



Innovation Patent No:
2016102225

SBL2 Series S Model



Solar Powered LED Bollard



The all new SBL2 S Model solar powered LED pole top bollard light is ideal for lighting locations where cyclones/hurricanes/typhoons, tsunamis, tidal surges and generalised flooding is prominent. The sealed self-contained design combined with high quality impact resistant construction with proven market performance makes the SBL2 S Model the perfect asset in high risk areas where continuous lighting is required no matter what situation arises.

KEY FEATURES OF THE SBL2 OVER COMPETITORS & ON-GRID PRODUCTS

- Low cost and quick installation, no trenching, cabling or wiring required
- IP68 Certified (AS/NZS 60529:2004 IPx8, IP4x, IP6x) submersible to 3m depth
- IK10 Certified (IEC 62262:2002) can withstand impact from debris and vandalism
- Isolated from power outages for continuous illumination
- Up to 70% more autonomy than competitors at full power output dusk until dawn

From vandal attack, severe high wind events, flood disasters, monsoonal rain, crashing waves, golf ball size hail or just daily snow coverage, no similar product will out perform our SBL2 S Model Solar LED Bollard pole top light design for durability and continuous performance. Electronic circuit design fully operationally tested in the field from Saudi Arabia to the sub zero snow regions of Canada.

TECHNICAL SPECIFICATIONS

Overview

- **Dome Material** SABIC SLX Lexan (Highest UV Stabilised PC available)
- **Housing Material** LG LUPOY (UV Stabilised)
- **Internal Materials** STAREX ASA
- **LED Chips** 8 x 5mm Piranha LED Super Bright
 - Asymmetrical Light Distribution
4300K +/- (Natural White) / 3000K (Warm White)
 - Symmetrical Light Distribution
4300K +/- (Natural White) / 3000K (Warm White)
- **Voltage** 3.2V (ELV intrinsically safe no UL certification required for USA)
- **Operate Temp** -30°C ~ +60°C ambient (runs safely up to 100°C)
- **Maintenance** Annual clean and polish for peak performance
- **Warranty** 7 Years (subject to SBL Warranty T&C's)
- **Certifications**
 - IP68 (AS/NZS 60529:2004 IPx8, IP4x, IP6x)
 - IK10 (IEC 62262:2002)
 - Photometric (IESNA LM-79-08)
 - Hazardous Area/CE/RCM (T.B.T)
- **Weight** Net Weight 3kg (6.6lbs)

Solar Module

- **Wattage** 5w Mono-Crystalline
- **Vmp (V)** 5V
- **Imp (A)** 1 Amp
- **Design Life** 10 Years @ 100%

Battery

- **Type** 3.2V 17Ah Cylindrical LiFePo4
- **Cycles** 3700 (expected minimum)
- **Design Life** 10 Years + (expected minimum)

Electronics



- **Design Life** 10 Years + (expected minimum)
- **Runtime** Dusk until Dawn full power
- **On/Off** Solar Panel Voltage

Poles (25um anodised standard or powder coated)

- **Material** 6106 T6 Aluminium Marine Grade
- **Grade** High Tensile / Light Weight
- **Durability** High Corrosion Resistance
- **Collar** 25um Anodised
- **Hardware** Security Bolts 4 x M6 - 316 SS



