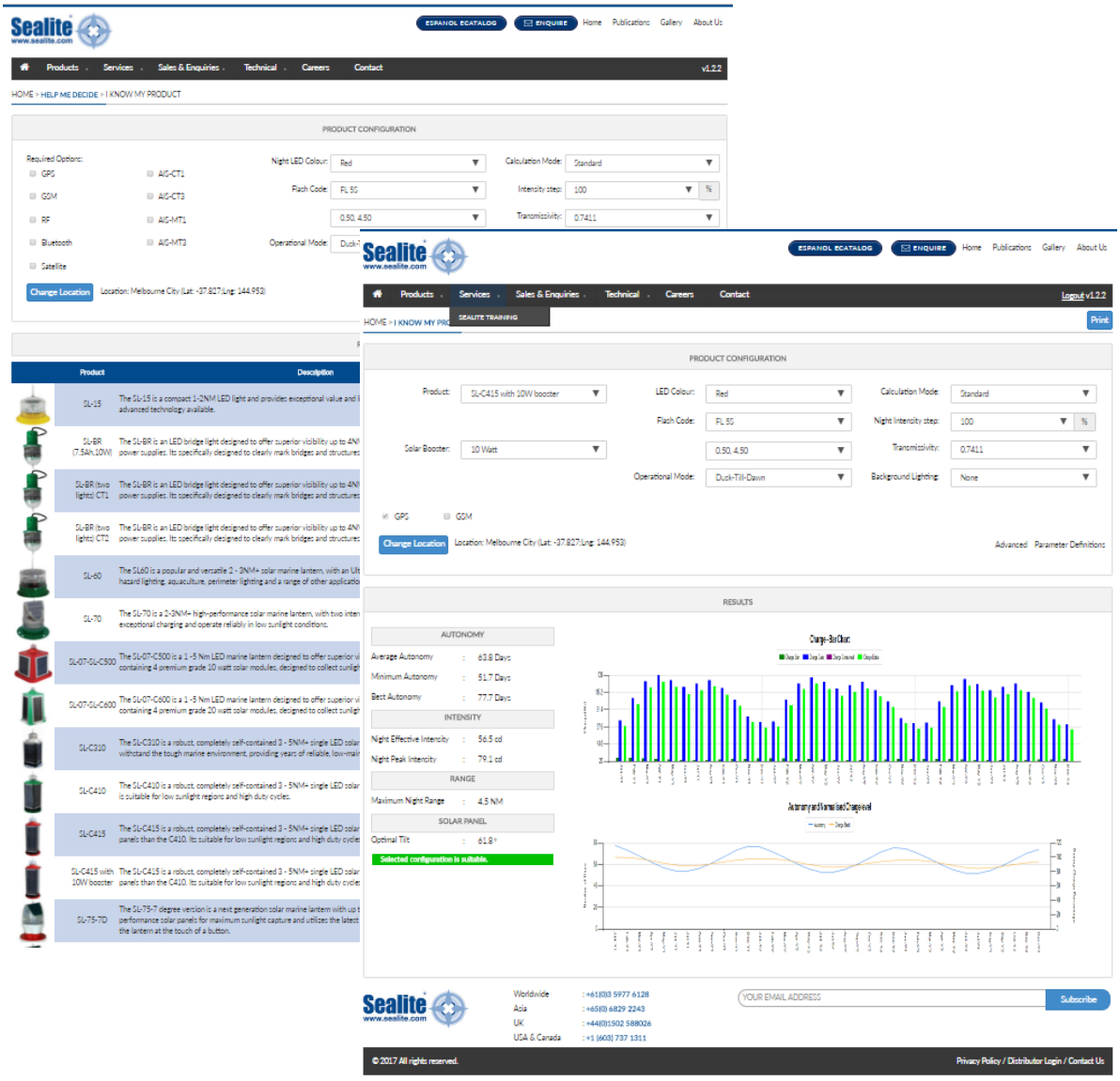
Sealite
www.sealite.com



Sealite Online Solar Calculator
Quick Start Guide

Version 1.

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Introduction

The Sealite Online Solar Calculator is provided to all users to assist in the correct selection and viability of a certain product for their area.

