

# SC315

## RECTANGULAR RAPID FLASHING BEACON



carmanah®  
Traffic

MUTCD-compliant, pedestrian-activated warning beacon for uncontrolled marked crosswalks

- Improve pedestrian safety by increasing driver yield rates
- Passive activation: microwave-based sensor detects pedestrian
- Audible push button station
- Solar power performance even in partially shaded applications
- Solar and AC-powered models wirelessly communicate and can be used together in the same application
- Meets and exceeds MUTCD requirements, including IA-21

RRFBs have been found to provide vehicle yielding rates between 72 and 96 percent for crosswalk applications, including 4 lane roadways with average daily traffic (ADT) exceeding 12,000\*.

### Superior Design and Technology

The SC315 is a cabinet-based system with a separate, high-power solar panel. This design enables the SC315 to work with audible push button stations, passive activation sensors, and remote monitoring, as well as operate at higher intensities and increased activations in challenging environments. MUTCD interim approval IA-21 flash pattern and multiple configurations enable the SC315 to handle all crosswalk applications.

### Easy Installation

All components, including the battery or AC power supply, Energy Management System (EMS) and optional audible push button controller are housed in a compact, lockable, purpose-built enclosure. It also incorporates a wire routing and termination system, and all components are wired at the factory for an efficient installation.

### Advanced User-Interface

The SC315 comes with an on-board user interface for quick configuration and status monitoring. It allows for simple in-the-field adjustment of flash pattern, duration, intensity, ambient auto adjust, night dimming, and many more. Settings are automatically sent wirelessly to all units in the system.

### Compatibility

Compatible with Carmanah RRFBs and the R820-E, R820-F, and R820-G circular beacons. Interchange solar and AC power models within the same application.

### Trusted

With thousands of installations, Carmanah's beacons are the benchmark in traffic applications and other transportation applications worldwide.



**WE SIMPLIFY PLANNING.**

Contact us to get your  
Energy Balance Report and  
purchase specifications.



1.844.412.8395



traffic@carmanah.com



carmanahtraffic.com

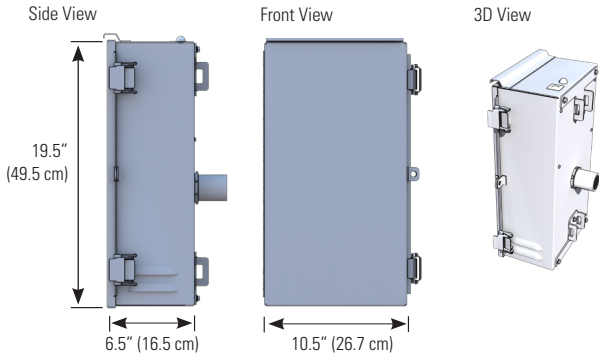
\* U.S. Department of Transportation Federal Highways Administration, Publication No. FHWA-HRT-10-043 - "Effects of Yellow Rectangular Rapid-Flashing Beacons on Yielding at Multilane Uncontrolled Crosswalks"

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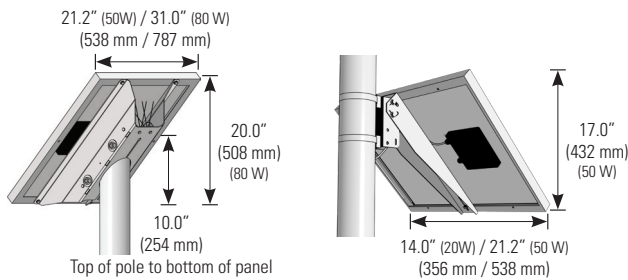
### CABINET DIMENSIONS



### SOLAR PANEL MOUNTING

4.5" Diameter Round Top of Pole Mount  
(50 W and 80 W panels)

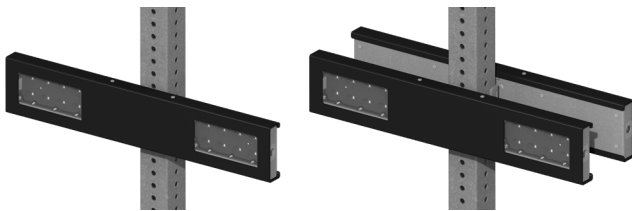
Side of Pole Mount  
(20 W, 50 W, and 80 W panels)



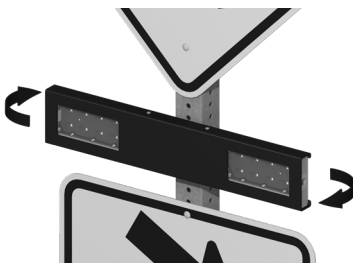
### LIGHT BAR CONFIGURATION

Uni-directional Configuration

Bi-directional Configuration



### IN-THE-FIELD AIMING



Rotate the light bar towards the incoming vehicle lane, independent of the wire hole location.