Can Submerge



Vandal Resistant



No Power Bills



Simple & Low Install Cost



Clean Energy Lighting



Minimal Maintenance



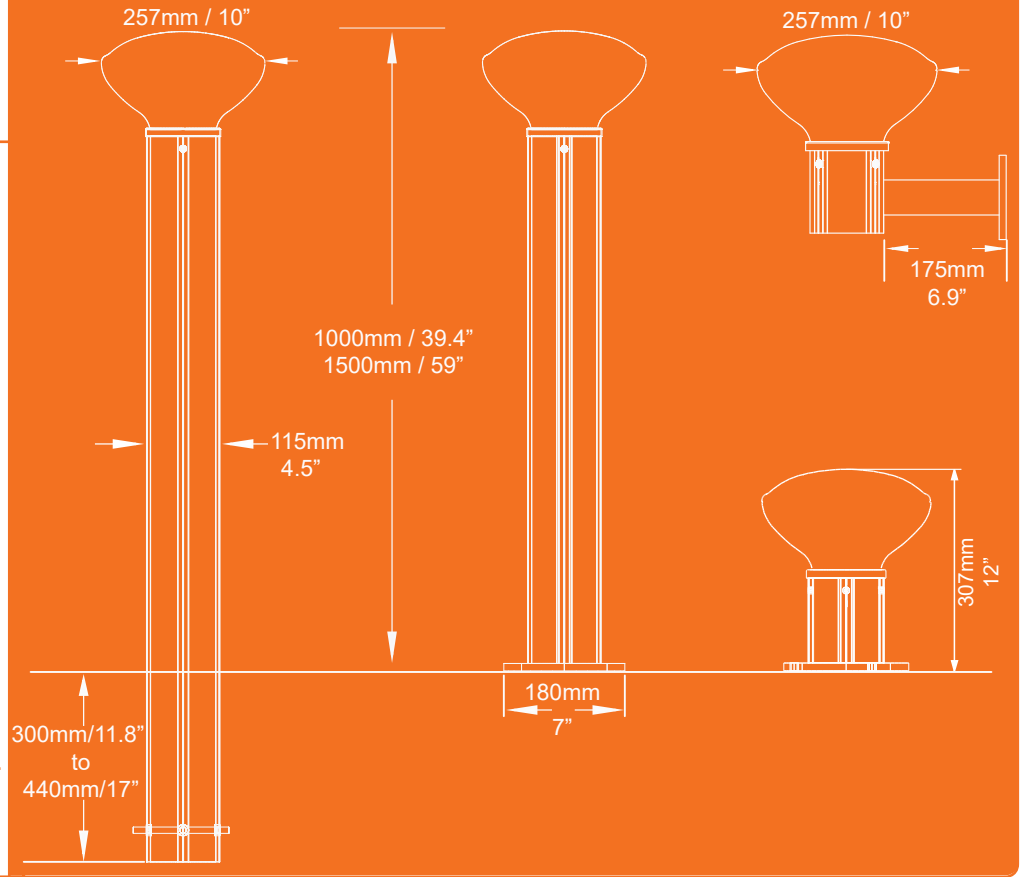
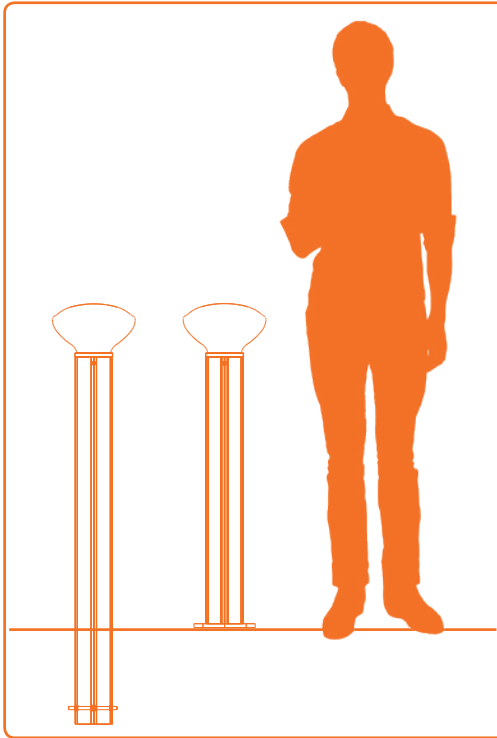
Install Yourself



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ORDER MATRIX

Power	Type	Pole Length	Installed Height	Mounting Type	Powder Coating Options
040	ANW	# 130mm/5.1"	290mm / 11.4"	# WM - Wall Mount Anodised - Silver	BK - Black Satin 27219268 (Default Colour)
080	SNW	^ 142mm/5.6"	302mm / 11.9"	# WMPC - Wall Mount Powder Coated	CC - Custom Colour From Dulux Colour Range DURALLOY or ALPHATEC (under 15 poles \$200 Loading on top of total cost)
120	AWW	^ 840mm/33"	1000mm / 39.4"	* DBA - Direct Bury Anodised - Silver	
160	SWW	* 1140mm/44.9"	1000mm / 39.4"	* DBPC - Direct Bury Powder Coated	
200		^ 1340mm/53"	1500mm / 59"	^ BPA - Base Plate Anodised - Silver	
240		* 1790mm/70.4"	1500mm / 59"	^ BPPC - Base Plate Powder Coated	
280		^ 1840mm/79"	2000mm / 79"		
		* 2440mm/96.5"	2000mm / 79"		