Accessing the Online Solar Calculator

To access the Sealite online solar calculator for assisting with product selection, or performing a detailed solar viability analysis, follow these steps.

1. Go to www.sealite.com on the internet,
2. Select the Technical tab,
3. Select the Solar Calculator Tab.

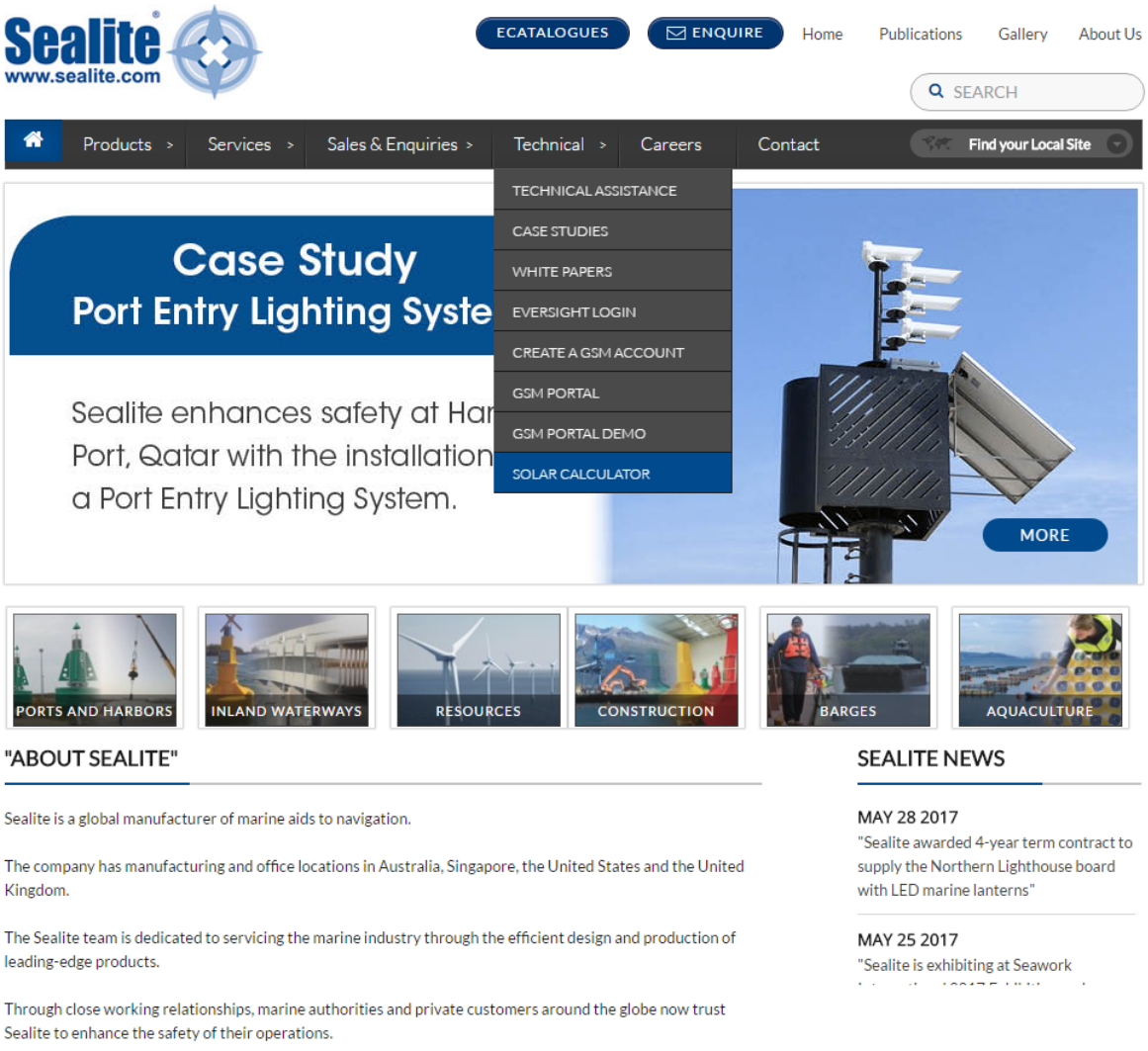

Figure 1

4. A pop-up will display asking you if you need help in deciding, or if you know your product.

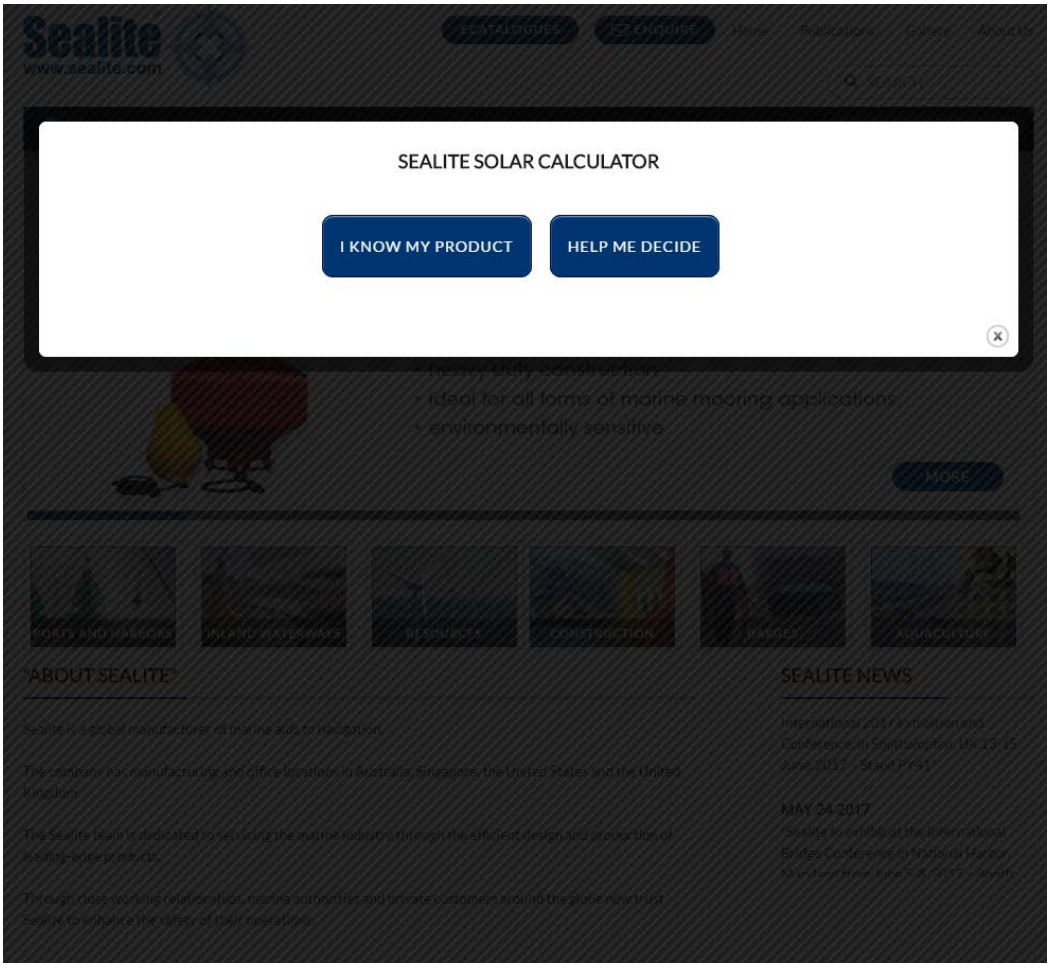

Figure 2

6. Select the Appropriate choice.

Help Me Decide

If you are unsure if which product will meet your needs, you can choose the “Help Me Decide” option of the Pop-up menu. This section will provide a list of suitable products that will work in the chosen area and configuration.

The first selection that you will be presented with is the Location selection. You will be presented with a Map, where you can either:

1. Pan and zoom to find your location
2. Type in the location Name, or Co-Ordinate Data in the search box and press search
3. Use the current location provided by your Internet service provider/device

