

# SolarOne®

## RFS Integra 300 -AGM/LFP

### Project Information

| Quick Facts              |                                           |
|--------------------------|-------------------------------------------|
| Applications             | Pathways and Residential Neighborhoods    |
| Distribution Types       | IES Types R2M,R2S,R3M,R3S,4,5             |
| Color Temperature        | 4000K,3000K (2,700 Special Order)         |
| Lumen Range              | 4,194- 4711                               |
| Mounting Height          | 28'                                       |
| Battery Type             | AGM or Lithium Iron Phosphate             |
| Finish (Standard Colors) | Black                                     |
| System Warranty          | 10-Year                                   |
| Battery Warranty         | 10 Year LFP / 5 Year AGM (10 Year Option) |



### Overview

If elegance is a priority, the RFS Integra 300 system delivers the ultimate value. A solar-skin on the surface of the pole creates best-in-class aesthetics and maximizes wind-load rating. All components are stored inside the base of the pole. There are no bulky panels and enclosures, so this solar lighting system is easier to install than a traditional street light. You will get years of reliable lighting backed by a 10-year system warranty. See details for battery warranty.

The Integra is about more than aesthetics. The CIGS solar module technology is as efficient as traditional mono-crystalline panels. Graffiti washes off the ETFE coating on the collector with soap and water and the tough material can take a beating. The panel's vertical orientation sheds dirt and debris, while resisting hail damage. A high security fastening system keeps vandals out.

### Design

SolarOne will support your planning or specification process with energy balance calculations, lighting design, and a shading evaluation specific to your project location. This Virtual Site Analysis (VSA) is custom for every project so you can see the details behind the recommendation.

Our analysis is based on industry standards such as IES & CIE, credible climate data sources like NASA & NREL, and over ten years of LED Solar Powered Lighting field experience with municipalities, military bases, and industrial facilities.

### SO-Bright® Controller

The SO-Bright® MPT-15 Controller provides wide flexibility, system protection and increased energy collection. The system provides best in class charging and extra benefits like snow/sand coverage protection and adjustable charging algorithms to allow you to use a range of battery types in the future. The controller comes pre-programmed for your environment and preferences but can be easily reprogrammed using the remote control included with every project. Local control does not require data plans, subscriptions or internet connection. For greater control and alert communications, SolarOne can provide SOFi Wireless Networking, using either cellular or network connections.



Value Added Partner

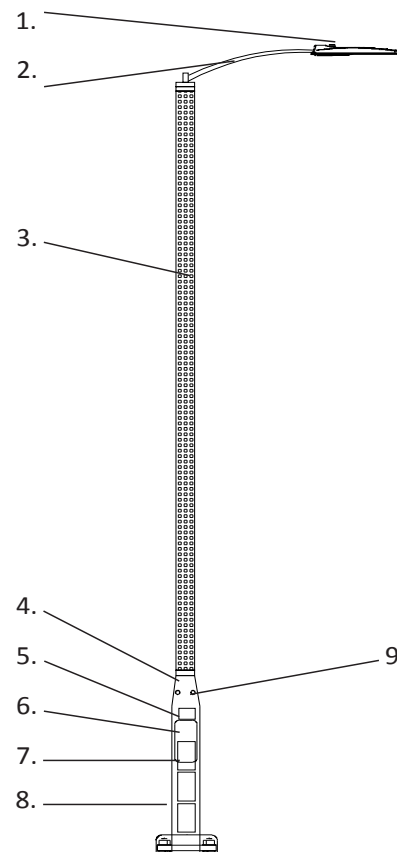
**PHILIPS**

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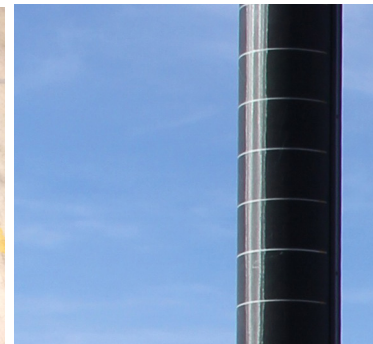
## Product Details

1. RFS Fixture - 16LED 700mA-35W
2. Choice of 1.5' straight arm or 4' sweep arm.
3. High efficiency (>16%) CIGs 300W solar collector is applied to the pole with a patented method to create a "solar skin"
  - Vandal resistant ETFE Coating
  - ByPass Diodes allow the panel to operated in partial shade
  - Certified to UL1703
  - Self-Cleaning Vertical Orientation
4. All components are stored inside a secured compartment within the base of the pole eliminating the need for an external battery box.
5. SO-Bright® MPT-15 ETL recognized controller with maximum power tracking collects up to 30% more energy, particularly in the winter months. RTE Energy Management ensures reliable service. The SO-Bright® MPT-15 controller delivers maximum flexibility in lighting levels, lighting hours and energy management. Contact your SolarOne® Solar Lighting Specialist to see what this system can do in your location.
6. Proprietary vandal-proof fastener keeps commercially available bits out.
7. Choice of Deep Cycle AGM Batteries | excellent performance in below freezing temperatures or Long-life lithium iron phosphate battery.
8. 27'8" T6 powder coated enclosure and aluminum pole - 170 MPH wind-rating
9. Motion Detector (Optional)



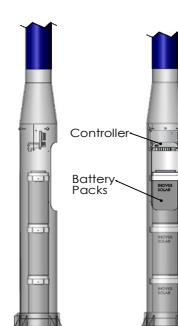
## Panel Specifications

|                  |                                                                                  |
|------------------|----------------------------------------------------------------------------------|
| Solar Assembly   | P300M-SW5                                                                        |
| PV Technology    | CIGS ( Copper Indium Gallium Diselenide)                                         |
| Nameplate Power  | 300W                                                                             |
| Panel Dimensions | 19'4.7" Ft x 13.7in x 0.7In<br>(2598 x 370 x 3.25 mm)                            |
| EPA & Weight     | N/A No added wind loading                                                        |
| Certifications   | UL 1703, IEC 61646, IEC 61730, cUL 1703,<br>IEC 62716,<br>IEC 61701 (Salt Spray) |



