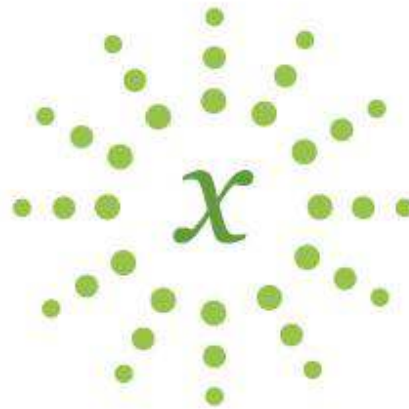
- New developments
- Eroded / Old infrastructure
- Remote locations
- Temporary installations
- Green projects (LEED SS8)



HighLight Series Introduction (2nd generation)



ALPHA™
LIGHTING SYSTEM



EXCEL™
LIGHTING SYSTEM



SUNBOX™
LIGHTING SYSTEM

SolarPath Products objective

- Save costs & Simplify installation
 - Eliminating need of expensive infrastructure
 - Eliminating utility bills
 - Reduce labor hours
 - Ensure proper installation
 - Does not require specially certified work force
- Longevity
 - Integrated, vandal resistant design
 - Top pole mounting
 - Rigid construction



SUNBOX™
LIGHTING SYSTEM

SOLAR



 **ULG**
United Light Group

 **SolarPath**
sun solutions

HighLight SUNBOX

Main points

- Ultra-Compact design
- Small footprint and EPA
- The simplest installation – one part

Basic facts

- Output: Up to 1000 lumen
- EPA: 5

Installation photos



HighLight SUNBOX – University Campus



SUNBOX™
LIGHTING SYSTEM

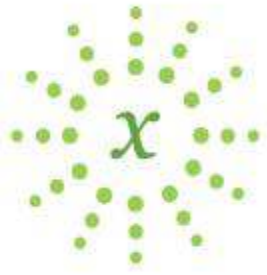


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HighLight SUNBOX™ Solar Lighting System



SUNBOX™
LIGHTING SYSTEM



EXCEL™
LIGHTING SYSTEM

SOLAR



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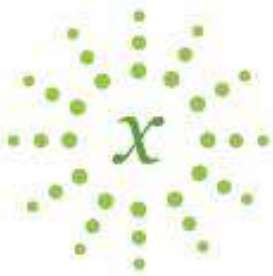
HighLight EXCEL

Main points

- Compact design
- Extra energy storage
- Simple installation – Two parts
- Available in two sizes – Excel-1000 (up to 1000 lumen) and EXCEL-2000 (up to 2000 lumen)

Basic facts

- Output: Up to 2000 lumen
- EPA: EXCEL-1000: 7.2 EXCEL-2000: 9



EXCEL™
LIGHTING SYSTEM



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HighLight EXCEL™ Solar Lighting System



Installation photos



HighLight EXCEL – Desert Installation

Installation photos

HighLight EXCEL
Security application
(Government)



Installation photos



HighLight EXCEL – Public Path – Day & Night



ALPHA™
LIGHTING SYSTEM

SOLAR



Basic facts

- Compact design
- High output – up to 7,200 lumen
- Highly durable
- Optional CCTV

ULG
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Installation photos



HighLight ALPHA – Remote parks



HighLight ALPHA – Coastal areas

Installation photos



HighLight ALPHA

Installation photos



HighLight ALPHA – Parking lots

Basic Model Comparison

Feature	SUNBOX	EXCEL-1000	EXCEL-2000	ALPHA
Lumens	Up to 1000	Up to 1000	Up to 2000	Up to 7,200
EPA	5	7.2	9	13
Recommended mounting height	15'	15'	15' to 18'	18' to 25'
Batteries	3 x 26Ah	1 x 75 Ah	1 x 100 Ah	2 x 100 Ah

Uses and Applications Examples

Application	SUNBOX	EXCEL-1000	EXCEL-2000	ALPHA
Walking paths	●	●	●	●
Public areas	●	●	●	●
Parks	●	●	●	●
Access roads	○	●	●	●
Bus shelters	●	●	●	○
Parking lots	○	○	●	●
Mid-size roads	-	○	○	●
Boardwalks	●	●	●	●
Farms	●	●	●	●

Common features

- Rotatable solar panel
- Optional Wireless communication: control and monitor fixtures from any location in the world.
- Occupancy Sensing Light Control.
- Adjustable operation profiles, dimming.
- Larger batteries – longer run time.
- High quality LEDs and optics.
- IES Lighting Distribution compliance.
- RAL & Pantone Colors.
- Optional Integrated Wireless Security Cameras.

Communication and monitoring

All SolarPath HighLight systems are wireless communication capable and can be controlled from anywhere in the world over a secure, encrypted network connection. this allows for:

- Full control on all system features and operations

Changing intensity, On/Off time and other settings can be controlled remotely

- Monitoring and events alerts
 - “On” hours, LEDs status
 - Solar panel production
 - Batteries charge state and aging
 - Temperature and many more...