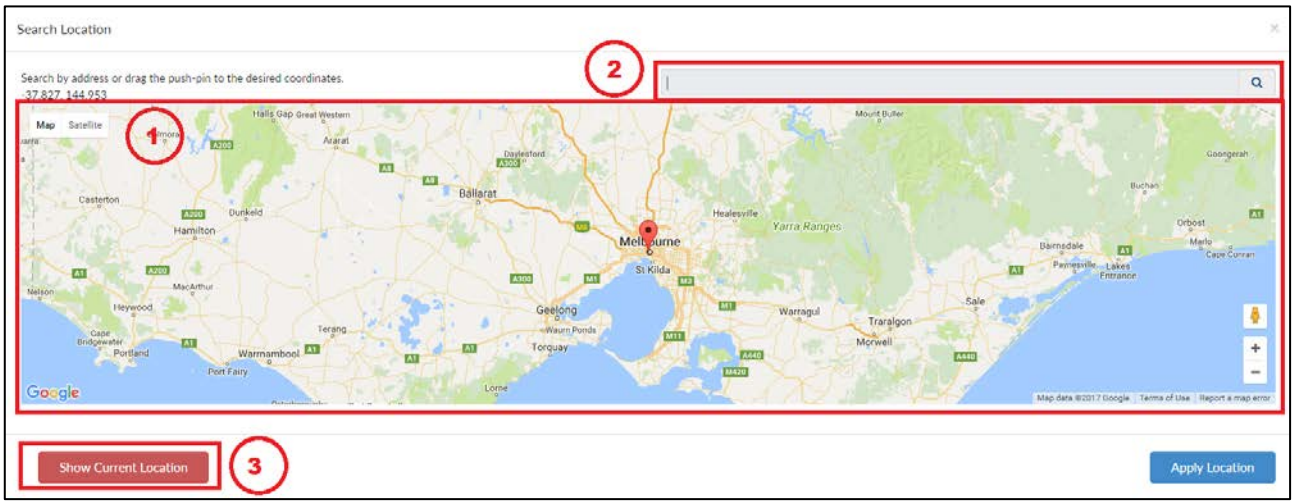

Figure 3

Once you have found your location, press the apply location the system will calculate and present all viable lanterns for the given location with some default selection parameters. On completion, a list will be returned as Figure 4. Please note due to the complexity of the calculations, this can take some time.

