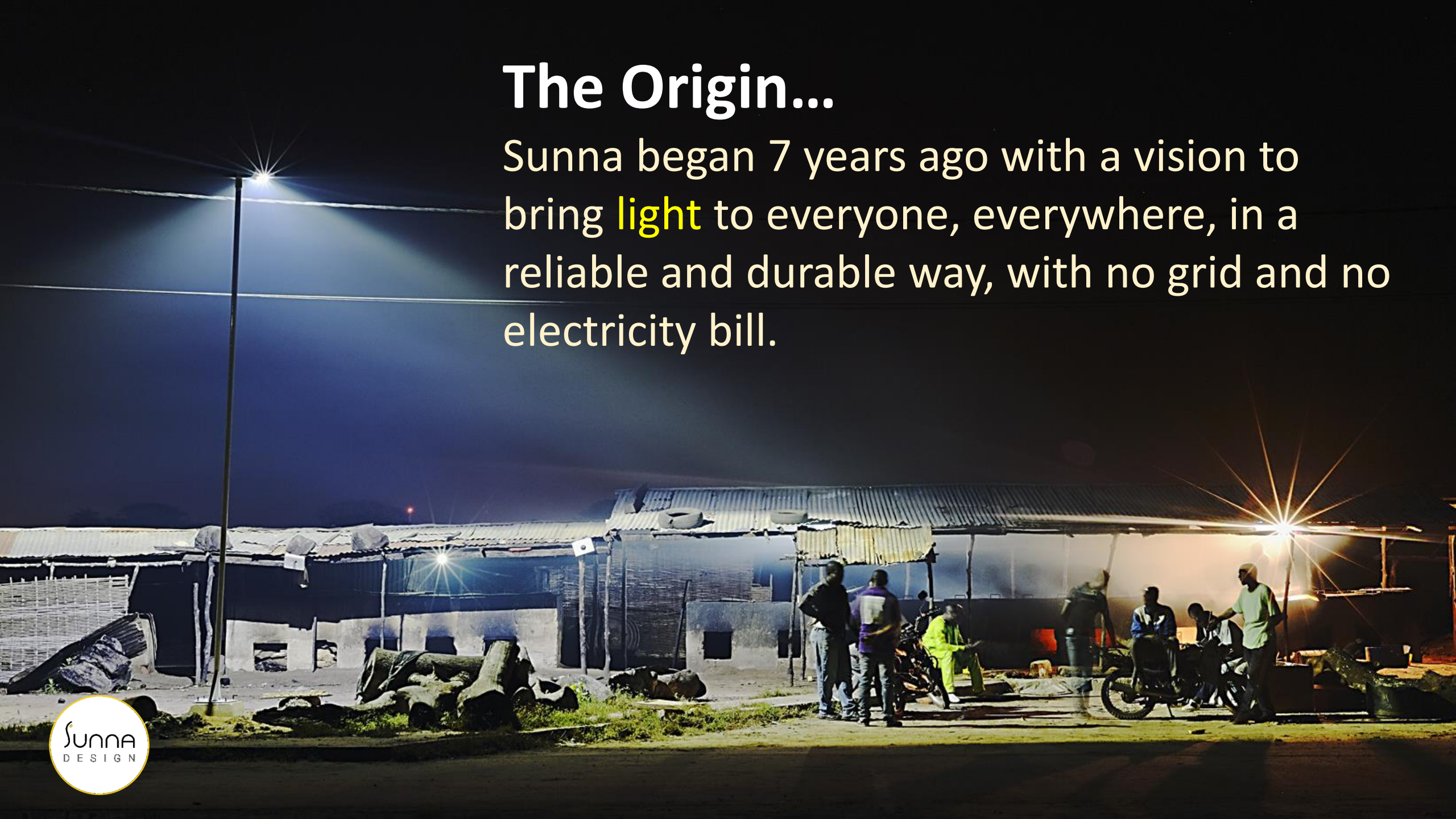

Sunna
design
World Leaders in Solar Lighting
Part of a converging technology paradigm shift…

The Origin…

Sunna began 7 years ago with a vision to bring light to everyone, everywhere, in a reliable and durable way, with no grid and no electricity bill.