Ordering Example : **SBL2-160ANW-1140DBPC** = 160mA Asymmetrical Natural White Light on 1140mm/44.9" Powder Coated Direct Bury Pole

Power Model	Type	Height	Mounting	Powder Coat Colour
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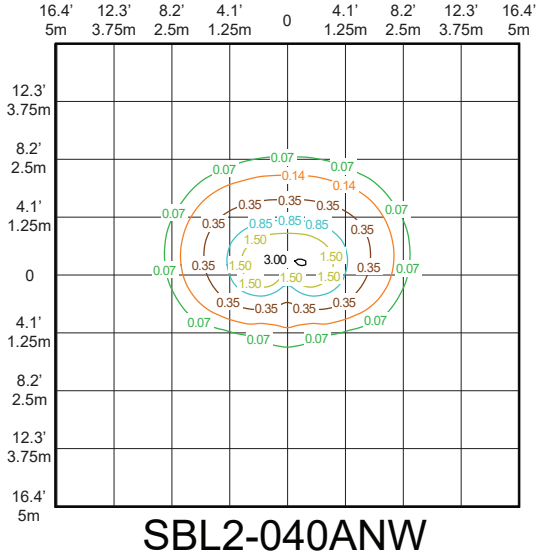
Notes:
- Specifications subject to change without notice
- All light levels in lux



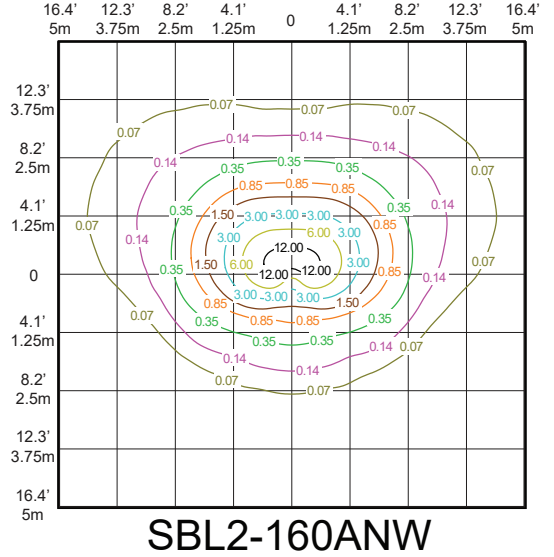
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ASYMMETRICAL ISOLUX EXAMPLES

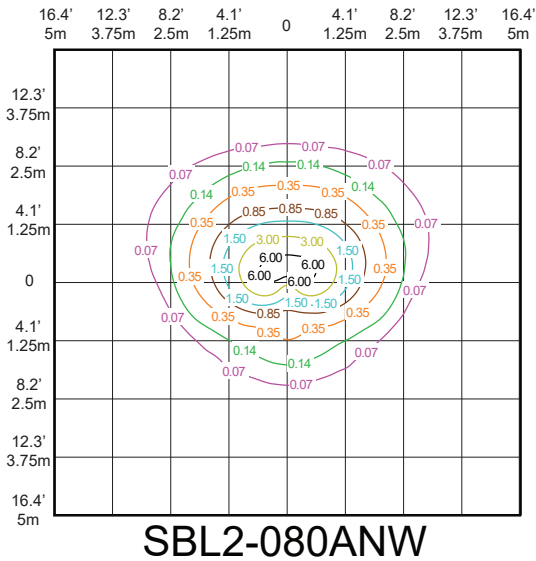
4300K +/- 300K LED - GRID = 10m / 32.8' x 10m / 32.8' All Values = Lux @ 1m / 40" Overall Height