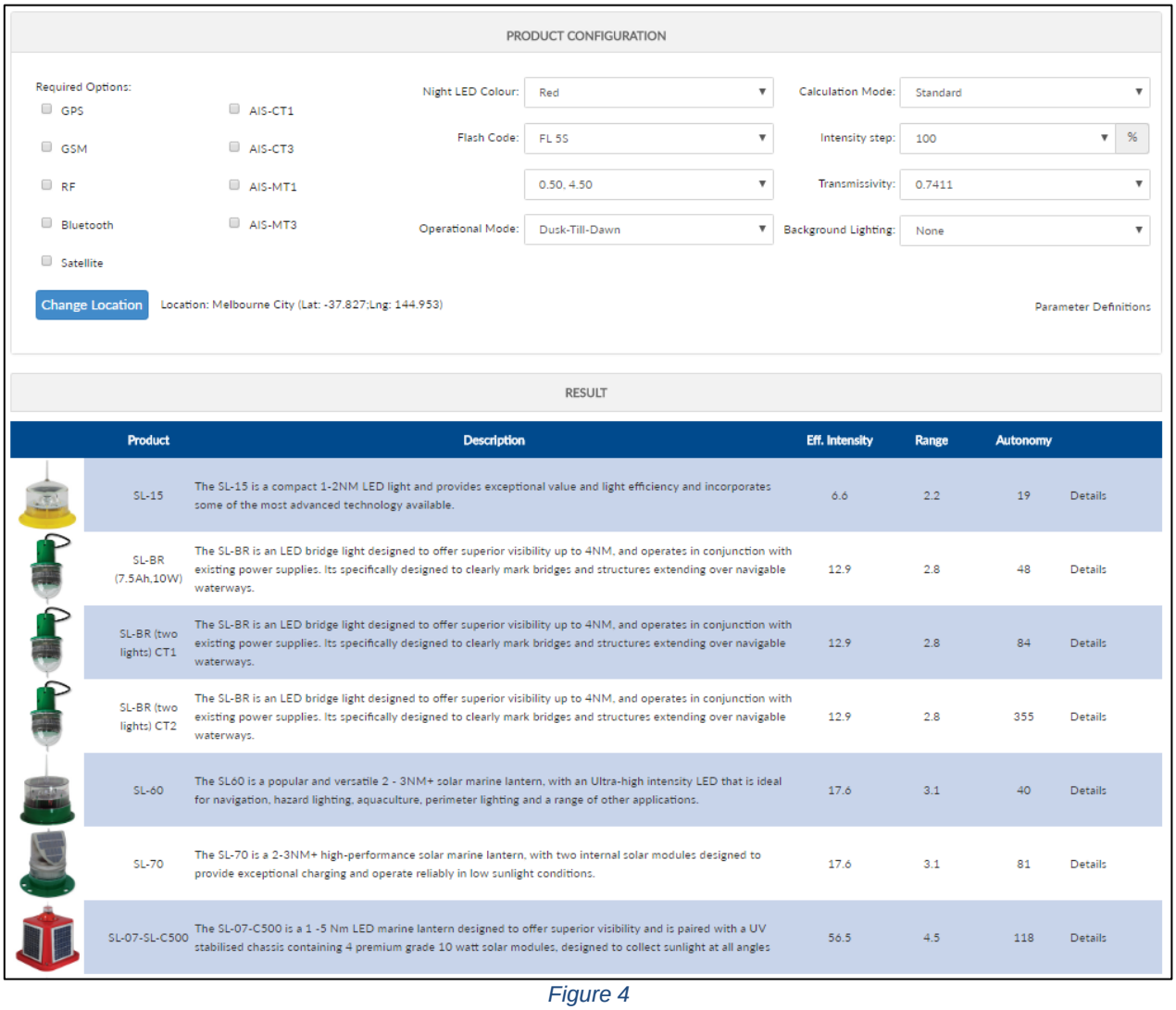

Figure 4

You can now use the product configuration section to input your desired configuration. In the product configuration area, you will have the ability to change the following options:

REQUIRED OPTION'S

Currently many Sealite products support one or more of the following options.

- GPS Synchronisation
- GSM Control & Monitoring
- RF Control
- Bluetooth Control
- Satellite Monitoring
- AIS

Please speak to your local Sealite sales representative for more information about the optional extra's.

LED COLOUR

This will be populated with a list of standard lantern colours.

FLASH CODE

This is a dropdown of the common Sealite flash codes. The selection has been broken down into two dropdowns, the first dropdown contains the flash code, the second the flash character.

OPERATIONAL MODE

This field displays the typical operational modes used by Sealite:

- Dusk-till-Dawn
- Always On
- Standby

CALCULATION MODE

The Solar Calculator support three calculation modes:

- Standard
- Range
- Intensity

The default mode is Standard.

Not all lanterns support setting the range and intensity via the Sealite Lantern Config Tool. Please review the product specific installation manual for more information.

Standard

In Standard mode, the lantern will provide the Effective Intensity and Range based on the selected Flash Code, Transmissivity and Lantern power selected in the selection Combo box. The selection dropdown box, will be populated with the following values:

- 25
- 50
- 75
- 100

The default option shall be 100.

Range
In range mode, the user can select a desired target range that has been populated in the selection dropdown box. The selection dropdown box will have pre-selected ranges up to the Lanterns Maximum.

Intensity
In "Intensity" mode the user can enter in a desired Effective Intensity in Candela. The selection dropdown box will have pre-selected Intensities up to the Lanterns Maximum.

Transmissivity
This will be populated with the following transmissivity options:
- 0.68
- 0.7411
- 0.85

The default option selected is 0.7411.

Background Lighting
This will be populated with the following Background Lighting options:
- NONE
- MINOR
- MAJOR

The default option selected is NONE.

RESULTS
Changing any of the Production Configuration Settings will result in an immediate update of the results table. The result table will **only** show lanterns that are viable for that area with the selected configuration.

The product results list contains the following fields:
- Product Image
- Product Name
- Product Description
- Effective Intensity
- Range
- Minimum Autonomy
- Detail Hyperlink

List ordering
The results list is by default ordered by minimum range to maximum range, however you can re-order the list by clicking on the headers (except for the description header).