## Power Center

|                |                                                            |                                   |
|----------------|------------------------------------------------------------|-----------------------------------|
| Power Center   | [PI-2B50RL-PSMPT25M-MPT15-24V]                             | PI-6B26PA-MPT15-24V               |
| Battery Type   | Lithium Iron Phosphate                                     | AGM Deep Cycle Lead Acid          |
| Rated Capacity | 1.2                                                        | 1.2                               |
| Controller     | MPT15                                                      | MPT15                             |
| System Voltage | 24VDC                                                      | 24VDC                             |
| EPA            | Power Center in Pole                                       | Power Center in Pole              |
| Certifications | CE (battery) UN38.3 (battery)<br>UL1642 & IEC62133 (cells) | UL94:HB and UL94:V0<br>UL MH63446 |



## Luminaire - RFS-35W16LED



The RFS G2 Fixture has outstanding efficiency and output in either 3000K or 4000K. Color temperature as per ANSI/NEMA bin. Easily set the fixture with the standard integrated bubble level and built-in step adjustments. (2700K available on request. Expect longer lead time.)

A quick-release, tool-less entry, single latch, hinged, removable door opens downward for access.

A bird guard protects against birds and similar intruders.

The surface treatment achieves a minimum of 3000 hours for salt spray resistance in testing performed as per ASTM B117 standard.

| LED Module            | Typical Delivered Lumens | Typical Wattage | Approx. HID Equivalent | BUG Rating |
|-----------------------|--------------------------|-----------------|------------------------|------------|
| 4,000K, Type 2 Short  | 4674                     | 38              | 90 - 120W              | B1-U0-G1   |
| 4,000K, Type 2 Medium | 4566                     | 38              | 90 - 120W              | B1-U0-G1   |
| 4,000K, Type 3 Short  | 4643                     | 38              | 90 - 120W              | B1-U0-G1   |
| 4,000K, Type 3 Medium | 4499                     | 38              | 90 - 120W              | B1-U0-G1   |
| 4,000K, Type 4        | 4444                     | 38              | 90 - 120W              | B1-U0-G1   |
| 4,000K, Type 5        | 4711                     | 38              | 90 - 120W              | B1-U0-G1   |
| 3,000K, Type 2 Short  | 4410                     | 38              | 90 - 120W              | B1-U0-G1   |
| 3,000K, Type 2 Medium | 4310                     | 38              | 90 - 120W              | B1-U0-G1   |
| 3,000K, Type 3 Short  | 4381                     | 38              | 90 - 120W              | B1-U0-G1   |
| 3,000K, Type 3 Medium | 4247                     | 38              | 90 - 120W              | B1-U0-G1   |
| 3,000K, Type 4        | 4194                     | 38              | 90 - 120W              | B1-U0-G1   |
| 3,000K, Type 5        | 4445                     | 38              | 90 - 120W              | B1-U0-G1   |

## Product Matrix - Base System

|                      |                                            |                          |                                         |                                  |                                                            |                                                                                |               |                             |                                                      |
|----------------------|--------------------------------------------|--------------------------|-----------------------------------------|----------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------|---------------|-----------------------------|------------------------------------------------------|
| <u>RFS-35W16LED-</u> | -                                          | -                        | <u>M324</u>                             | -                                | <u>-P300M-SW5-</u>                                         | <u>-BK</u>                                                                     | -             |                             |                                                      |
| <u>Luminaire</u>     | <u>Color</u>                               | <u>Type</u>              | <u>Driver</u>                           | <u>Shielding</u>                 | <u>Solar</u>                                               | <u>Pole Integrated Power Center</u>                                            | <u>Finish</u> | <u>Motion</u>               | <u>Arm</u>                                           |
| Road Focus<br>Small  | <u>Temp</u><br>2.7K-<br>2700K <sup>1</sup> | R2M-<br>Type 2<br>Medium | M724-<br>700mA<br>24VDC<br>Dim-<br>ming | HS-House<br>Side<br>Shield       | P300M-SW5-<br>Solar<br>Assembly<br>with 300W<br>CIGS Panel | <u>[PI-2B50RL-PSMPT25M-<br/>MPT15-24V]-</u><br>1.2 Kwh LFP Battery<br>Capacity | BK-<br>Black  | MD5-<br>Motion<br>Detector  | 1.5T-1.5'<br>Straight<br>Tenon<br>Arm                |
|                      | 3K-<br>3000K                               | R2S-<br>Type 2<br>Short  |                                         | NA-No<br>House<br>Side<br>Shield |                                                            | <u>[PI-6B26PA-MPT15-24V]-</u><br>1.2 Kwh AGM Battery<br>Capacity               |               | NA-No<br>Motion<br>Detector | 4T-<br>4' Mast<br>Arm-<br>1.5'Rise<br>Tenon<br>Mount |
|                      | 4K-<br>4000K                               | R3M-<br>Type 3<br>Medium |                                         |                                  |                                                            |                                                                                |               |                             |                                                      |
|                      |                                            | R3S-<br>Type 3<br>Short  |                                         |                                  |                                                            |                                                                                |               |                             |                                                      |
|                      |                                            | 4-Type 4                 |                                         |                                  |                                                            |                                                                                |               |                             |                                                      |
|                      |                                            | 5-Type 5                 |                                         |                                  |                                                            |                                                                                |               |                             |                                                      |



