

# LED Colorlights Wayside

8 inch (200 mm) - 10V DC  
**-96 Series**



## Outstanding Reliability

- Improved contact resistance immunity
- Compatible with most controllers with light-out-detection circuits
- Self-contained design provides protection against moisture and dust
- Backed by a 48 month limited warranty
- Over 210,000 wayside signals sold worldwide

## Excellent Appearance & Visibility

- Robust LED system design enables high luminous intensity over long product life
- Efficient optical system delivers uniform color across both wide- and narrow-beam signals
- Sun Phantom reducing features have been incorporated in our design<sup>3</sup>
- Easy to install and align

## Meets Rigorous Certification & Testing Standards

- Meets selected AREMA recommended practices, as detailed in the Design Compliance Table
- All lamps undergo comprehensive testing in the manufacturing plant
- Meets key failure rate criteria as per EN 50129\*

\* Detailed rating table with duration and operating conditions available upon request.

**RM4 - Wayside**



imagination at work

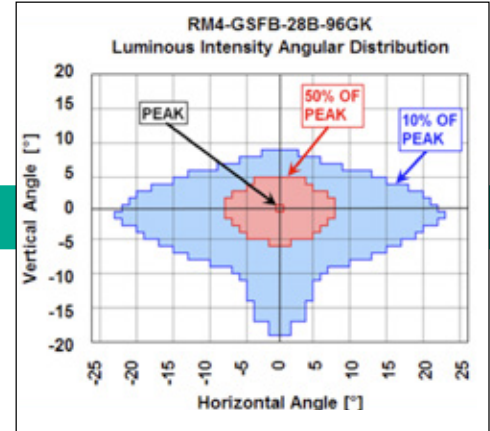
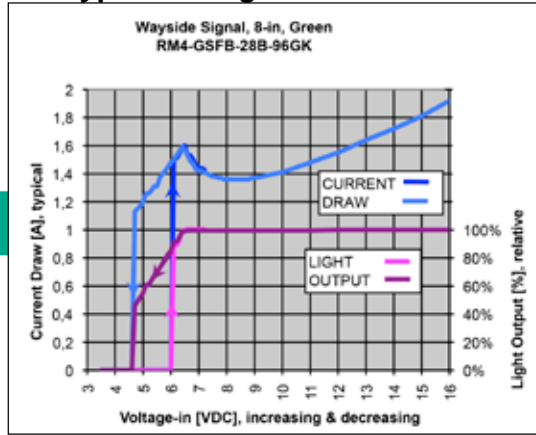
# Mid-Range: Visibility to 2000 ft (600 m)

## Typical Voltage-Current Curves (Measured at 20°C)

## Typical Light Distribution

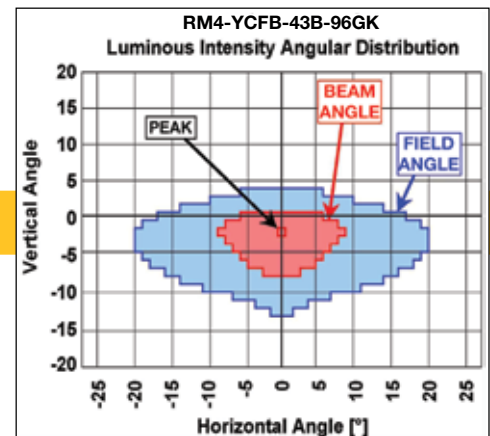
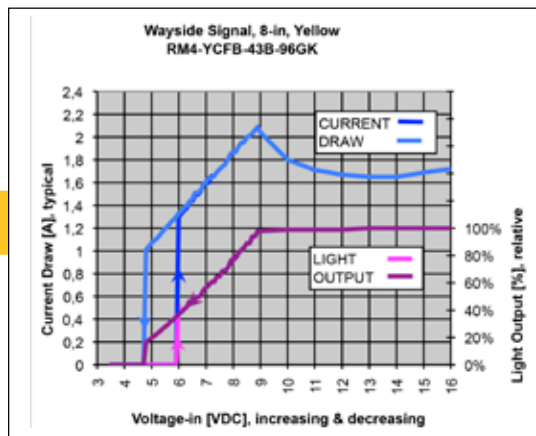
### Green Aspect