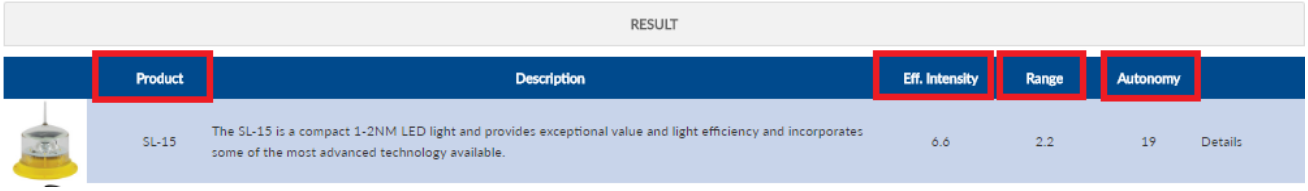

Figure 5

The details link will redirect you to the product page for more information regarding the lantern.

I know My Product

If you know which product you would like to deploy, but would like to perform a more detailed solar calculation, you can choose the “I know My Product” option of the Pop-up menu. This section presents a more detailed solar calculation for the chosen product, configuration and selected area.

If this is the first time you are browsing to the site, it will present you with a log in screen:

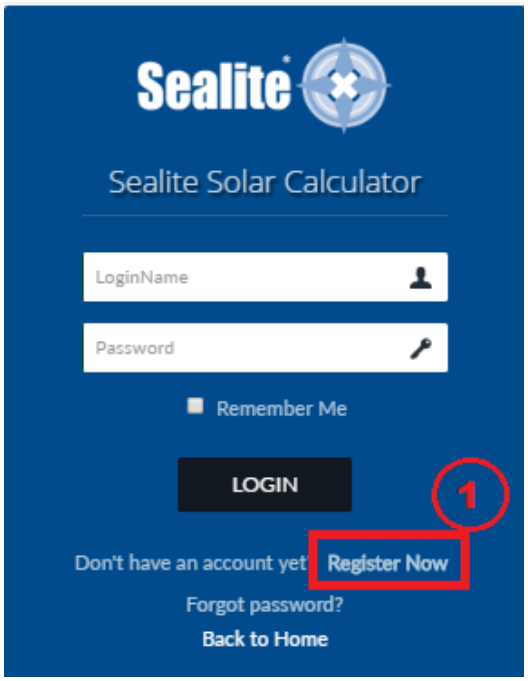

Figure 6

If you do not have user credentials, then you can register as a new user by clicking on the “Register Now” link. This will the guide you through the registration process.

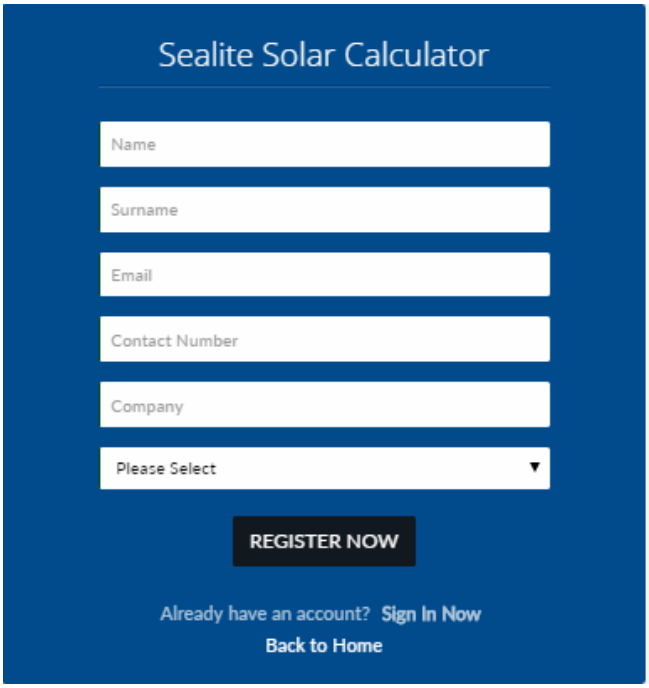

Figure 7

Every field in the Registration Screen is compulsory and needs to be completed with correct data. Once completed click the “REGISTER NOW” button.
The system will send an email confirming registration and providing the password for access.

You can log in to the solar calculator using the email and password provided in the confirmation email.

DISCLAIMER

One you are logged in and have selected the desired location, you will be presented with a Disclaimer. By accepting the disclaimer, you agree to the terms of the disclaimer. If you do not agree to the disclaimer, you will be redirected to the Pop-up prompt, where you can make another selection.

