

ORDERING INFORMATION

RM LED Roadway LED



- LED system producing 89 lumens per watt for Type II roadway applications
- 6087 lumens replaces 100-150w HPS or 175w Mercury fixtures with more visible and uniform light
- IP67 optical seal protective PMMA acrylic lens sealed to optical module
- Die-cast aluminum castings – two door design is standard allowing independent access to optics or driver
- Traditional cobrahead fixture styling
- Four point LED engine retention for secure fit
- 48,000 hr L90/calculated 100,000+ hr L70 LED life
- Surge protection of 10KA 8/20 μ Sec wave; clamping voltage of 320V and surge rating of 273J
- Universal voltage 100-277V driver – 68 input watts
- 4 bolt slip fitter mounting, adjustable for 1 1/4" - 2" pipe, +/- horizontal adjustment for leveling, 3G vibration design
- EPA .7 – weight 24 lbs./10.91 Kgs.
- -35°C to 40°C ambient operating temperature
- Features exclusive wiHUBB technology – On/Off programmable option

RMCT - 48LU-5K - 020 - 1 - 5 -

| | | | | | |
|--|--|--|--|--|---|
| LENS DOOR RMCT Cut-off top mounted ballast | OPTICAL DISTRIBUTION/GASKETING 020 ² Type II IP67 Optic | CERTIFICATION 1 To UL1598 for use in wet locations | BALLAST DOOR CLOSURE 5 Screw and latch | FUSING FO None F1 120 F2 208 F3 240 F4 277 | FINISH M51 Bronze M53 Gray |
| LED 48LU-5K ¹ 48 LED | | PHOTOCELL RECEPTACLE 2 No PCR 3 ³ With PCR | | | |

A 7" / 178 mm
B 13" / 330 mm
C 29 3/4" / 756 mm

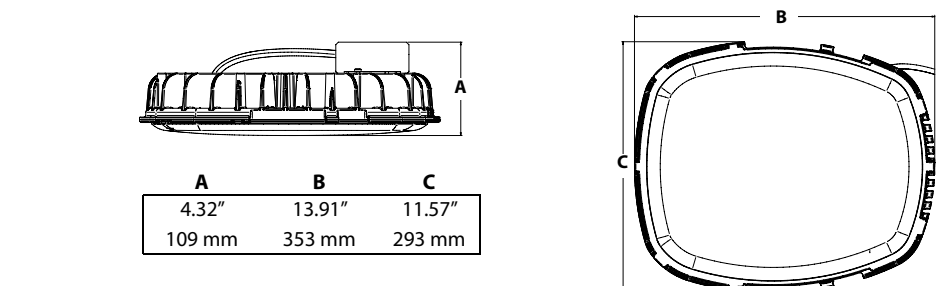
1 4800K CCT
2 B1-U1-G1 rating
3 Required for WIH-OM accessory for on/off wireless control capability (consult factory)

