# VIPER-R SERIES-LED

S P E C I F I C A T I O N S

### HOUSING

Heavy spun aluminum housing with four (4) cast, low copper aluminum (A356 alloy,<0.2% copper) arms welded to a central mounting hub. Mounting hub fits 2 7/8" ø x 3" tenon and is secured to a pole tenon by 8 stainless steel hex socket recessed cap screws. Optical compartment is accessed through the hinged top. Minimum wall thickness is .188". All exposed hardware is stainless steel. Internal protected hardware is electro-zinc plated.

### ✓LED<sup>®</sup> OPTICAL MODULE

Low copper A356 alloy (<.2% copper) cast aluminum housing. Integrated clear tempered glass lens sealed with a continuous silicone gasket protects emitters (LED's) and emitter Reflector-Prism optics, and seals the module from water intrusion and environmental contaminants. Module is sealed to meet an IP67 rating. Each emitter is optically controlled by a Reflector-Prism injection molded from H12 acrylic (3 types per module; one from 0° - 50°; one from 50° - 65°; one from 65° -72°). Each Reflector-Prism has indexing pins for aiming and is secured to an optical plate made of matte black anodized aluminum. The optical plate locates every Reflector-Prism over an emitter. Reflector-Prisms are secured to the optical plate with a UV curing adhesive. The Reflector-Prisms are arrayed to produce IES Type II, III, IV, and V-SQ distributions. The entire Optical Module is field rotatable in 90° increments. Both module and drivers are factory wired using water resistant, insulated cord. Lens, module and drivers are field replaceable.

### LED DRIVER

Drivers are UL and cUL recognized mounted on a single plate and factory prewired with quick-disconnect plugs. Constant current driver is electronic and has a power factor of >0.90 and a minimum operating temperature of -40°F. Drivers accept an input of 120-277V, 50/60Hz or 347-480V, 50/60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

#### AMBER LED's

PCA (Phosphor Converted Amber) LED's utilize phosphors to create color output similar to LPS lamps and have a slight output in the blue spectral bandwidth.TRA (True Amber) LED's utilize material that emits light in the amber spectral bandwidth only without the use of phosphors.

#### LED EMITTERS

High output LED's are utilized with drive currents ranging from 350mA to 1050mA. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

#### FINISH

Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140° F. Four step iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability. Texture finish is standard.

#### FIXTURE TYPE:





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## LED/ELECTRICAL GUIDE

LED COUNT	SOURCE TYPE	SOURCE	initial Lumens - 4000k	initial Lumens - 3000k	initial Lumens - 5000k	l70 greater Than (hr)	Starting Temp.	SYSTEM WATTS	VOLTS	Max Input Amps
48	LED	48 <b>/LED</b> ° Optical Module - 350mA	4,812 - 5,401	4,571 - 5,130	5,052 - 5,671	60000+	-20°F	54	120 277 347	0.45 0.20 0.16
48	LED	48 <b>/LED</b> ° Optical Module - 525mA	6,662 - 7,440	6,329 - 7,068	6,995 - 7,812	60,000+	-20°F	78	120 277 347	0.65 0.29 0.23
48	LED	48 <b>/LED</b> ° Optical Module - 700mA	8,339 - 9,315	7,922 - 8,849	8,756 - 9,781	60,000+	-20°F	104	120 277 347	0.87 0.38 0.30
64	LED	64 <b>/ LED</b> ° Optical Module - 350mA	6,186 - 6,704	5,877 - 6,369	6,495 - 7,039	60,000+	-20°F	68	120 277 347	0.57 0.25 0.20
64	LED	64 <b>/ LED</b> ° Optical Module - 525mA	8,425 - 9,130	8,004 - 8,674	8,846 - 9,587	60,000+	-20°F	100	120 277 347	0.84 0.37 0.29
64	LED	64 <b>/ LED</b> ° Optical Module - 700mA	10,548 – 11,431	10,021 - 10,859	11,075 - 12,003	60,000+	-20°F	140	120 277 347	1.17 0.51 0.41
80	LED	80 <b>/LED</b> ° Optical Module - 350mA	7,732 - 8,830	7,345 - 7,961	8,119 – 8,799	60000+	-20°F	87	120 277 347	0.73 0.35 0.26
80	LED	80 <b>/LED</b> ° Optical Module - 525mA	10,531 – 11,413	10,004 - 10,842	11,058 - 11,984	60,000+	-20°F	130	120 277 347	1.09 0.47 0.38
100	LED	120 <b>/LED</b> ° Optical Module - 350mA	8,811- 9,550	8,370 - 9,073	9,252 – 10,028	60,000+	-20°F	109	120 277 347	0.91 0.40 0.32
100	LED	120 <b>1/LED°</b> Optical Module - 525mA	12,260 - 13,287	11,647 - 12,623	12,873 - 13,951	60,000+	-20°F	160	120 277 347	1.34 0.58 0.47

NOTES:

1. Max Input Amps is the highest of starting, operating, or open circuit currents

2. Lumen values for LED Modules vary according to the distribution type

3. System Watts includes the source watts and all driver components.

4. Fuse value should be sufficient to protect all wiring components. For electronic driver and LED component protection, use 10KV – 20KV surge suppressors.

5. L70(10K) - TM-21 6x rule applied

WARNING: All fixtures must be installed in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.