MAP

Once you are logged in, you will be presented with the Location selection. You will be presented with a Map, where you can either:

1. Pan and zoom to find your location
2. Type in the location Name, or Co-Ordinate Data in the search box and press search
3. Use the current location provided by your Internet service provider/device

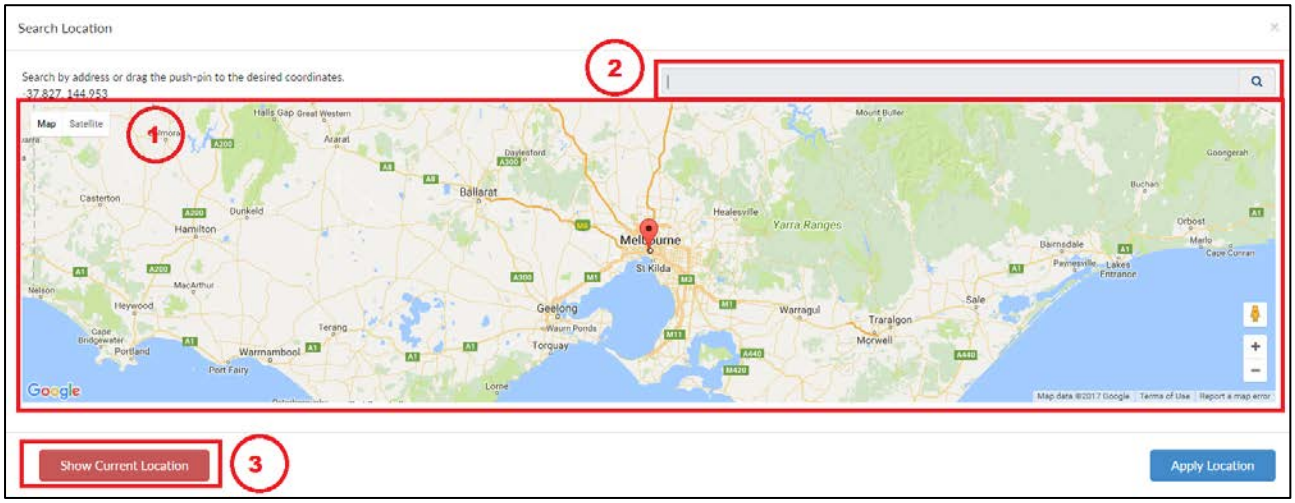

Figure 8

PRODUCT CONFIGURATION

You will now be presented with a product configuration screen, where you can select the following:

- Product Selection
- Battery Capacity Selection
- Solar Panel selection
- Solar booster
- Optional Extra Selection (GPS, GSM, etc.. If supported by the product)
- LED Colour
- Flash code
- Operational Mode
  - → Dusk-till-Dawn
  - → Always On
  - → Day & Night (if Supported by Product)
  - → Standby
- Calculation Mode
  - → Standard
  - → Range

→ Intensity
- o Transmissivity
- o Background Lighting

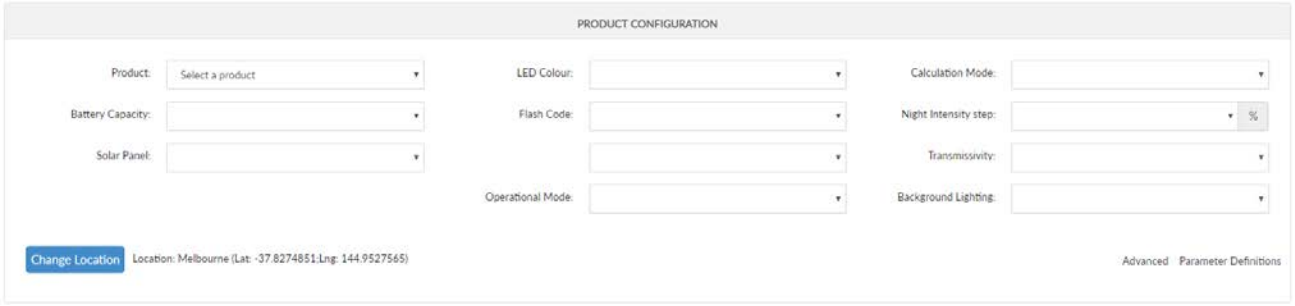

Figure 9

Product Selection
This dropdown box will contain a list of lanterns that are available for solar calculation. By selecting a product, the other fields will automatically update with the lantern specific data.

