GreenWay™ Series (GY)

Sol®
Reliable. Renewable. Remarkable.

Project Name: _____

Project No.: _____ **Qty:** _____

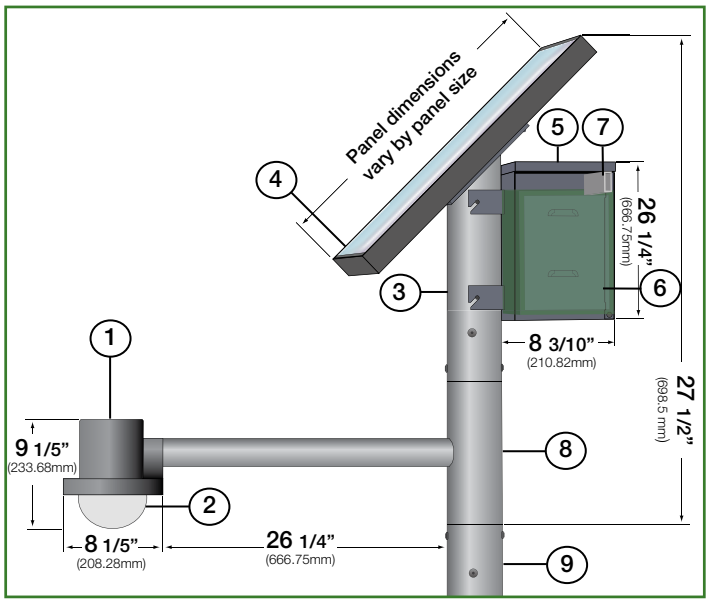
Product:

GY	Z	GA	5	A 20	G
Series	Color	Luminaire	Optics	Load	Batt. Box

G 1 1	H	1W	P24		
Batt Pwr	Batt Mnt	Panel	Pole	Option	Option

Example: GYK-GA5A20-G1H-A-P20-MS

Color	*LED Luminaire*	*Optics*	*Driver/Load*	*Batt. Box*	*Battery Pwr*	*Batt. Mount*	*Panel*	*Pole*	*Options*
Z Bronze **K** Black **G** Green **Y** Gray **W** White **C** Custom Finish (Specify RAL#)	**GA** GreenWay Ascot (T5) **FL** GreenWay Flare (T1) **SS** Shoebox Small 12x12 (T5)	**1** Type 1 **5** Type 5	Driver **A** aiSUN™ Load **20** 20 Watts	**G** GreenWay	**1** 100 ah	**H** Locking High **S** Non Locking High **B** Below Grade	**B** 80W **C** 100W **D** 125W **K** 135W (UL)	**P24** 24 ft. Aluminum Pole	**MS** Motion Sensor **SS** Seasonal Switch **WR** Wireless Remote
ATTENTION: Solar Panel and Hours of Operation requirements to be determined by SOL based on your project requirement, please consult factory.									



1. **Luminaire -** Standard model includes die cast Ascot with polycarbonate hemi dome lens. Sealed for corrosion resistance and condensation prevention. IP 65 rating and CE certified. Optional die cast shoebox luminaire (not shown) with hinged cover features full cut-off lens. See luminaire data sheets for more information.
2. **Optics -** (not shown) High lumen LEDs rated at 65,000 hours (L70). IES Types 1 and 5 available. Type 2 only available in a Shoebox 24 LED configuration. Type 5 qualifies as IES full cutoff and is IDA Dark Sky certified. Efficient, bright, white light source of 5,000K provides uniform light distribution.
3. **Panel Mount -** Grade "A" corrosion resistant aluminum frame supports solar panel and battery enclosure. Allows for proper orientation of solar array.
4. **Solar Panels -** Poly-crystalline photovoltaic module, in 50W, 80W, 125W and 135W UL single modules. Back side of panels covered with panel pan to protect PV module. PV limited warranty by solar panel manufacturer for 20 years.
5. **Battery Enclosure -** Vented Grade "A" corrosion resistant aluminum unit holds battery and smart controller. Hinged cover features optional locking device for additional security.
6. **NRGLife™ Battery -** Maintenance-free 100Ah rated sealed valve regulated lead acid (Gel) battery provides a minimum of 5 nights of battery back-up.
7. **aiSUN™ Controller** - An LED driver with an integrated solar charge controller that monitors and regulates charging and discharging of batteries as well as controlling and dimming of LED luminaire. Programmable to control hours of operation and light level requirements. Accessible through hinged battery enclosure cover.
8. **Luminaire Arm -** Made of Grade "A" corrosion resistant aluminum. Holds luminaire for proper positioning of light. Secured by panel mount and pole through eight drive rivets.
9. **Pole -** 24 foot 4" I.D./4.5" O.D. Schedule 40 straight aluminum direct burial pole. Can be cut to length.
10. **Warranty -** 10 years on electronics, wiring, luminaire and 20 years on mounting hardware and solar panel.