The Result to Date

- Lights deployed in 45 Countries
- 14,000+ lights installed
- 9 International Awards
- 14 Patents

SUNNA DESIGN

How has Sunna's vision and technology been received?

Bloomberg NEW ENERGY PIONEERS

"Sunna is the only company in the crowded and commoditized solar street lighting market that has successfully combined public street lighting with pay-as-you-go energy services for rural households consumers in the vicinity of the streetlight.

It has proved after 5 years and R&D with public labs and blue ship industrial partners, that it has the only solar-powered street light that can last ten years maintenance free in tropical and desertic countries."

New Energy Pioneers 2017

https://about.bnef.com/blog/new-energy-pioneers-sunna-design/

This paradigm shift is about mindset & converging technologies…..

- “Developer” was beholden to the Utility
- Lights were just lights - tied to the grid
- Require trenching, wiring and maintenance

- “Developer” is now beholden to no one
- Street lights are autonomous communications platforms
- Installations are completed in under an hour

What is the technology?

It is an…All-IN-ONE SOLAR LIGHT

With…ANTI-BLACKOUT FEATURE 365 DAYS A YEAR

And….SMART CITY CONNECTIVITY

ANTI BLACKOUT…
“The old Telco 99999”

LIGHTING SERVICE AVAILABILITY
99.24% of the year

POSSIBLE SERVICE UNAVAILABILITY*:
0.76% of the year

Location: Wesley Chapel, Florida

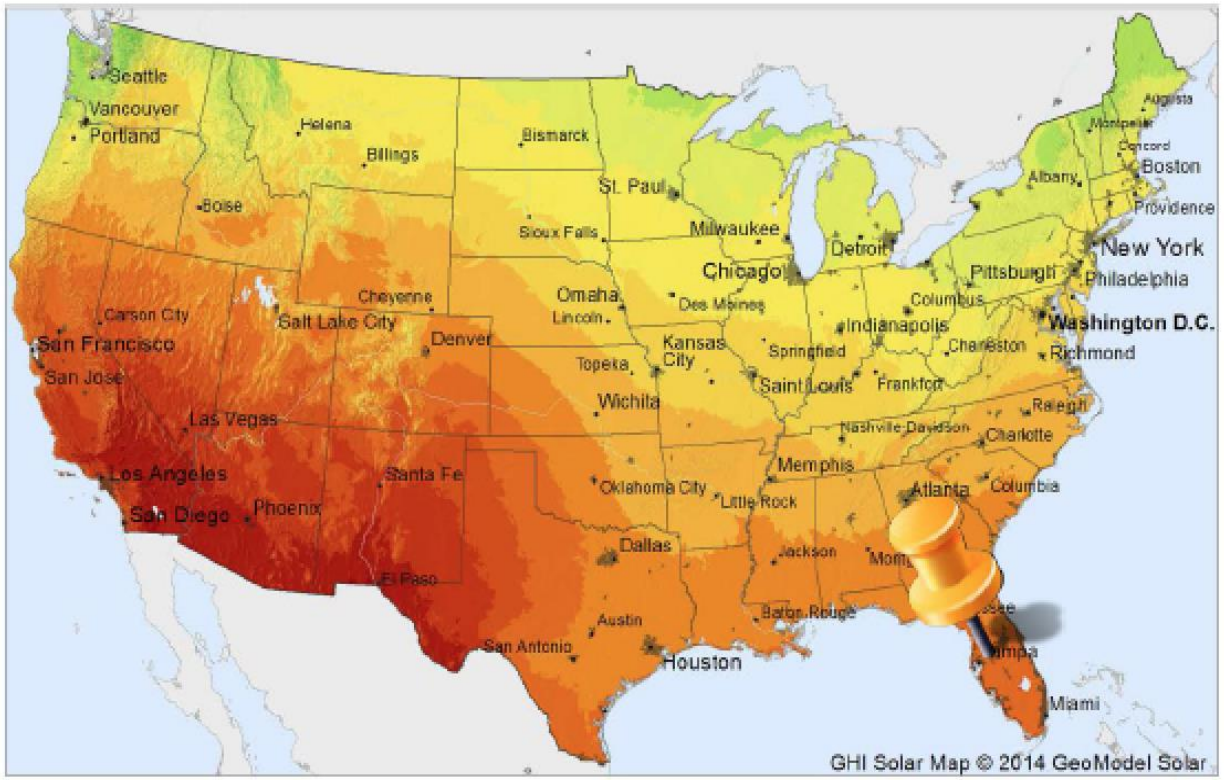
Country: United States of America

Lat [°] = 28.183, Long [°] = -82.364, Altitude [f] = 62

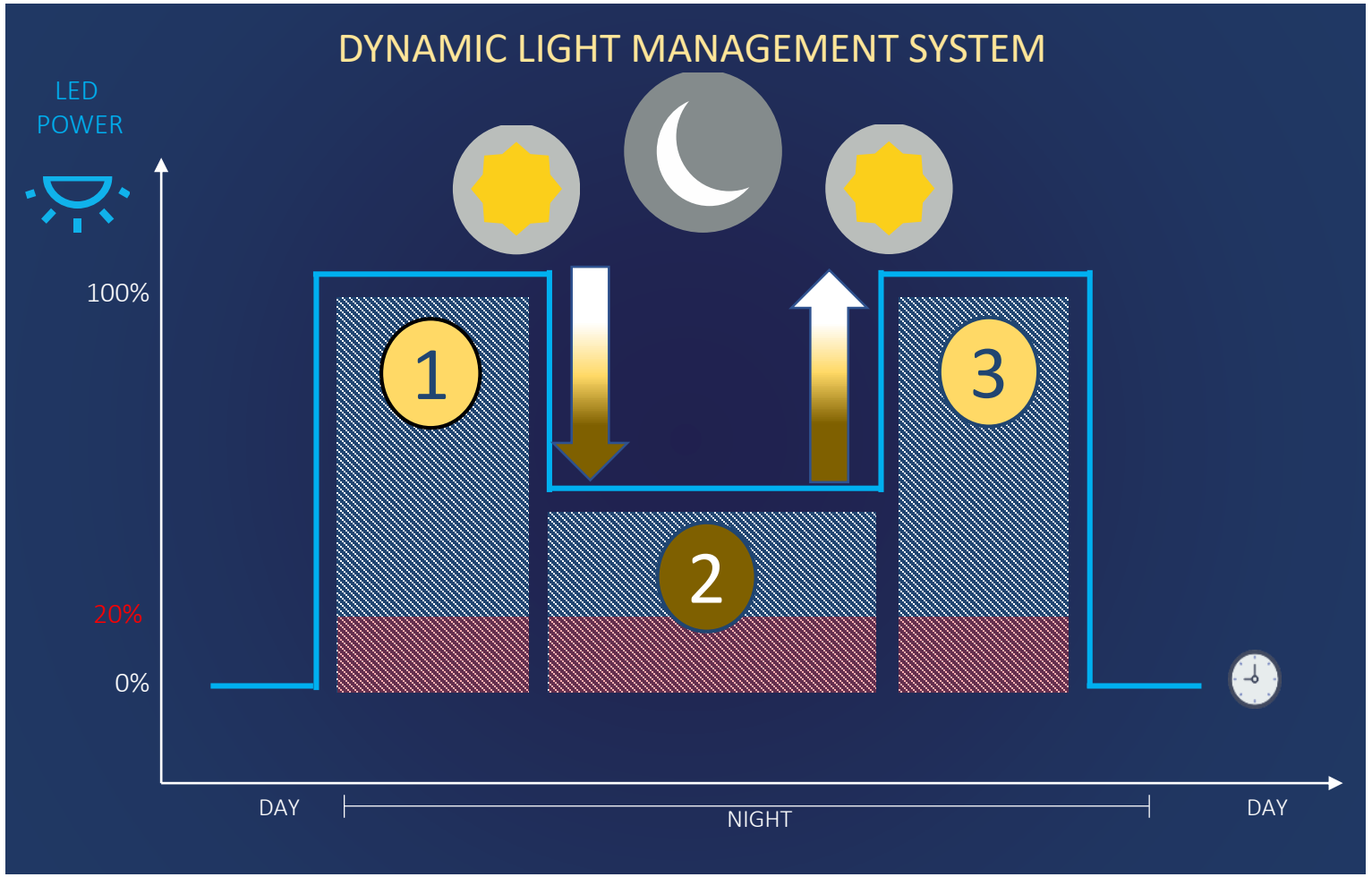
Nearest weather stations:

- Saint Leo, FL (5 Mi)
- Hernando County Airport, FL (18 Mi)
- Tampa International Airport, FL (25 Mi)
- Lakeland, FL (26 Mi)

Radiation data obtained from a triangulation of the four nearest weather stations, averaged over a typical year, itself averaged over the last 10 years.



BATTERY LEVEL + LAST DAY'S DATA = Automatic adaptation of the light intensity during phase 2

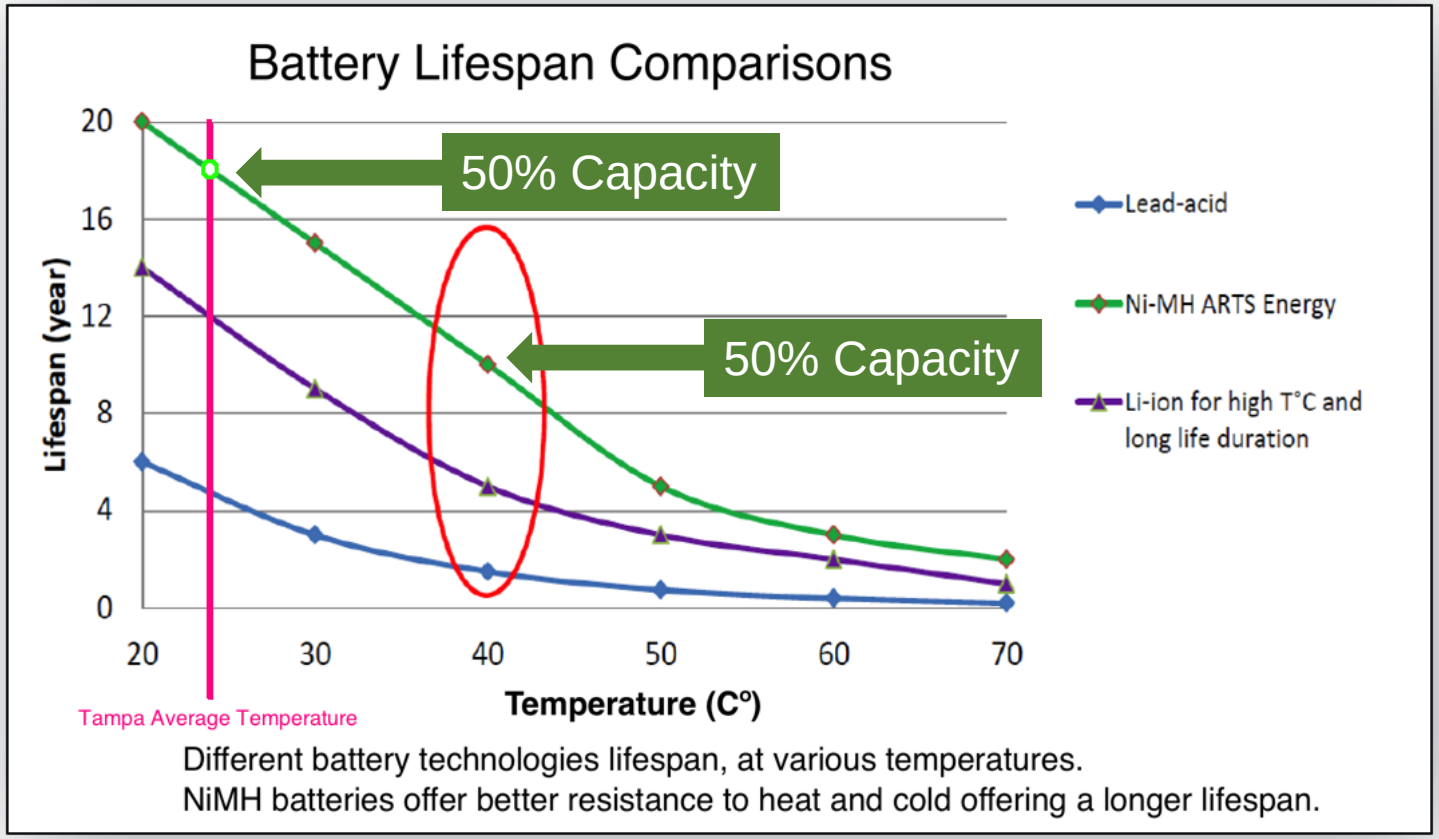


NO BLACKOUT GUARANTEE

Enabled by a Patented LIGHT MANAGEMENT SYSTEM

®

Battery Life @104°F



Different battery technologies lifespan, at various temperatures.
NiMH batteries offer better resistance to heat and cold offering a longer lifespan.

Tampa weather averages

Annual high temperature:	81.7°F
Annual low temperature:	65°F
Average temperature:	73.35°F
Average annual precipitation - rainfall:	46.31 inch
Days per year with precipitation - rainfall:	-
Annual hours of sunshine:	-
Av. annual snowfall:	-

There is little to no correlation between light performance and battery capacity (life) remaining