If a particular field is not displayed, that means the lantern does not support modification of that field.

Battery Capacity
This field will be populated with all available battery options that this product supports. It will only be displayed if the product has two or more battery options to choose from, otherwise it is not visible

Solar Panel
This field will be populated with all available solar panel options that this product supports. It will only be displayed if the product has two or more solar panel options to choose from, otherwise it is not visible.

Solar Booster
If the product supports the connection of a solar booster, then this field will be visible. The field will have the available solar booster configurations presented in the dropdown list.

Optional Extra's
This will denote the available options the product has. If the product does not have one of the options, it will not be displayed. Also, if the product has an optional extra set as default, the check box will be checked and marked as read-only, and cannot be changed by the user.

LED Colour
This will be populated with a list of available colours for the product selected. For instance, if the product only comes in Red and Blue, then the dropdown box will have two values loaded into them, namely Red and Blue.

Flash Code
This is a dropdown of the common Sealite flash codes. The selection has been broken down into two dropdowns, the first dropdown contains the flash code, the second the flash character.

Operational Mode
This field displays the supported operational modes of the lantern:
- o Dusk-till-Dawn
- o Always On
- o Standby

Calculation Mode

The Solar Calculator support three calculation modes:

- Standard
- Range
- Intensity

The default mode is Standard.

Not all lanterns support setting the range and intensity via the Sealite Lantern Config Tool. Please review the product specific installation manual for more information.

Standard Mode

In Standard mode, the lantern will provide the Effective Intensity and Range based on the selected Flash Code, Transmissivity and Lantern power selected in the selection Combo box. The selection dropdown box, will be populated with the following values:

- 25
- 50
- 75
- 100

The default option shall be 100.

Range

In range mode, the user can select a desired target range that has been populated in the selection dropdown box. The selection dropdown box will have pre-selected ranges up to the Lanterns Maximum.

Intensity

In "Intensity" mode the user can enter in a desired Effective Intensity in Candela. The selection dropdown box will have pre-selected Intensities up to the Lanterns Maximum.

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This will be populated with the following transmissivity options:

- 0.68
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- 0.85

The default option selected is 0.7411.

Background Lighting

This will be populated with the following Background Lighting options:

- NONE
- MINOR
- MAJOR

The default option selected is NONE.

RESULTS

The results section includes the following fields:

1. Autonomy (in Days - d)
   a. Average
   b. Minimum
   c. Maximum
2. Intensity (In Candela - cd)

   a. Effective
   b. Peak
3. Range (In Nautical Miles - NM)
4. Solar Booster. (Only visible if product Supports this)
5. Result Verdict:
   a. Green for Suitable
   b. Orange for Marginal
   c. Red for Not Suitable
6. Charge Graph
7. Autonomy Graph
8. Charge Graph

Result Verdict

The solar calculation will provide a recommendation regarding the viability of the product for the selected location and configuration. The options are:

1. Green for Suitable
2. Orange for Marginal
3. Red for Not Suitable

Green

The Solar product is viable and will work in the selected area and configuration.

Orange

The Product may work in the area but has limited autonomy

Red

The product will not work in the selected area and configuration

Sealite Online Solar Calculator Disclaimer

The Solar Calculator is the intellectual property of Sealite Pty Ltd. The information contained herein is available to authorized users.
Sealite has made every attempt to ensure the accuracy and reliability of the information provided on this website. However, the information is provided "as is" without warranty of any kind. Sealite does not accept any responsibility or liability for the accuracy, suitability or reliability of the information contained on this website. Any reliance you place on such material is therefore strictly at your own risk.
As each installation location is unique and radiation data may vary due to local and climatic conditions, the user should establish fitness of purpose before installing the light fixture.

Other Sealite Products Available

Marine Lanterns (1–19NM)

Monitoring & Control Systems

Bridge & Barge Lights

Marine Buoys (up to 3mt in diameter)

Area Lighting

Mooring Systems & Accessories

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