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GreenWay™ Series (GY)

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Specifications

Solar Panel	Dimensions Length x Width x Height	Panel Power (output amps)	System EPA (Effective Projective Area)	System Wgt. (with pole)
80 Watts	39.48" x 26.06" x 1.81" / 1003 mm x 662 mm x 46 mm	4.56 amp @ 12V	7.18 sq. ft / .667 m²	250 lb. / 113.40 kg
100 Watts	48.69 x 26.06 x 1.88 / 1237 mm x 662 mm x 48 mm	5.70 amp @ 12V	9.05 sq. ft./ .841 m²	295 lb / 133.81 kg
125 Watts	58.58" x 26.06" x 1.88" / 1488 mm x 666 mm x 48 mm	7.14 amp @ 12V	10.05 sq. ft / .934 m²	300 lb. / 136.08 kg
135 Watts	59.1" x 26.3" x 1.81" /1500 mm x 668 mm x 46 mm	7.63 amp @ 12V	10.15 sq. ft / .943 m²	299 lb. / 135.62 kg

The chart above is for reference only. SOL provides calculated EPA and weight when a system is quoted and submitted.

Mounting

4" I.D./4.5"O.D. Schedule 40 straight aluminum pole - standard 24 ft. pole cut to size or used as is for longer burial depths in high wind applications

Weight: max. 68 lbs.

Soil is Augured 14" diameter and filled with concrete. It is recommended to check locals codes before burial.

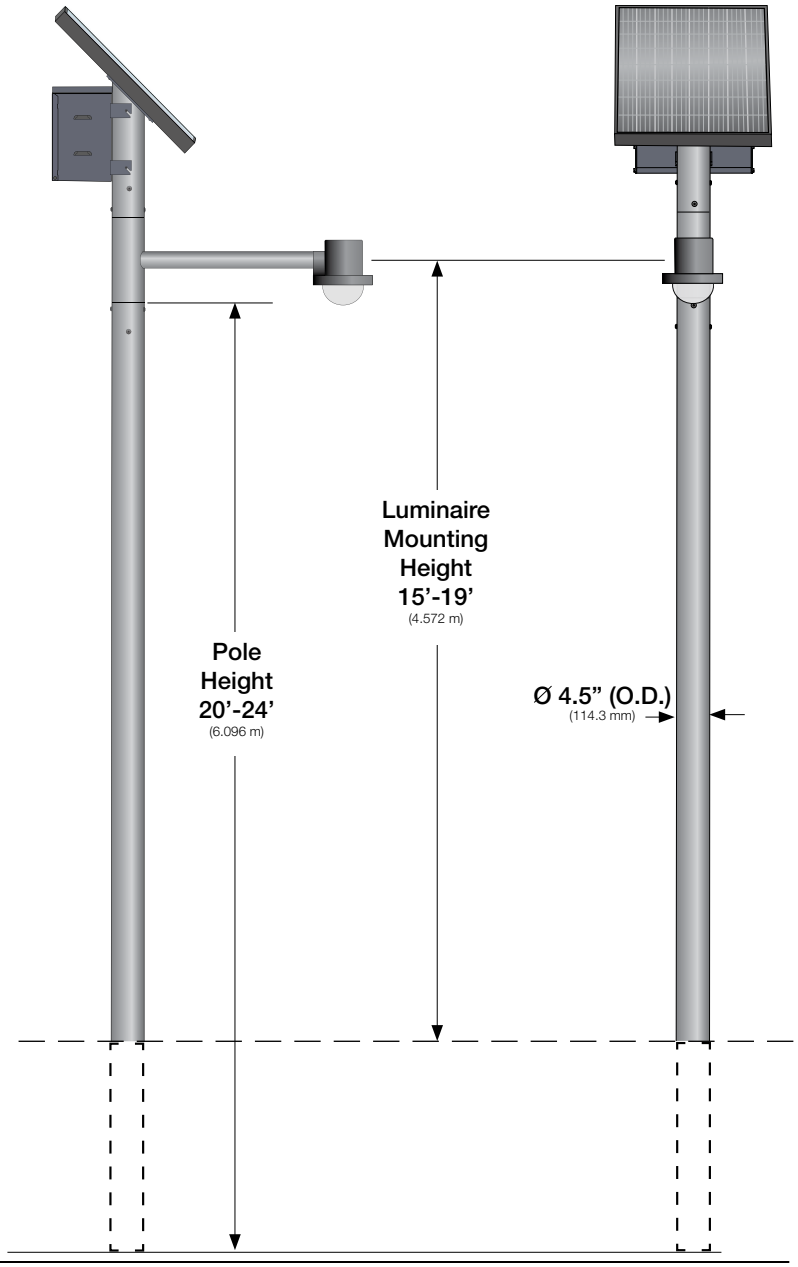
Burial depth for GreenWay™ pole for the following wind speeds:

- 150 mph -depth is 7 feet
- 120 mph - depth is 6 feet
- 90 mph - depth is 5 feet

A consideration of field conditions such as (but not limited to) wind zone, height, and vibration must be given by the designer/specifier for the appropriate application. Performance of poles is dependent upon proper support/ attachment of pole to adequate foundation design. SOL does not design or offer recommendations for foundations. EPA values assume that the bottom of the pole is at grade level. Consult project engineer for embedding, soil condition, depths and foundation material.

WARNING: This design information is intended as a general guideline only. The customer is solely responsible for proper selection of pole, luminaire, accessory and foundation under the given site conditions and intended usage. The addition of any items to the pole, in addition to the luminaire, will dramatically impact the EPA load on that pole. It is strongly recommended that a qualified professional be consulted to analyze the loads given the user's specific needs to ensure proper selection of the pole, luminaire, accessories, and foundation. SOL assumes no responsibility for such proper analysis or product selections. Failure to insure proper site analysis, pole selection, loads and installation can result in pole failure, leading to serious injury or property damage.

GENERAL INFORMATION: Mounting height is the vertical distance from the base of the lighting pole to the center of the luminaire arm at the point of luminaire attachment.



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MADE IN U.S.A

rev. 0311 MRKT-GY-001-2

aiSUN™ Solar Light Controller/LED Driver SC300/350

Reliable. Renewable. Remarkable.

aiSUN™ is the Central Processing Unit of a solar light. Featuring advanced microprocessor control and a highly efficient design, aiSUN™ controls and monitors solar lights with more flexibility and capability than ever before. aiSUN™ is an LED driver with an integrated solar charge controller.

Project Name: _____

Type: _____ **Qty:** _____

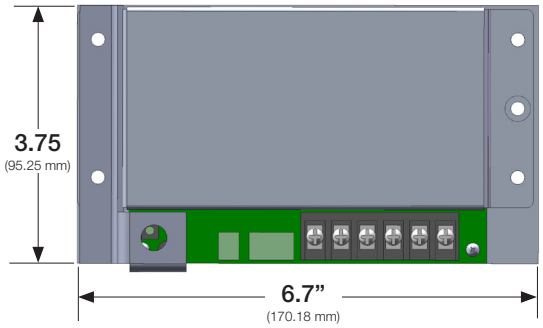
Product:

AS	15	GYZ	5	99	99	99	
Series	Load	# Fixtures	PS/Quads	Hrs Dusk	Dim	Hrs Dawn	Options

Load Watts	*# of Fixtures*	*PS or Quads*		*Hrs after Dark*	*Dim %*	*Hrs before Dawn*	*Options*
15 15 W **20** 20 W **30** 30 W **45** 45 W **55** 55 W **##** Custom Load (insert #)	**1** Single **2** Dual	**L1** 11 LEDs **24** 24 LEDs **48** 48 LEDs **TT** 20/20 **XX** 10/10	**Q1** 1 Quad **Q2** 2 Quad **Q3** 3 Quad **Q3** 4 Quad	**04** **06** **08** **99** All Ngt	**00** **25** **40** **50** **99** All Ngt	**00** **02** **04** **99** All Night	**0** None **1** Motion Sensor **2** Seasonal Switch **3** Wireless **A** 1+3 **B** 1+2 **C** 2+3

Batteries, Panel, and Hours of Operation requirements to be determined by SOL based on your project requirement, please consult factory.