RM4-GSFB-28B-96GK



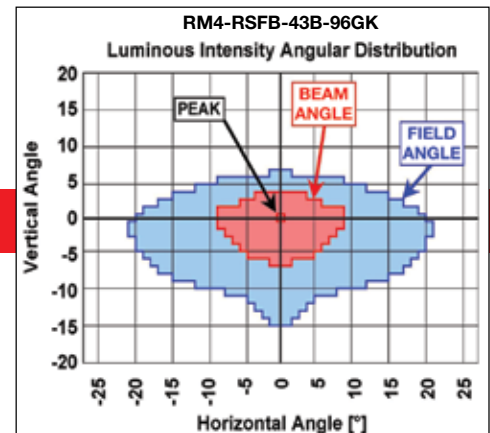
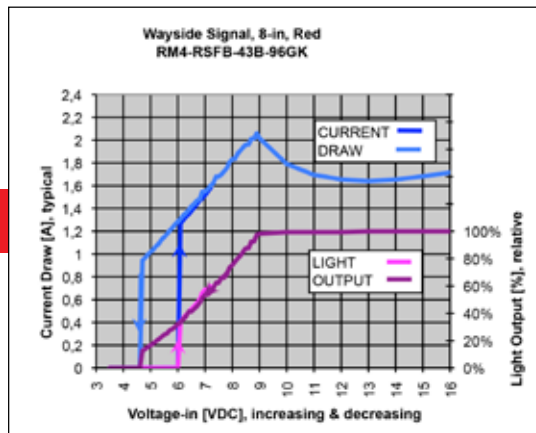
### Yellow Aspect

RM4-YCFB-43B-96GK



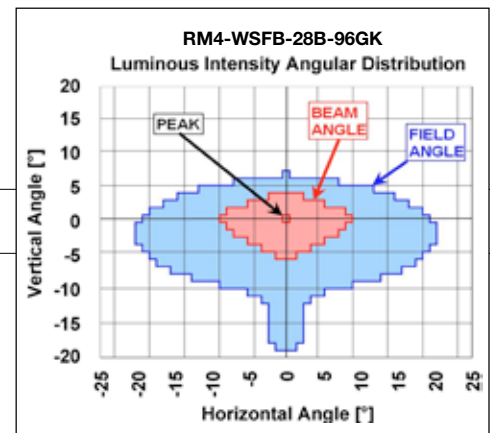
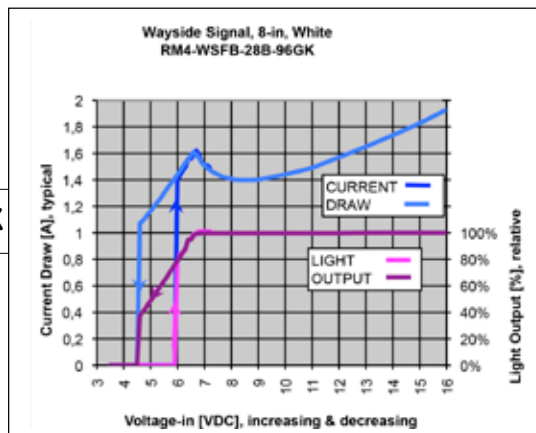
### Red Aspect

RM4-RSFB-43B-96GK



### White Aspect

RM4-WSFB-28B-96GK



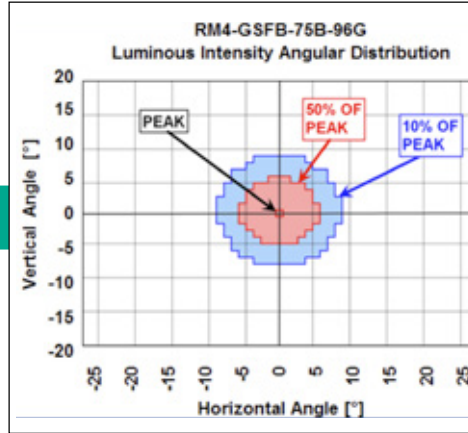
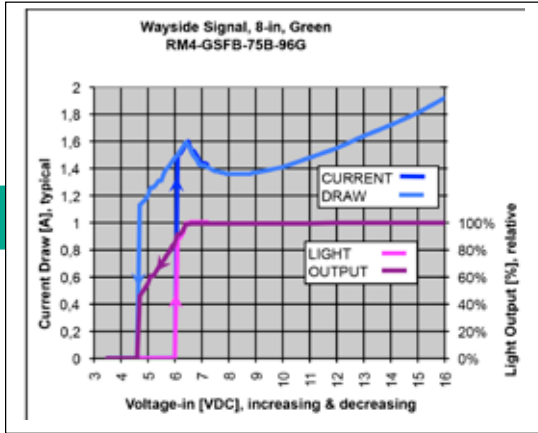
#### Definitions:

- Peak: Maximum Luminous Intensity
- Beam Angle: 50% of Peak Intensity
- Field Angle: 10% of Peak Intensity

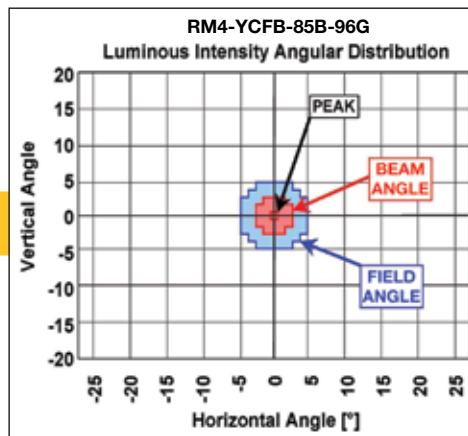
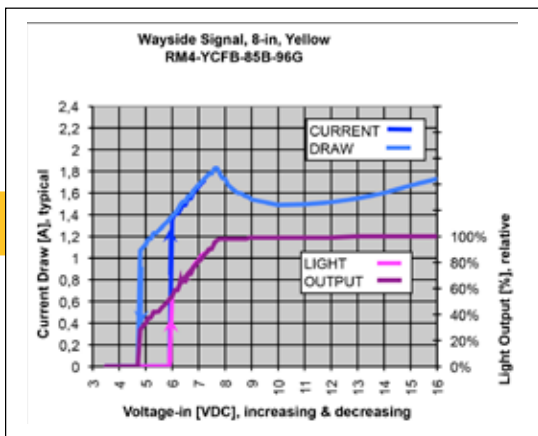
# Long Range: Visibility to 5000 ft (1500 m)

## Typical Voltage-Current Curves (Measured at 20°C)

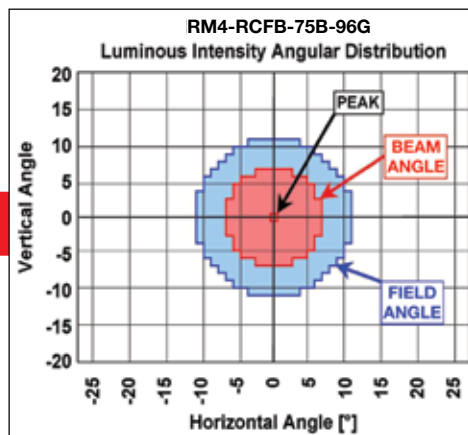
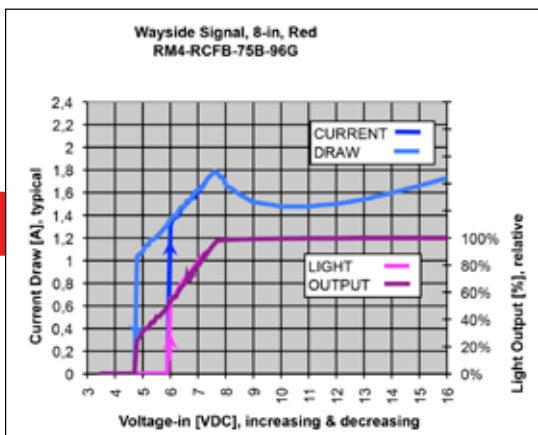
## Typical Light Distribution