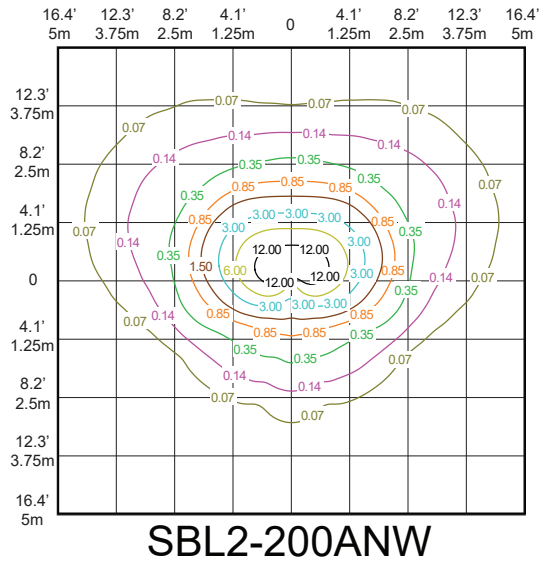
SBL2-040ANW



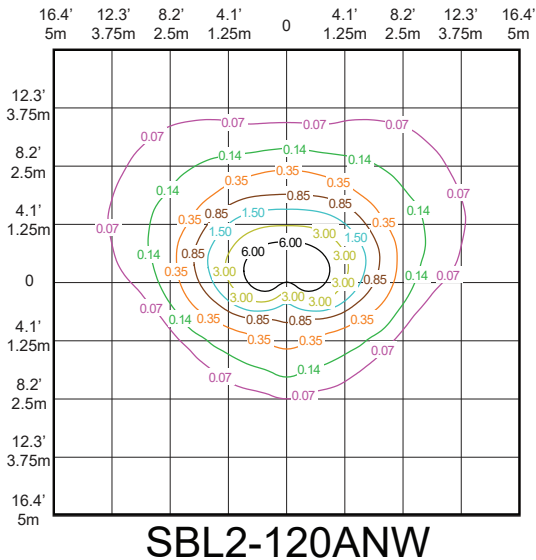
SBL2-160ANW



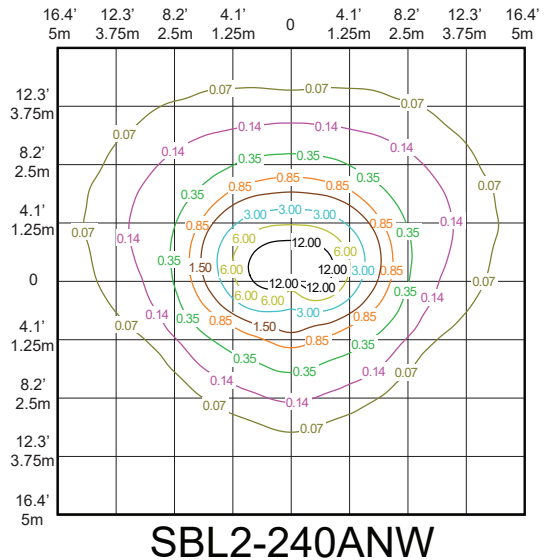
SBL2-080ANW



SBL2-200ANW



SBL2-120ANW



SBL2-240ANW



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P4 Spacing - Install Location - Autonomy