Top View



Side View

Key Benefits of aiSUN™

- Flexible operating modes (dusk-to-dawn, split night, split night with dimming)
- Fully tested at the SOL factory before installation and shipment to ensure reliable operation and trouble-free startup
- Programmed by SOL based on your project requirements eliminating confusing switch and knob setting.
- Made in the USA
- CE certified
- Integrated charging and LED driving system reduces system failures overall system complexity and cost
- Integrated surge protection and noise reduction
- Temperature compensated and PWM controlled battery charging to ensure full battery life of 5 years
- Auxiliary contact closure input seamlessly integrates manual control, motion detectors, or external control inputs
- Full solid state design without electrolytic capacitors ensure 100,000 hour life for no maintenance
- Ten day/night memory averaging to ensure accurate turn on and turn off lights to prevent false response due to weather variations
- 10 year warranty

CE

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EternO® 4 Solar Light Controller/LED Driver

Reliable. Renewable. Remarkable.

Additional Features

- Over Voltage Protection.
- LED Short Circuit Protection.
- Internal PV Disconnect (no external Diodes Required).
- Test button & Diagnostic LEDs.
- Reverse battery polarity protection.
- Self calibrating load, timing, and charging circuitry.

Technical Specifications

FEATURE	VALUE
ELECTRICAL	
Operating Voltage	12V
Operating Current	0-30A
LED Drive Current	3A – 5.0 A
Battery Voltage, Minimum	10.0 V
Battery Fuse, External	25 A FB
Low Voltage Disconnect(LVD)	11.5 VDC, 23.0 VDC (12V/24V operation)
Low Voltage Reconnect (LVR)	>LVD reconnects next night
CHARGING	
Self-consumption	< 20 mA
LED Indicator	3 LEDs
Lamp Drive Voltage	40 VDC Max.
PHYSICAL	
Operating Temperature	-40 to +40 °C (-40 to +133 °F)
Humidity	100% Condensing
Packaging	Resin Potted, IP66
Weight	.453 kg (16 oz.)
Size (L x W x H)	167.38 x 93.35 x 31.57 mm (6.59 x 3.68 x 1.24 in)

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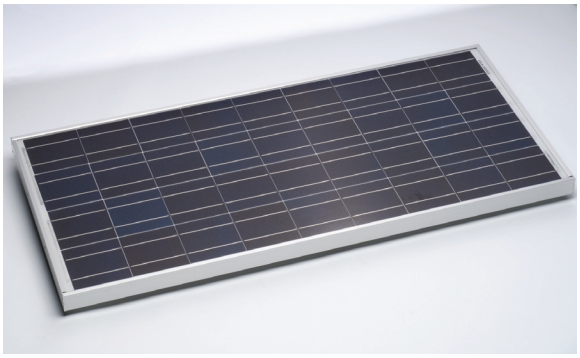
Solar Power Array (SPA 125)

Reliable. Renewable. Remarkable.

HIGH EFFICIENCY PV MODULE

Relying on SOL's stringent manufacturing standards and latest poly-crystalline PV technology, the module provides the highest possible energy output per watt. Conversion and exceptional low-light performance enable it to deal with the most challenging conditions of military, utility, residential and commercial installations.



FEATURES

- Outstanding low-light performance.
- High transparent low-iron, tempered glass.
- All Aluminum anodized frame construction will not rust or corrode for long-lasting visual appeal.
- Withstands high wind-pressure and snow load.
- Unique technology ensures freezing and warping do not occur.
- Quick connect mounting hardware and wiring harness assists in fast and reliable installation.
- Design life of 25 years.
- 20 year module output limited warranty.

