

Lighting for Streets and Roadways

ActiveLED[®]
Energy Efficient Lighting and Controls
Made in USA.

- **Drastically reduced lighting energy cost**
- **Virtually no maintenance for 10 years**
- **Unsurpassed control capabilities**
- **More even light output**



Sun City, Texas



Lower Brule, South Dakota

ActiveLED[®] Lighting provides outstanding illumination for any aspect of roadway, neighborhood street, parking and perimeter lighting; improving safety to drivers and pedestrians, reducing maintenance for municipalities and roadway owners.

The investment in **ActiveLED**[®] is further protected by the 10 year no-light-loss guarantee.

ActiveLED Modular Roadway, Street and Path Lighting technology is truly among the world's leading technologies with unsurpassed light output per watt and uniform distribution, minimum glare and a 10 year "no light loss" guarantee.

White daylight at 5000K makes the approach safer and more visible from a longer distance while colors appear more vibrant compared to dingy orange HPS lighting.

The use of ActiveLED street and roadway lighting reduces maintenance cost significantly as it extends re-lamping cycle to 10 years or more.

Built-in daylight sensors, programmable light levels and timer options allow further energy-savings in appropriate applications.



Standard distribution patterns

Type I - for lighting sidewalks and narrow walkways, usually placed at the centre of the pathway and provides a lighting distribution that is symmetrical. The width of the light thrown is approximately equal to the mounting height of the fixture.

Type II - for wider paths, neighborhood streets, jogging paths and driveways, usually placed on the edge of the area. It lights up an area 1.5 times wider than the mounting height of the fixture.

Type III - for roadways, general parking and other areas where large quantity of lighting is needed. Also placed at the edge of the area and light is projected on to the area. It lights up an area approximately 2.75 times wider than the mounting height.

Type IV - for lighting fixtures mounted on walls, best for illuminating the perimeter of parking areas and buildings. Also known as Forward Throw or Asymmetric. It lights up an area approximately 2.75 times wider than the mounting height.

Type V - for large commercial parking areas or any area where evenly distributed light is required. Type V has a characteristic square or circular distribution with equal intensity at all angles.



ActiveLED roadway and neighborhood street lighting fixtures come in six basic sizes which relate to lumen output and wattage:

Total lumen output	ActiveLED Type	Watt	Weight	ANSI136.31
3,000 lm to 3,600 lm	SL30	30W	11 lbs	3G
3,800 lm to 4,300 lm	SL40	40W	13 lbs	3G
4,900 lm to 5,700 lm	SL50	52W	16 lbs	3G
6,750 lm to 7,800 lm	SL75	75W	21 lbs	3G
10,500 lm to 11,000 lm	SL100	102W	23 lbs	3G
13,500 lm to 15,000 lm	SL150-2	150W	39 lbs	3G

Setting a higher Standard

Ringdale **ActiveLED** Roadway Lighting has been designed to meet the Roadway Illumination Standards of Departments of Transport as well as Municipalities for neighborhood streets and major roadways.

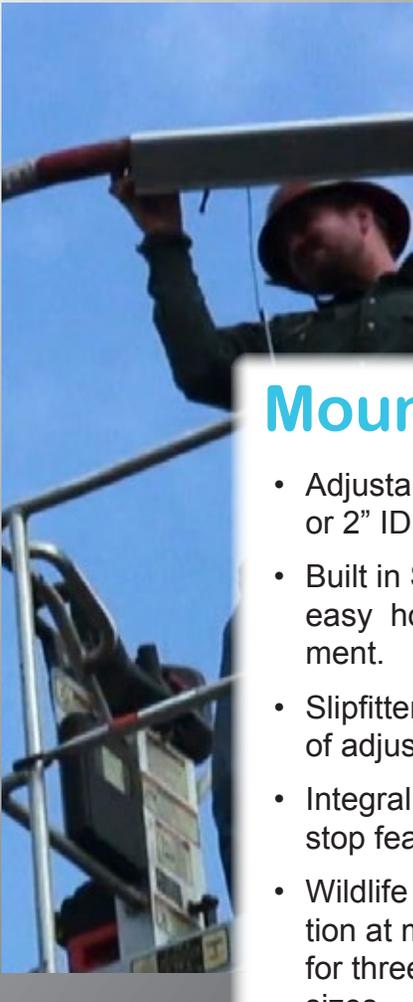
ActiveLED technology draws on Ringdale patented optical, heat sink, LED fail-safe and power supply technology to provide the technologically most sophisticated, highest light output per watt throughout the range of 100V-AC to 277V-AC and 300 V-AC to 480V-AC as well as being the most durable light fixture in the industry with a **10 year “no light loss” guarantee**.