Manufacturing Versatility -

Pathway…parking…street…security

SUNNAPP

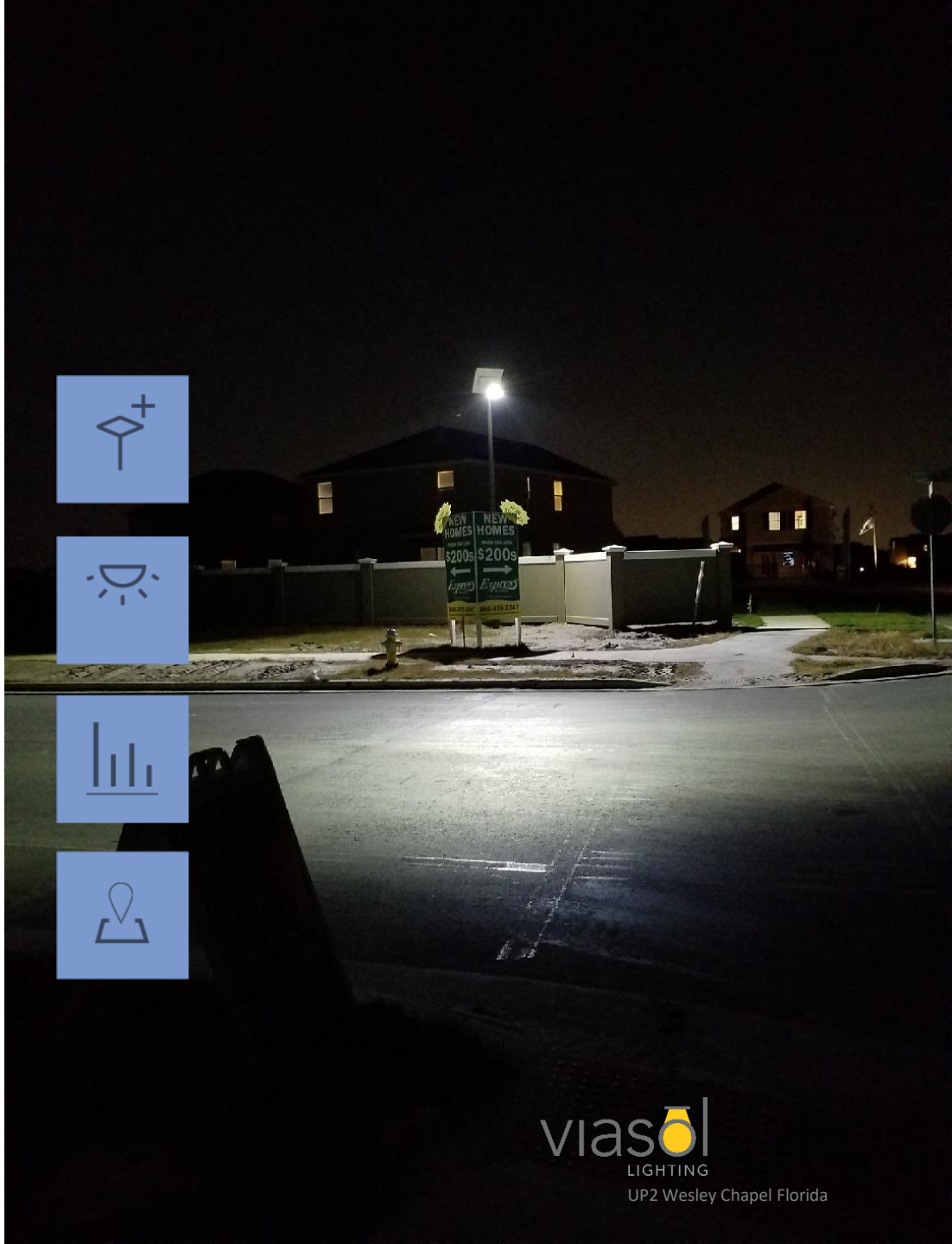
Total control in the palm of your hand

INSTALLATION AND COMMISSIONING SUPPORT

LIGHTING PROFILES MANAGEMENT

MONITORING YOUR LIGHTS

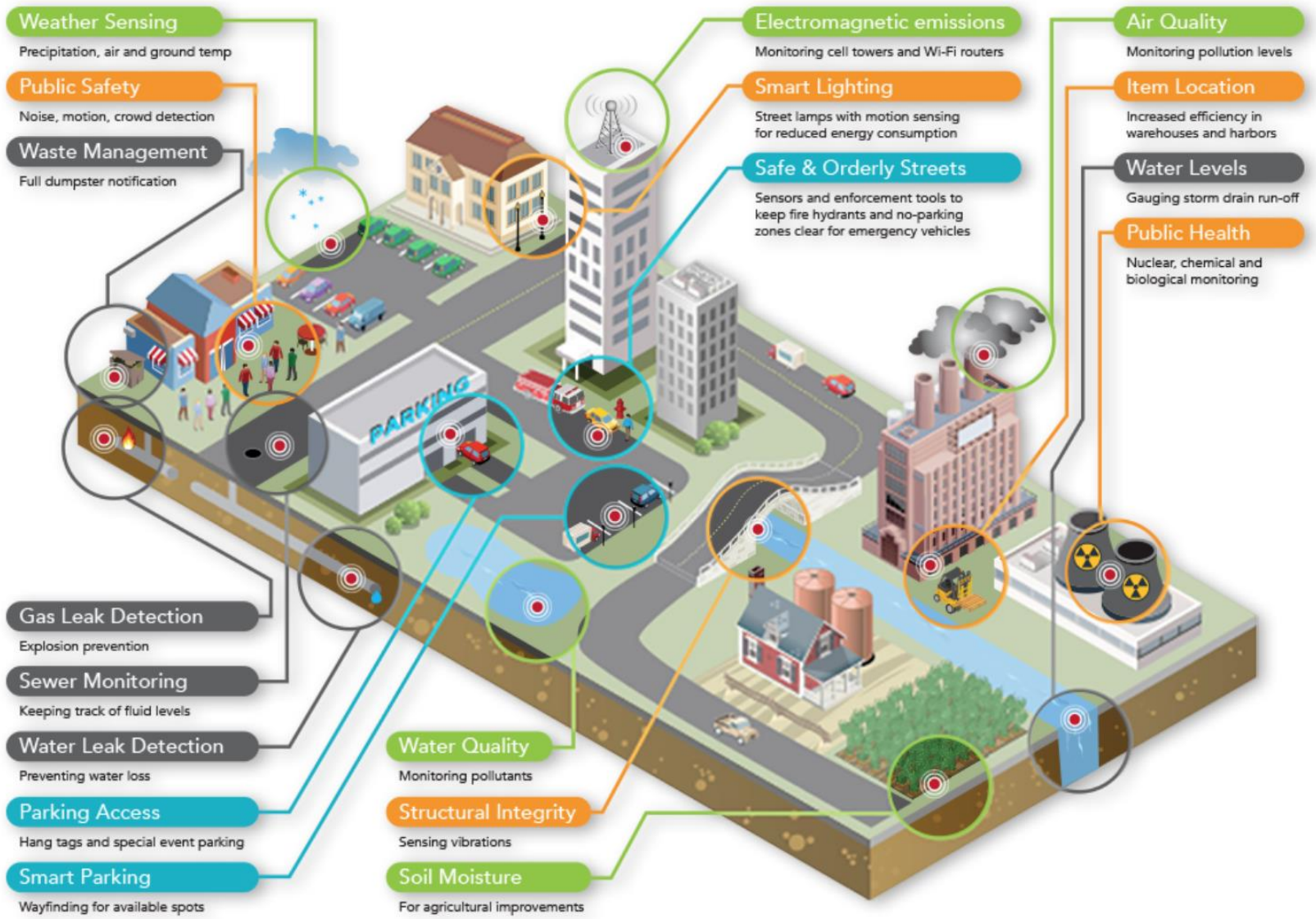
REGISTERING AND FOLLOW UP



SUNNACLOUD:
Cloud Based Monitoring

- Installed Products Referencing
- Remote Management
- Real Time Monitoring
- Product Health Diagnosis

SMART CITIES & INDUSTRY



Boulevards Look & Feel

24’ Pole

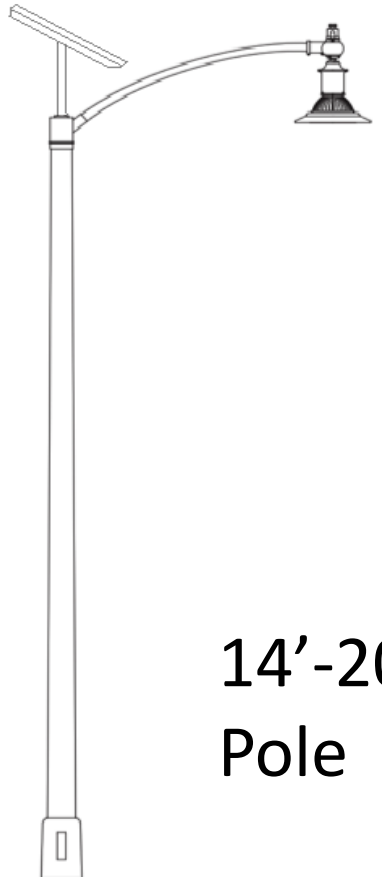
King Luminaire • StressCrete • Est.1953

STRESSCRETE GROUP

Quality People · Quality Products