ELECTRICAL SPECIFICATIONS

Maximum power at STC [Pmax]	125W
Power tolerance	+ 5%
Nominal Voltage	18V
Voltage at Pmax [Vmp]	17.51V
Current at Pmax [Imp]	7.14A
Short-circuit current [Isc]	7.62A
Open-circuit voltage [Voc]	21.86V
Temperature coefficient of Isc	(0.065±0.005)%/ °C
Temperature coefficient of	-(80±10)mv/°C
Temperature coefficient of power	-(0.5±0.05)mv/°C
NOCT (Air 20°C; Sun 0.8kW/m^2; Wind 1m/s)	46°C ±2°C (114.8ºF ±2°F)
Operating temperature	-40°C to +85°C (-40°F to +185°F)
Maximum system voltage	1000V DC

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0311 MRKT-SPA125-002-1

Solar Power Array (SPA 125)

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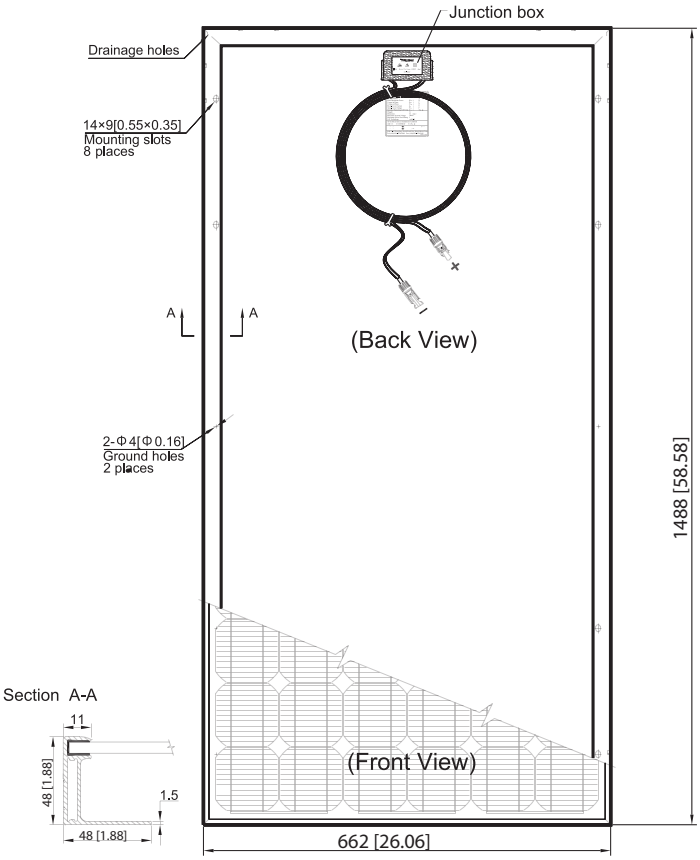
Reliable. Renewable. Remarkable.

MECHANICAL SPECIFICATIONS

Dimensions of module L x W x H	1488 mm x 662 mm x 48 mm (58.58” x 26.06” x 1.88”)
Weight	13 kg (28.6 lbs.)
Cell	Poly-crystalline silicon solar cells 36 cells in a 4 x 9 matrix connected in series
Diodes	Three 10A, Schottky by-pass diodes included
Construction	Front: High-transmission 3.2mm tempered glass; Encapsulant: EVA Back: TPT
Frame	Clear anodized aluminum alloy; Color: silver

MODULE DIAGRAM



Note: mm[inch]

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Battery Enclosure (E)