ActiveLED has the highest guaranteed operating temperature in the industry of -55°C to +55°C and does not limit its warranty if the fixtures are constantly or often operated at the upper or lower end of its range.

Internal protection mechanisms (fixture may dim or temporarily turn off) of Ringdale’s patent pending power supply guarantee the integrity of the electronics and the LED modules up to 65°C ambient temperature.

Built in controls to adapt to NEMA 3-prong devices, 0 to 10V dimming as well as Ringdale’s EDSaP™ control technology for motion and traffic detection, daylight sensing and timed operation.

All **ActiveLED**® roadway fixtures are also available for 48V-DC operation for solar and ‘solar-assist’ operation.



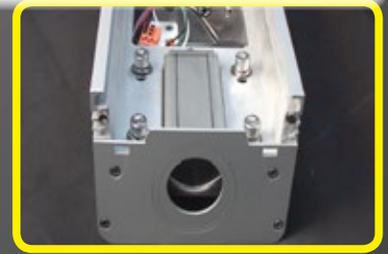
Mounting

- Adjustable for 1.25", 1.5" or 2" ID mounting pipe.
- Built in Spirit Level for easy horizontal adjustment.
- Slipfitter with +/- 5 degree of adjustment for leveling.
- Integral mounting pipe stop feature.
- Wildlife intrusion protection at mounting pipe entry for three standard pipe sizes.

Safety

Four bolt mounting and a UL Labs verified ANSI 136.31 3G rating allows safe operation on bridges with high vibration.

Its wind load is lower and up to half that of its peers for most fixtures of comparable light output.



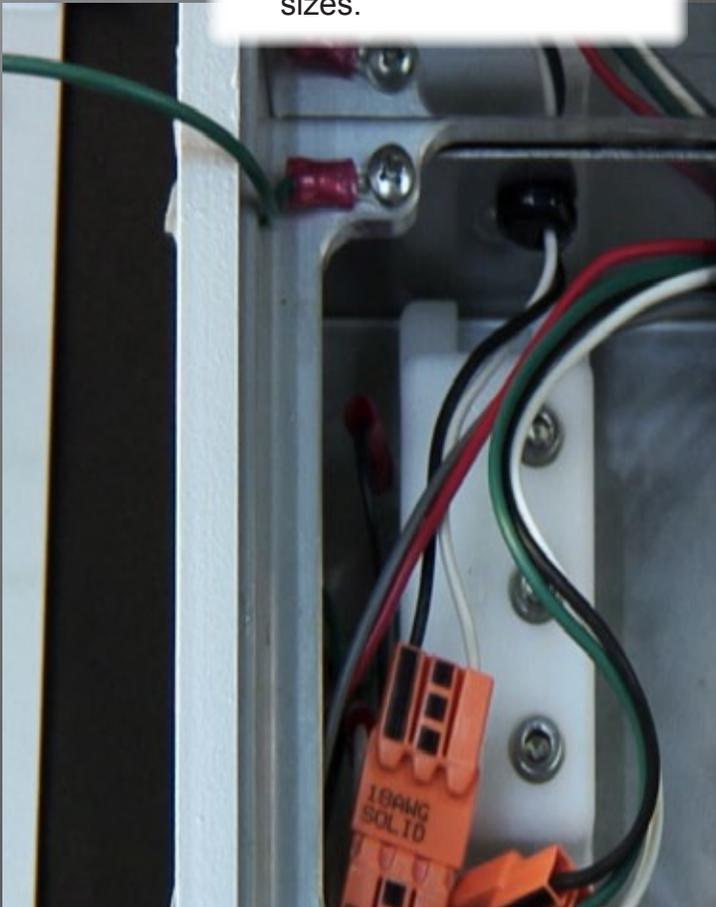
Lineman friendly

We have listened to numerous users and provided a Spirit Level in the fixture that is visible and usable when the electrical compartment is open or closed.

The compartment can be opened easily without tools with lineman's gloves.

All our Arm mounted fixtures have a terminal block that can take from 20 awg to 8 awg wire with sufficient space to loop three #8 wires.

All fixtures have a lineman accessible tool less fuse holder that can protect the fixture from sustained overvoltage or effects of a lightning strike.



Elegance

The elegant extruded design is the lightest fixture of its kind i.e. compared to current competing LED streetlight fixtures that are providing the same light output.

Depending on the Output Power required ActiveLED has five sizes of fixtures, 17in, 20in, 24in, 30in and 34in as well as a dual head arrangement that is ANSI 136.31 3G rated and tested.

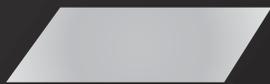
Style

ActiveLED provides the largest range of correlated color temperature (CCT) with tolerances to ANSI C78.377-2008 for efficiency or ambience of;

2700K, 3000K, 3500K, 4000K and 5000K.