HighLight Series Q&A

- Wow those things cost so much more than electric!
 - Yes, but you save on infrastructure which eventually balances in your favor
- What is the ROI on these?
 - If you have a new installation – your ROI can be achieved on day 1. saving the immense cost of electric infrastructure. Any energy savings beyond that – more power to you!
- What kind of maintenance are we looking at here?
 - The systems require no maintenance, the only thing will be battery replacement which with today's technology is anticipated every 4-5 years in average, depending on installation environment. However battery technology constantly improve which will result in longer lifespan.

HighLight Series Q&A (cont.)

- What is the warranty on those systems?
 - Systems are warranted for 5 years, the batteries come with standard 2-year warranty (can be extended by special extended plan)
- I see those are “All-in-one” systems – what happens if a component needs to be changed over time?
 - The systems are modular, each part can be replaced individually – Controls, LED board, solar panel and battery box, batteries etc.

HighLight Series Q&A (cont.)

- What type of poles are needed for those fixtures?
 - The SolarPath HighLight fixtures do not require obtaining special SolarPath poles, most pole manufacturers can fabricate poles for the SolarPath fixtures which makes pole selection easy and affordable. SolarPath will provide pole-top prep instructions for your pole manufacturer to work with.
- Will the system really run dusk to dawn?
 - Yes, our systems are designed for full night operation as well as user defined on/off and dimming profiles

HighLight Series Q&A (cont.)

- What will happen in the winter? Will the system continue to run even if sun hours are limited?
 - Our systems are designed to work even under harsh weather conditions. They are able to produce energy even in cloudy days and extra energy storage allows to compensate for occasional limited sun hours scenarios.
- We have snow in the winter, will the system still work?
 - Yes,
 - The smooth coating and angular tilt of the solar panel cause the snow to slide off.
 - The heat captured by the solar panels' dark surface assists in melting and sliding off of the snow.

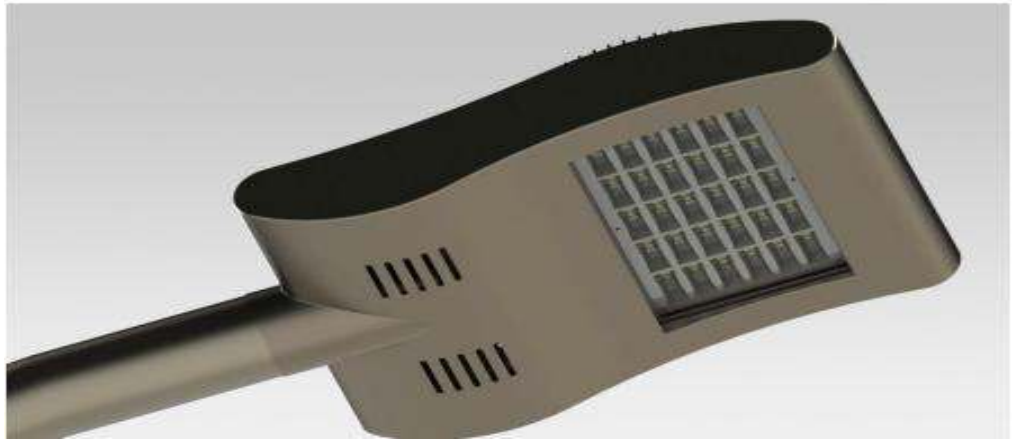
HighLight Series Q&A (cont.)

- If we have the wireless control option in our systems, can the systems be controlled even if we do not have an existing internet connection or power outlets on site for the communication gateway?
 - Yes, the gateway system can come equipped with a cellular internet modem and can be powered by solar energy so you can access even the most isolated site with absolutely no wired infrastructure.

Coming design updates



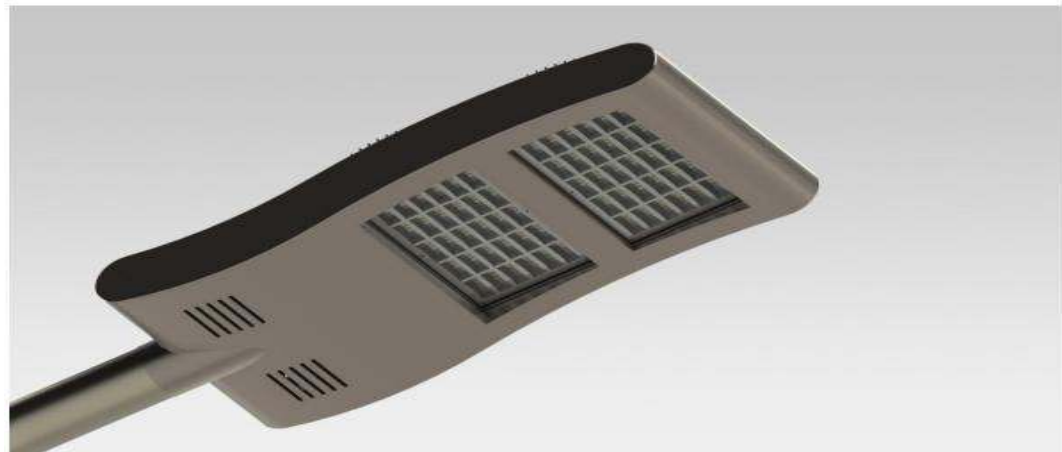
Coming design updates



Coming design updates



FLAT VERSION



WAVE VERSION