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Project Name: _____

Type: _____ **Qty:** _____

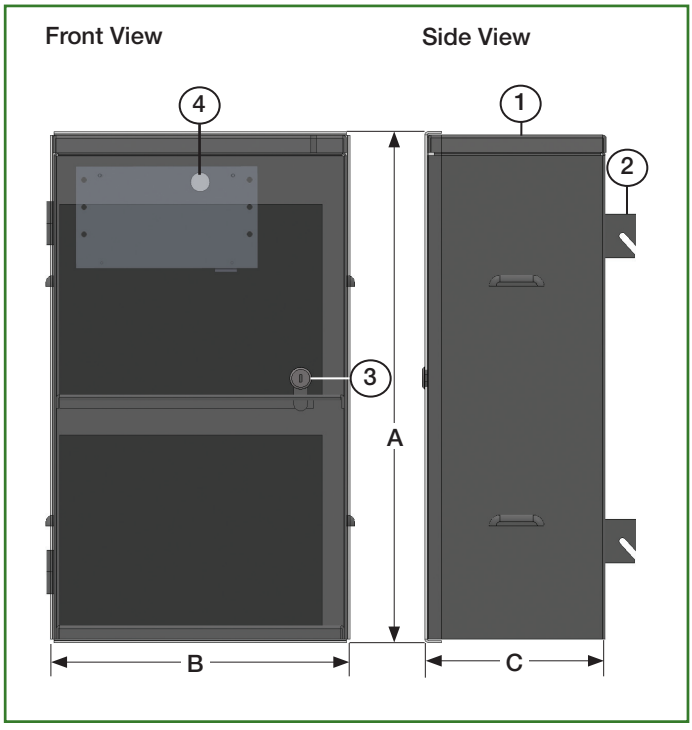
Product:

E	G100	BZ	E	H
Series	Size	Color	Driver	Mounting

Example: ED200-BK-A-LH

Holds NRGLIfe™ gel cell battery(s) and aiSUN™ CPU. Single battery enclosure holds one battery. Dual enclosure holds one to two batteries. Quad enclosure hold three to four batteries. Made in USA.

Series	*Enclosure Size*	*Color*	*Driver*	*Mounting*
E Battery Enclosure	G100 Single Battery D200 Dual Battery Q400 Quad Battery	BZ Bronze BK Black GR Green WH White CF Custom Finish (Specify RAL#) NF Natural Mill Finish	A aiSUN™ D Discrete	LH Locking High LL Locking Low SH Non Locking High SL Non Locking Low
Batteries, Panel, and Hours of Operation requirements to be determined by SOL based on your project requirement, please consult factory.				



1. **Housing -** Made of Grade “A” corrosion resistant aluminum unit that holds SOL NRGLife™ battery and smart controller. Can be powder-coated. Vented to allow air circulation around batteries. Easy access through hinged/removable front cover to allow quick servicing or battery replacement.
2. **Mounting -** Features four that mount to main bracket and is shaded by solar module.
3. **Optional Locking Device -** Provides additional anti-theft security feature.
4. **Access Hole -** Maintenance-free 100% recyclable 100Ah rated sealed gel cell battery provides a minimum of 5 nights of battery back-up. Mounted inside of hinged battery enclosure for ease of maintenance.
5. **Warranty -** 10 years on electronics, wiring, fixture and 20 years on mounting hardware and solar panel.

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Battery Enclosure (E)

Reliable. Renewable. Remarkable.

Data

	G100	D200	Q400
Number of NRGLife™ Batteries	1	1-2	3-4
Dimensions: Length x Width x Depth (A x B x C)	11” x 13” x 8” (inches) 279.4 x 330.2 x 203.2 (mm)	23” x 13” x 8.5” 584.2 x 330.2 x 215.9 (mm)	24” x 24” x 7.5” 609.6 x 609.6 x 190.5 (mm)
Weight	12 lbs. / 5.44 kg	16 lbs. / 7.26 kg	28 lbs. / 12.70 kg
Effective Projected Area (EPA)	1.5 sq. ft. / 0.1394 m^2	2.07 sq. ft. /0.1923 m^2	4.0 sq. ft. /0.3716 m^2