Our recommended standard is a CCT of 5000K with a CRI of ~70

Color Finishes



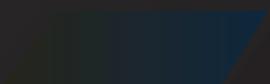
Silver



Bronze



White



Charcoal

Color Accuracy

Color Rendering Index (CRI)

CRI

5000K	~70
4000K	~75
3500K	~79
3000K	~80
2700K	~83

Light Color

Correlated Color Temperature (CCT)

5100 (Daylight)



Tested to LM-79 standard in accordance with IESNA LM79:2008, Approved Method for the Electrical and Photometric Testing of Solid State Lighting.

Finish

- Corrosion resistant polyester powder coated, thickness minimum 2.0 mil
- 1000 hr. Salt Spray resistant tested to ASTM B117
- Standard colors: **White, Charcoal, Silver and Bronze**
- RAL & other custom colors available

Electrical

- Terminal Block accepts 8 awg to 20 awg
- 100-277VAC 50/60Hz or 300-480VAC 50/60Hz (specify with order)
- Power Factor: >94% typical
- Total Harmonic Distortion (THD): <20% typical 10% at full load (any Ringdale LED Driver)
- Audible Sound Rating: Class A
- Integral surge protection:
 - For 120-277VAC per IEEE/ANSI C62.41.-1991, 6kV/3kA Location Category B3
- Quick Disconnect Optional Surge Protection per IEEE/ANSI C62.41.2-2002
 - Rating B/C1- 6kV/3kA Location Category Bx / C1 - Low
 - Rating C2 - 10kV/5kA Location Category C2 - Medium
- EMI: Conforms to FCC Part 15.19 Subpart B Class A
- Ringdale Power Supply (LED Driver) cUL and UL listed E322932
- UL1598 In-Situ tested by Caliper Laboratory

Ratings

IP65 rated optical enclosure per ANSI C136.25-2009

Warranty

- We only use US Made Aluminum Extrusions as well as US Made Stainless Steel, LEDs that are designed and packaged to our specification with consistent performance and color temperature, this allow Ringdale to provide a 10 year or 90,000 hour L90% 'no light loss' guarantee. This guarantee is valid, no matter if you have ActiveLED light fixtures turned on all the time or if the fixtures are frequently being cycled, when operated within their operating envelope.
- Also the Power Supply carries a 10 year warranty if used with Ringdale Surge Protection device, providing a 10kV / 20kA common (line to ground) and differential (line to line) mode surge protection.



A size for any application

Modular design

Field replaceable optics and a three prong NEMA connector are the main features of this design, to meet roadway specifications written for products with planned obsolescence.

However, Ringdale **ActiveLED** roadway products do not fail within first 10 years at which point the fixture can be cleaned or refurbished with more efficient optical modules or LED Driver Power Supplies.

Roadway specifications that call for field replaceable parts often call for 3 prong NEMA connector for attachment of daylight sensor or other devices, this is why we add the 3 prong connector automatically to the modular fixture.

Five optical patterns can be selected for street lighting. Each module has a module wattage of 24 LED watts. The six sizes can accommodate the following:

Fixture Size	Number of Modules	Lumen	Watt	LED Watt
17"	1	3000	30	24
20"	1.5	3900	40	32
24"	2	6000	52	48
30"	3	9000	75	72
34"	4	12000	102	96
Dual 30"	6	18000	150	144
Dual 34"	8	24000	204	192

ActiveLED light fixtures operate from 100V to 277V AC, 50 or 60 Hz as well as 300V to 480V AC and/or from a 48V DC supply, making roadway lighting future proof for solar or wind and battery operation.

Roadway, streetlights and parking lot lights can be optionally remotely adjusted and programmed, using a Ringdale wireless link connected to the USB port of a laptop.

ActiveLED extends its 5 year power supply warranty to 10 years if a Ringdale surge suppression device is used with each fixture.

Ringdale provides light-level simulation and layout services for its lighting products as well as specialty lighting design for backlit signs of any shape and size.

The Return on Investment for a neighborhood street or a major roadway is exceptional and likewise the before and after effect;

Evidenced by the Sun City 4 lane roadway in Texas.



ActiveLED light fixtures carry a 10 year “no light loss” guarantee for 90,000 hours of continuous or interrupted operation, that the light output will be at least 90% of the original light output.

We manufacture more than 100 light fixture types, so if you do not see what you are looking for in this brochure, contact us and we would be delighted to help.

ActiveLED[®]
Energy Efficient Lighting and Controls
Made in USA

www.ActiveLED.com

Call us now USA: +1-512-288-9080 UK: +44-1444-870408 Japan: +81-3-5288-5310