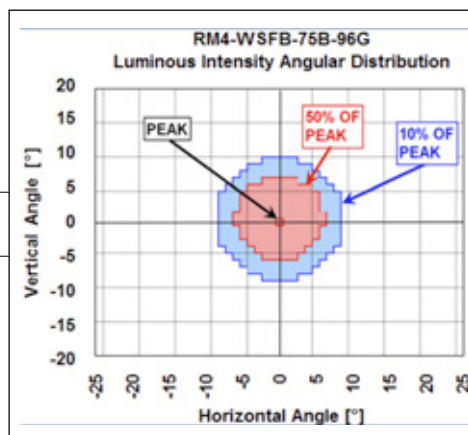
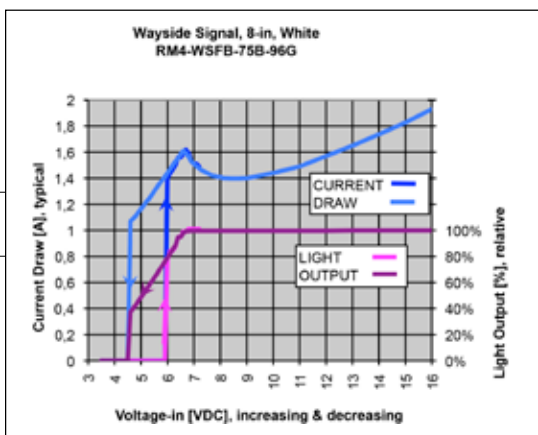
**Green Aspect**  
RM4-GSFB-75B-96G



**Yellow Aspect**  
RM4-YCFB-85B-96G



**Red Aspect**  
RM4-RCFB-75B-96G



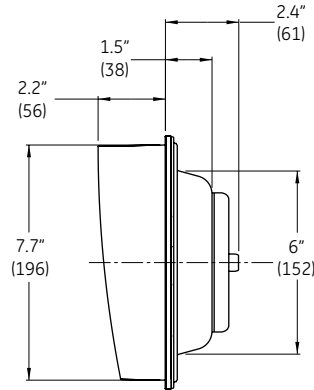
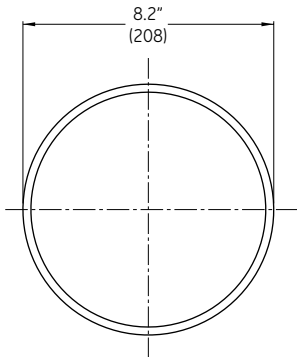
**White Aspect**  
RM4-WSFB-75B-96G

# LED Colorlights - Wayside

• 8 inch (200 mm) - 10V DC • 96 Series

## Mechanical Outline

Dimensions in inches. (mm) indicates metric equivalent



## Design Compliance

Characteristic	Compliance
Impact Resistance of Front Shell	IR3
Mechanical Vibration & Shock	AREMA 11.5.1.D.4/D.5. Class B
Water/Dust Ingress Protection (in typical Rail Housing)	EN 60529 IP65
Dielectric Strength	AREMA 11.5.1.D.7, Class B
Electrical Surge Protection	EN61000-4-5, Class 3, AREMA 11.3.3
Electromagnetic Compatibility (EMC)	FCC Part 15, Subpart B

## Operating Specifications

Parameter	Rating
Operating Temperature Range	-40 to 70°C (-40 to 158°F)
Nominal Operating Voltage	10V DC
Operating Voltage Range	8 - 16V DC
Voltage Turn-Off	3.5V DC
Turn-On/Turn-Off Time	< 75ms
Typical Clamping Voltage (AREMA 11.3.3.E)	42V
Maximum Allowable Surge Voltage and Energy Handling Capability (AREMA 11.3.3.E)	65V DC & 15J for 2ms

## Product Information

Model Number	Aspect Color	Nominal Watts <sup>1</sup>	Number of LEDs
<b>Short and Mid-Range: Visibility to 2000 ft (600 m)<sup>2</sup></b>			
● RM4-GSFB-28B-96GK	Green	15W	90
● RM4-YCFB-43B-96GK	Yellow	18W	132
● RM4-RSFB-43B-96GK	Red	18W	132
○ RM4-WSFB-28B-96GK	White	15W	90
<b>Long Range: Visibility to 5000 ft (1500 m)<sup>2</sup></b>			
● RM4-GSFB-75B-96G	Green	15W	90
● RM4-YCFB-85B-96G	Yellow	15W	88
● RM4-RCFB-75B-96G	Red	15W	88
○ RM4-WSFB-75B-96G	White	15W	90

Notes:

<sup>1</sup> This is a minimum stabilized value at T = 25°C.

<sup>2</sup> For VI Curves and Isocandela graphics, please refer to Pages 3 and 4.

<sup>3</sup> Signal performance when exposed to external light (ex. sun, head lamp). is dependant on each application field testing is recommended.

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