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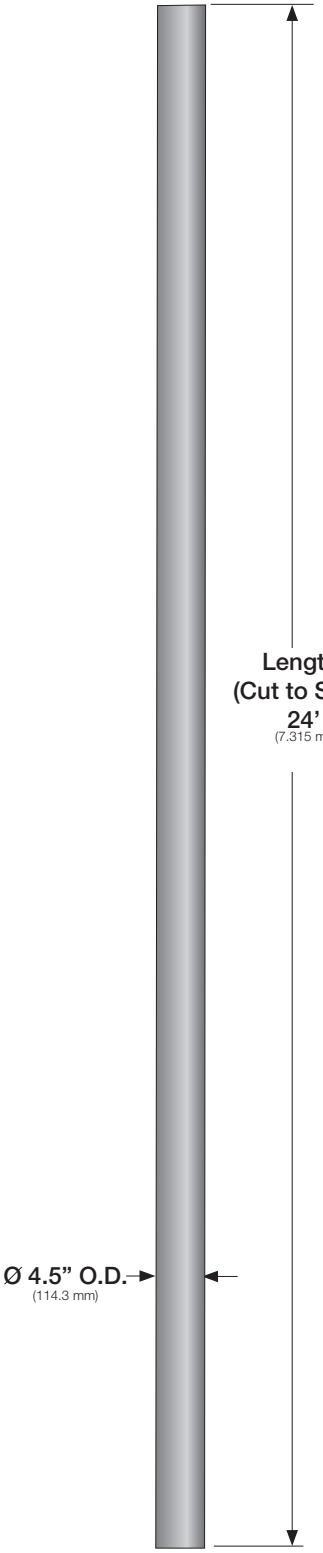
GreenWay® Direct Burial Aluminum Pole

Reliable. Renewable. Remarkable.



Project Name: SOL Inc

Project No.: _____ **Qty:** _____

Ordering:

P	24	BZ	DB
Series	Length	Color	Base

Series	***Length***	***Color***	Weight	*EPA Information (ft^2)				***Base***
				90mph	110mph	120mph	140mph	
P Aluminum embed sch. 40 Pole	**24** 24 ft. (7.315 m) Cut to Size	**BZ** Bronze **BK** Black **GR** Green **WH** White **MF** Mill Finish Aluminum **CP** Custom Paint (Specify RAL#)	24' 90 lbs (40.82 kg)	27	17	14	9.5	**DB** Direct Burial

Other pole configurations available, consult Sol Inc. EPA Calculations allow for 1.3 Gust Factor. Additional wind loading, in terms of EPA, from pv panel, arm, luminaire, and other accessories attached to the pole, must be added to determine overall EPA . Warning: Additional wind loading, in terms of EPA, from banners, cameras, floodlights and other accessories attached to the pole, must be added to the luminaire(s) EPA before selecting the pole with the appropriate wind load capability.
**EPA Calculations based on 15' above ground install.*

Pole - 6061-T6 Schedule 40 aluminum pipe. Conforms to ASTM B221
Nominal: 4" / O.D.4.5"
Wall: 0.237". Meets ANSI C136.36A-2010, for Roadway and Area Lighting Equipment-Aluminum Lighting Poles.

Finish - Sol utilizes a highly controlled, environmentally friendly, and proprietary process for their powder coating that features an industry-leading 10 year powder coating warranty.

Sol powder coated products are highly scratch resistant and feature excellent weather, ultra violet, and light resistance for superior gloss and color retention. Sol powder coating meets A.A.M.A. 2604-98/05, GSB and Qualicoat 2 specifications for impact, bending, hardness, weathering, light fastness, cross hatch adhesion, color change, gloss retention, humidity resistance (3,000 hour), and salt spray resistance (3,000 hours). Applied to achieve a 4 to 7 mil thick coat and impact rating of 160 psf.

A consideration of field conditions such as (but not limited to) wind zone, height, vibration must be given by the designer/ specifier for the appropriate application. Performance of poles is dependent upon proper support/attachment of pole to adequate foundation design. Sol does not design or offer recommendations for foundations. EPA values assume that the bottom of the pole is at grade level.

Warranty - Poles include warranty from manufacturer. See Warranty Information on www.solarlighting.com for complete system details and exclusions.

Call Sol (1.800.959.1329) if there are any questions, or for any assistance in determining suitability with appropriate fixtures.

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GreenWay® Direct Burial Aluminum Pole

Sol®
Reliable. Renewable. Remarkable.

SPECIFICATIONS

6061-T6 Aluminum schedule 40 pipe Conforms to ASTM B221. Nominal: 4" / O.D.4.5" Wall: 0.237"

Standard up to 24 ft. cut to size.

Weight: 75 lbs-20' / 83 lbs-22' / 90 lbs/24'

Soil is Augured 14" diameter and filled with concrete. It is recommended to check locals codes before burial.

