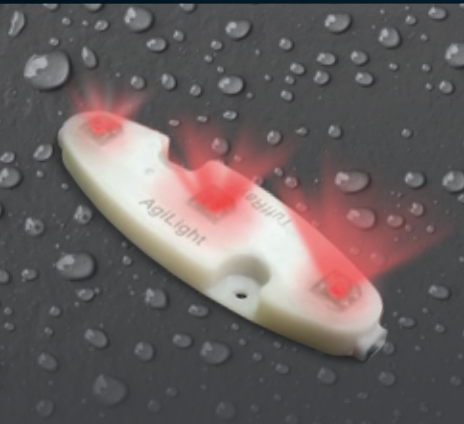


FEATURING

# TUFFRAYZ



## LED Modules



### AT A GLANCE

- Available in Red, Orange, Amber, Green, Blue and AgiLight Sign White
- Three high brightness LEDs per module (2 modules per foot)
- Green, Blue and White TuffRayz utilize our unique DoubleDie LED packages for improved brightness, efficiency and longevity
- $V_1 = 12v$  DC
- Low heat for extended life
- Solder-free connections for maximum strain relief
- Waterproof potting protects all circuitry and connections
- IP66 certified for wet locations
- 3.3"L x 1.0"W x 0.5"H
- Packaged in easy-to-use 25 foot trays
- Operating environment: -40 to 60c
- Storage temperature: -40 to 90C
- 120° beam angle

Wind, rain, ice and humidity are no match for AgiLight's new TuffRayz LED modules. Durable and extremely weather-resistant, TuffRayz provide an affordable, energy-efficient channel letter lighting solution for indoor and outdoor signage. Make sure your signs shine through any forecast.

### ULTRA DURABLE



Don't lose one more channel letter or sign to the elements. Heavy-duty and essentially weather-proof, TuffRayz are extremely durable and hold-up in the most extreme weather conditions imaginable, including heat, cold and moisture. The module features a protective molded body and fully potted protection of the circuitry and connections for wet location use.

### ULTRA SIMPLE

Unlike traditional rectangular modules, TuffRayz streamlined pod-like design allows for quick and easy installation. The oval-shaped modules smoothly flow over work surfaces and into place in letters and signs. TuffRayz are also color coded for quick and easy identification of the LED's color. Installation is a breeze with a choice of mounting flanges for mechanical fastening or 3M™ VHB adhesive tape.

### ULTRA VIVID

Available in the industry's most desired colors, TuffRayz modules come in a red, orange, amber, green, blue, and a very clean, bright white called "AgiLight Sign White." These are also the brightest entry-level LED modules available.

### ULTRA EFFICIENT

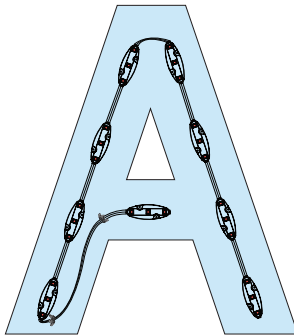
In addition to delivering up to 30 percent greater brightness than other standard LED channel letter solutions—and being one of the best values around—TuffRayz provides longer runs than most competitive products (up to 60 linear feet per 60-watt power supply). TuffRayz run on 12V DC power and are fully compatible with all AgiLight LED products and power supplies.



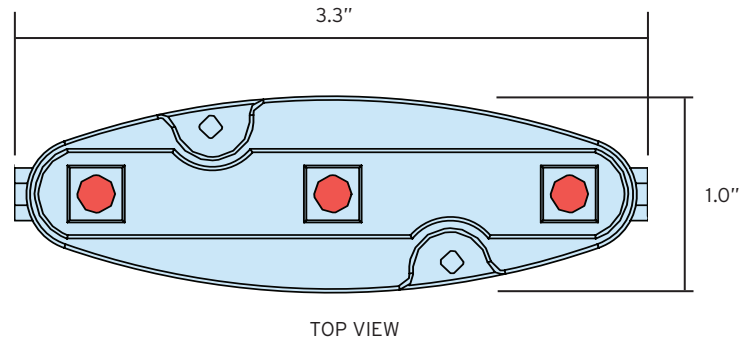
# TUFFRAYZ SPECIFICATIONS



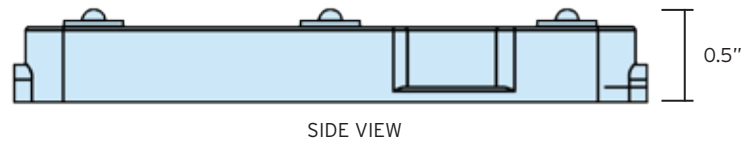
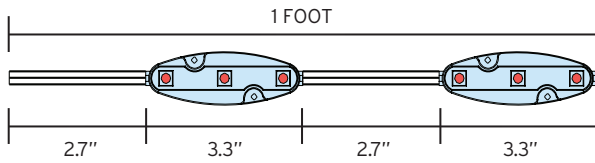
Typical Channel Letter Installation: 24" Letter Shown



TuffRayz: Actual Size



TuffRayz: Module Spacing



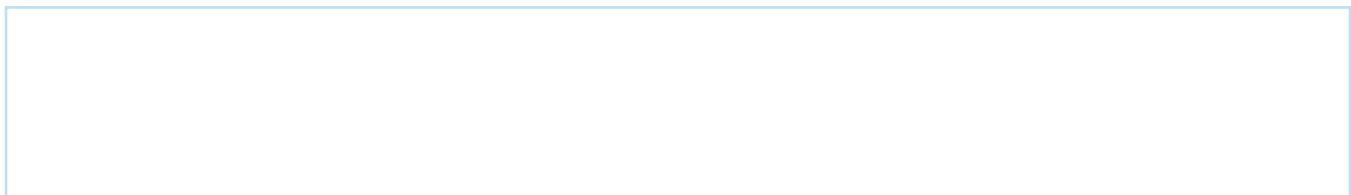
## Power Supply Loading Chart

Power Supply	TuffRayz Red, Orange, Amber Maximum Load	TuffRayz Green, Blue, White Maximum Load
20w	40 modules (20 feet)	32 modules (16 feet)
60w	120 modules (60 feet)	100 modules (50 feet)

## Technical Specifications

Color	Wavelength/CCT	Lumens per Foot	Energy Consumption	Current per Module	Warranty
Red	625nm	29	1.0 watts per foot	0.04A	5 years
Orange	608nm	34	1.0 watts per foot	0.04A	5 years
Amber	590nm	29	1.0 watts per foot	0.04A	5 years
Green	530nm	43	1.2 watts per foot	0.05A	4 years
Blue	465nm	20	1.2 watts per foot	0.05A	4 years
White	6800K	52	1.2 watts per foot	0.05A	4 years

## Available From



For more information, please contact: 866.482.0203 or email us at [TuffRayz@AgiLight.com](mailto:TuffRayz@AgiLight.com)