	Adjustable system settings with auto-scrolling LED display on our latest EMS
	<b>System test, status, and fault detection:</b> battery, solar, button, beacon, radio, day/night
	<b>Flash patterns:</b> RFB1 (WW+S), RFB2 (WSDOT), 0.5 sec. alternating (MUTCD), 0.5 sec. unison (MUTCD), 0.1 sec. unison, 0.25 sec. unison, 0.1 sec. x3 quick flashes unison, 0.1 sec. x3 quick flashes alternating
	<b>Input:</b> momentary for push button activation, normally open switch, normally closed switch
	<b>Flash duration:</b> 5 sec. to 1 hr.
On-Board User Interface (OBUI)	<b>Intensity setting:</b> 20 to 1400 mA for multiple RFBs, circular beacons, or LED enhanced signs
	<b>Nighttime dimming:</b> 10 to 100% of daytime intensity
	<b>Ambient Auto Adjust:</b> increases intensity during bright daytime
	<b>Automatic Light Control:</b> reduces intensity if the battery is extremely low
	<b>Temperature correction:</b> yellow or red beacons
	<b>Calendar:</b> internal time clock function
	<b>Radio settings:</b> enable/disable, selectable channel from 1 to 14
	<b>Output:</b> enabled when beacons flashing daytime and nighttime, or nighttime only
	Activation counts and data reporting via OBUI or optional USB connection
Optical	Purpose-built light bar optics = maximum efficiency and no stray light Exceeds SAE J595 class 1 intensity by 2.5 to 3x when used as recommended Meets SAE J578 chromaticity
	3 in (76 mm) x 7 in (178 mm) clear, UV-rated polycarbonate lens with yellow LEDs
	<b>High-power LEDs:</b> +90% lumen maintenance (L90) based on IES LM-80
	Side-emitting pedestrian confirmation LEDs
	Independent, stainless steel mounting brackets make back-to-back installation simple and enable in-field aiming for maximum effectiveness
	Yellow, black, or green powder coated light bar covers
Connectivity	Encrypted, wireless radio with 2.4 GHz mesh technology
	Wireless update of settings from any unit to all systems on the same radio channel
	User-selectable multiple channels to group different beacons and ensure a robust wireless signal
	Communicates with all other Gen III radio-enabled systems including our R820-E, -F, and -G circular beacons
	<b>Instantaneous wireless activation:</b> <150 ms
	<b>Wireless range:</b> 1000 ft (305 m)
	Integrated, vandal-proof antenna
Power System	Solar or AC-powered
	<b>AC:</b> 90-264 VAC input, 6-14 AWG Replaceable AC-DC power supply, circuit breaker, terminal block wiring
Energy Collection	20, 50, or 80 W high-efficiency photovoltaic solar panel
	45 deg tilt for optimal energy collection Maximum Power Point Tracking with Temperature Compensation (MPPT-TC) battery charger for optimal energy collection in all solar and battery conditions
Energy Storage	12 V battery system with multiple sizes: 33, 35 Ahr.
	Replaceable, recyclable, sealed, maintenance-free, best-in-class AGM batteries offer the widest temperature range and longest life
	<b>Battery design life:</b> +5 yrs. Tool-less battery change with quick connect terminals and strapping for easy installation
Cabinet Construction	Weatherproof, gasketed enclosure with vents for ambient air transfer (NEMA 3R)
	Lockable, hinged door
	Corrosion-resistant aluminum with stainless steel hardware
	Raw aluminum finish or yellow, black, or green powder coated Prewired to minimize installation time High-efficiency optics and EMS = the most compact, lightweight system
Environmental	-40 to 165° F (-40 to 74° C) system operating temperature
	-40 to 162° F (-40 to 72° C) battery operating temperature
	150 mph (241 kph) wind speed as per AASHTO LTS-6
Activation	<b>Push button:</b> ADA-compliant, piezo-driven with visual LED and two-tone audible confirmation
	<b>Audible push button station:</b> ADA-compliant, piezo-driven with visual LED and customizable voice message confirmation <b>Passive activation:</b> microwave-based sensor detects pedestrian
<b>Warranty</b>	<b>5-year limited warranty</b>



**Specifications subject to local environmental conditions, and may be subject to change.**  
 All Carmanah products are manufactured in facilities that are certified to ISO quality standards.  
 US Patent No 6,573,659, Other patents pending.  
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