Burial depth for GreenWay® pole for the following wind speeds:

- 140 mph -depth is 7 feet
- 120 mph - depth is 6 feet
- 90 mph - depth is 5 feet

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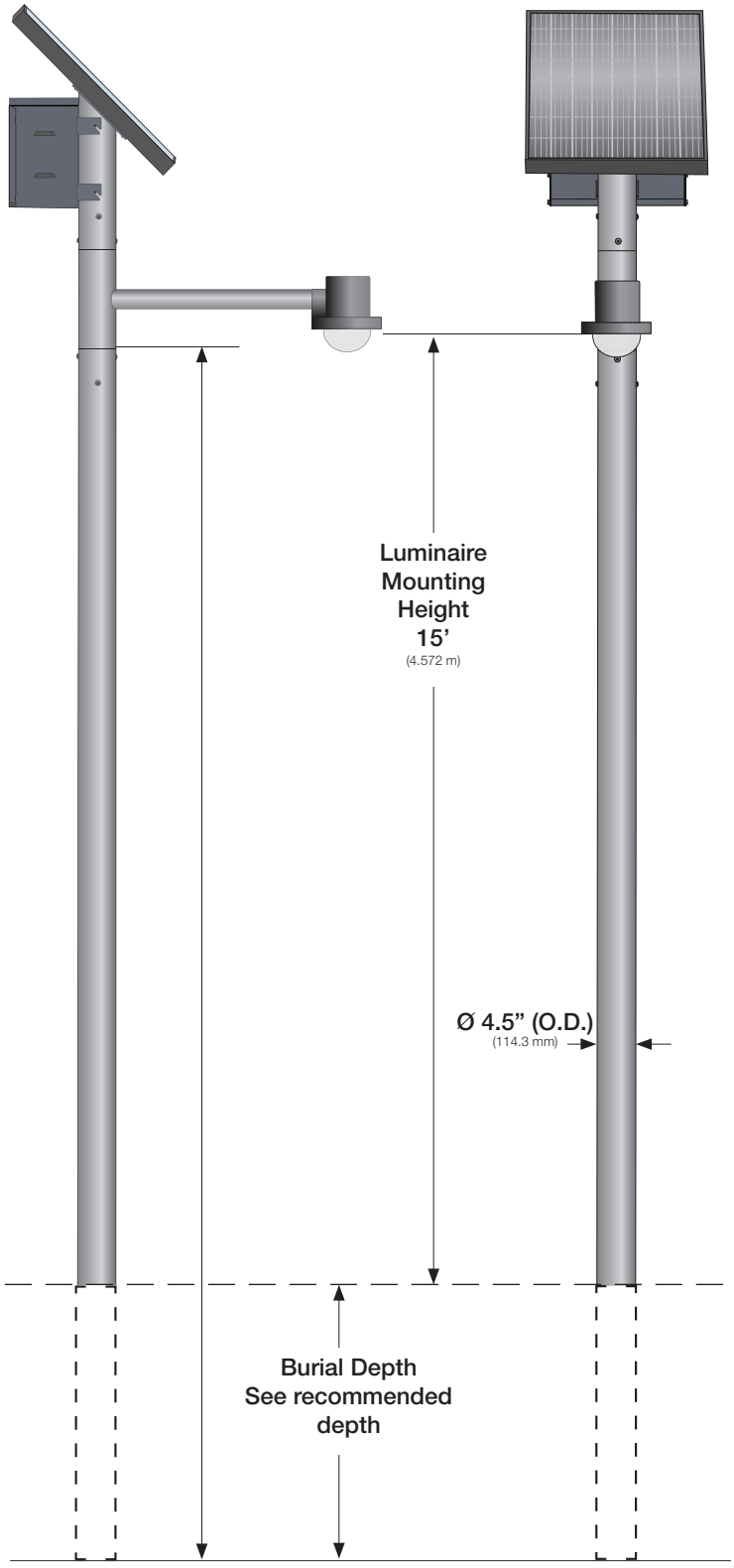
GENERAL INFORMATION: Mounting height is the vertical distance from the base of the lighting pole to the center of the luminaire arm at the point of luminaire attachment.

Pole meets ANSI C136.36A-2010, for Roadway and Area Lighting Equipment- Aluminum Lighting Poles.



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