ALLIANCE COMPOSITES INC

Residential Streets Design



14’-20’
Pole

King Luminaire • StressCrete • Est.1953

STRESSCRETE GROUP

Quality People · Quality Products

ALLIANCE COMPOSITES INC

Life Expectancy@77º

- LED'S – after 50,000 hours – 16+ Years expected 90% output
- Batteries - @77ºC: 6,000 Cycles or 16 years
  - 90% capacity remaining after 5 Years
  - 80% capacity remaining after 10 Years
  - 50% capacity remaining after 16 Years
  - LED performance is guaranteed until battery capacity diminishes to 50%

**White paper and supporting documents in Panasonic shared folder*

Hurricane Rated

Sunna lights are certified to meet wind resistance requirements for category 5 hurricane zones.

UP-2 Installed in Wesley Chapel, Florida. Engineered for Cat 5 Hurricane.

Déclare que le produit cité ci-dessous :
Declares that the product specified herebelow:

Produit : *Product :*	Candélabre solaire *Solar street light*
Référence des produits : *Reference of the products :*	SD4200 0xx xxx - iSSL Maxi ROAD_V5 SD4200 1xx xxx - iSSL Maxi ROAD_V5_Detect SD4220 0xx xxx - iSSL Maxi AREA_V5 SD4220 1xx xxx - iSSL Maxi AREA_V5_Detect SD4240 0xx xxx - UP2_V5 SD4240 1xx xxx - UP2_V5_Detect SD4250 0xx xxx - UP2_V5-DUAL SD4260 0xx xxx - iSSL Maxi 4_V5

Références normatives :
Normative references:
NF EN 40-3-2
UL 1703