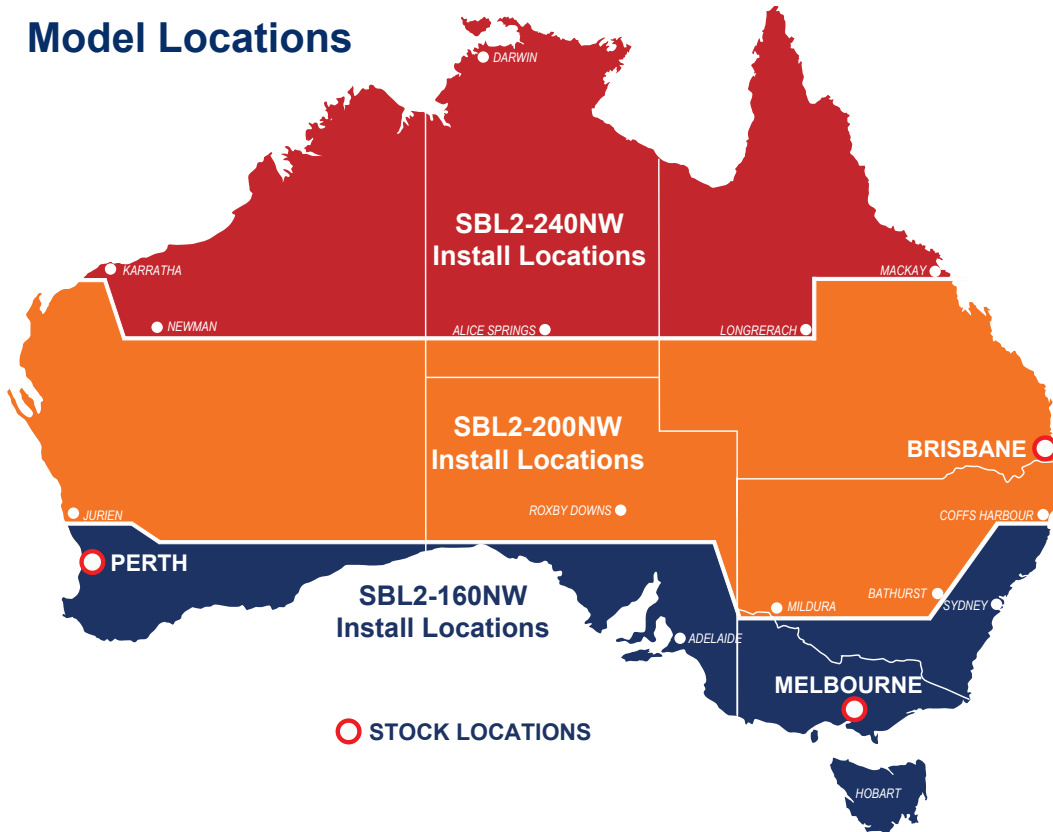
P4 Pole Spacing

(examples only - IES files available for your own spacing parameters)

AS/NZS 1158.3.1:2005 P4 Light Spacing Example based on Standard Asymmetrical Model 1m overall mounting height					
Model No.	Lumen	Path width			
		1.2m	1.5m	1.8m	2.4m
SBL2-040ANW	16	6m	4.9m	3.9m	3.7m
SBL2-080ANW	32	6.5m	6.5m	6.5m	6m
SBL2-120ANW	48	8.1m	8.1m	8.1m	7.5m
SBL2-160ANW	64	9.2m	9.3m	9.3m	8.9m
SBL2-200ANW	80	9.5m	9.6m	9.6m	9.2m
SBL2-240ANW	97	10m	10m	10m	10m
SBL2-280ANW	112	10.6m	10.6m	10.7m	10.6m

AS/NZS 1158.3.1:2005 P4 Light Spacing Example based on Standard Asymmetrical Model 1.5m overall mounting height					
Model No.	Lumen	Path width			
		1.2m	1.5m	1.8m	2.4m
SBL2-040ANW	16	5m	4.4m	4m	3.1m
SBL2-080ANW	32	8.6m	8.6m	7.4m	6.7m
SBL2-120ANW	48	9.4m	9.3m	9.3m	8.7m
SBL2-160ANW	64	10m	10m	10m	10m
SBL2-200ANW	80	10m	10m	10.1m	10m
SBL2-240ANW	97	11.3m	11.3m	11.4m	11.3m
SBL2-280ANW	112	12.5m	12.5m	12.5m	12.4m

Model Locations



Region	SBL2-160
Region	SBL2-200
Region	SBL2-240

Partly in Shade or Snow Covered Regions in Full Sun



Region	SBL2-120
Region	SBL2-160
Region	SBL2-200

Mostly in Shade



Region	SBL2-080
Region	SBL2-120
Region	SBL2-120

Mostly in Heavy Shade - Based on 15hr Runtime



Region	SBL2-040
Region	SBL2-040
Region	SBL2-040

Daily Depth of Discharge / Autonomy (Zero Daily Charge Assumed with 17Ah Power Cell @ 90%)

MODEL	MODEL LUMENS	POWER DRAW mA	LOCATION EXAMPLE	LONGEST NIGHT Hours	TOTAL Amp/s USED	DAILY DEPTH OF DISCHARGE	AUTONOMY IN DAYS	AUTONOMY IN HOURS
SBL2-040ANW	16	40	Reykjavik, Iceland	19.93	0.80	5%	19.2	382.5
SBL2-080ANW	32	80	Edmonton, Canada	16.73	1.34	9%	11.4	191.3
SBL2-120ANW	48	120	Dunedin, New Zealand	15.61	1.87	12%	8.2	127.5
SBL2-160ANW	64	160	Hobart, Australia	14.99	2.40	16%	6.4	95.6
SBL2-200ANW	80	200	Mildura, Australia	14.07	2.81	18%	5.4	76.5
SBL2-240ANW	97	240	Alice Springs, Australia	13.60	3.40	22%	4.5	61.2
SBL2-280ANW	112	280	Darwin, Australia	12.77	3.83	25%	4.0	51.0

*All above example locations based on installation location of SBL2 in direct sunlight all day without shading from dawn until dusk