RF LED Retrofit Kit



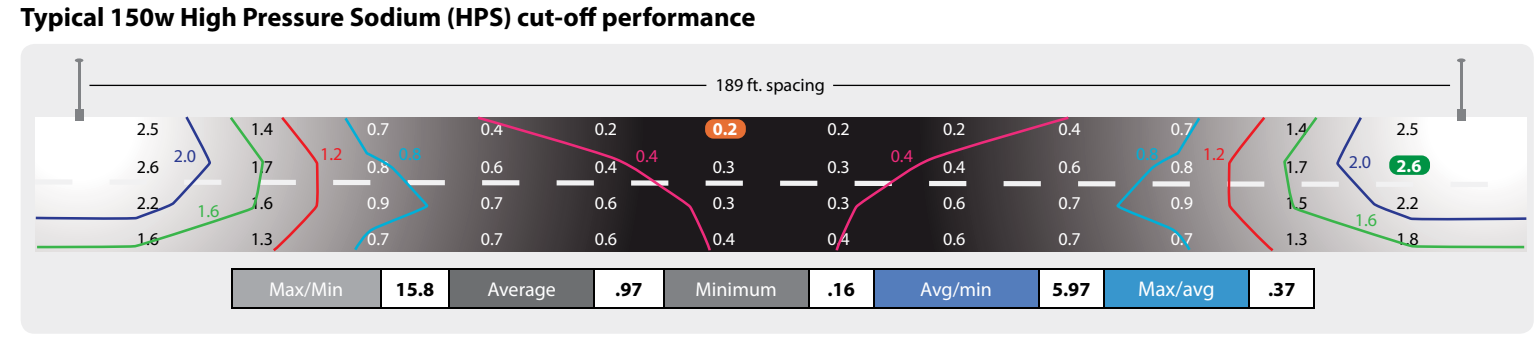
- Compact 68w, 6087 lumen, 100-277V kit with built-in die-cast heat sink and driver, 50/60Hz
- Surge protection of 10KA 8/20 μ Sec wave; clamping voltage of 320V and surge rating of 273J
- Fits Hubbell RM Roadway series and other NEMA compliant 100-175w roadway horizontal fixtures
- 48,000 hr L90/calculated 100,000+ hr L70 LED life
- IP67 ingress protection
- Saves 65% energy compared to 150w HPS fixtures, with four times the life
- Listed to UL1598 for use in wet locations

| CATALOG NUMBER | DESCRIPTION | WEIGHT lbs. (kg) |
|----------------|--|------------------|
| RF 48LU-5K | Type II cut-off retrofit kit for RM Roadway luminaires, with surge protector | 12 (5.5) |



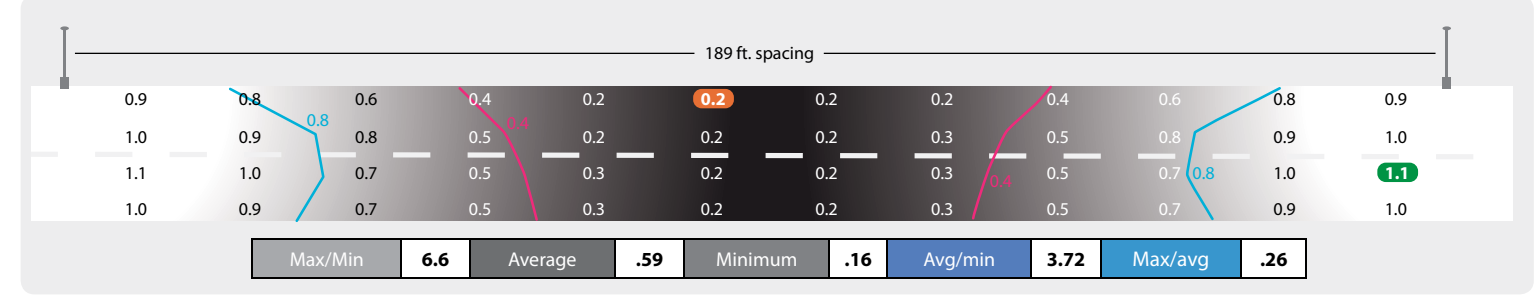
Roadway Lighting Comparison

The Hubbell Outdoor RM LED luminaire meets RP-8 2007 guidelines while improving uniformity for better vision. Comparing the photometric performance in the below examples, hot spots are eliminated reducing maximum light levels while providing recommended illumination with 65% energy savings over a typical 20 year installed life.



Comparisons of RP-8 guidelines of Avg/min and Max/avg illustrate the Hubbell Outdoor Roadway LED luminaire is well within guidelines for (Collector) and (Local) applications. The typical 150w HPS luminaire lacks uniformity performance and fails to meet these guidelines for (Collector) applications in Avg/min at these equal spacings.

Hubbell Outdoor 68w RM LED performance



Roadway Illuminance – RP-8 Guidelines

Illumination guidelines and standards for roadway illumination have several variables and characteristics to consider. Below is a table outlining footcandle readings published by the IESNA for roadway applications.

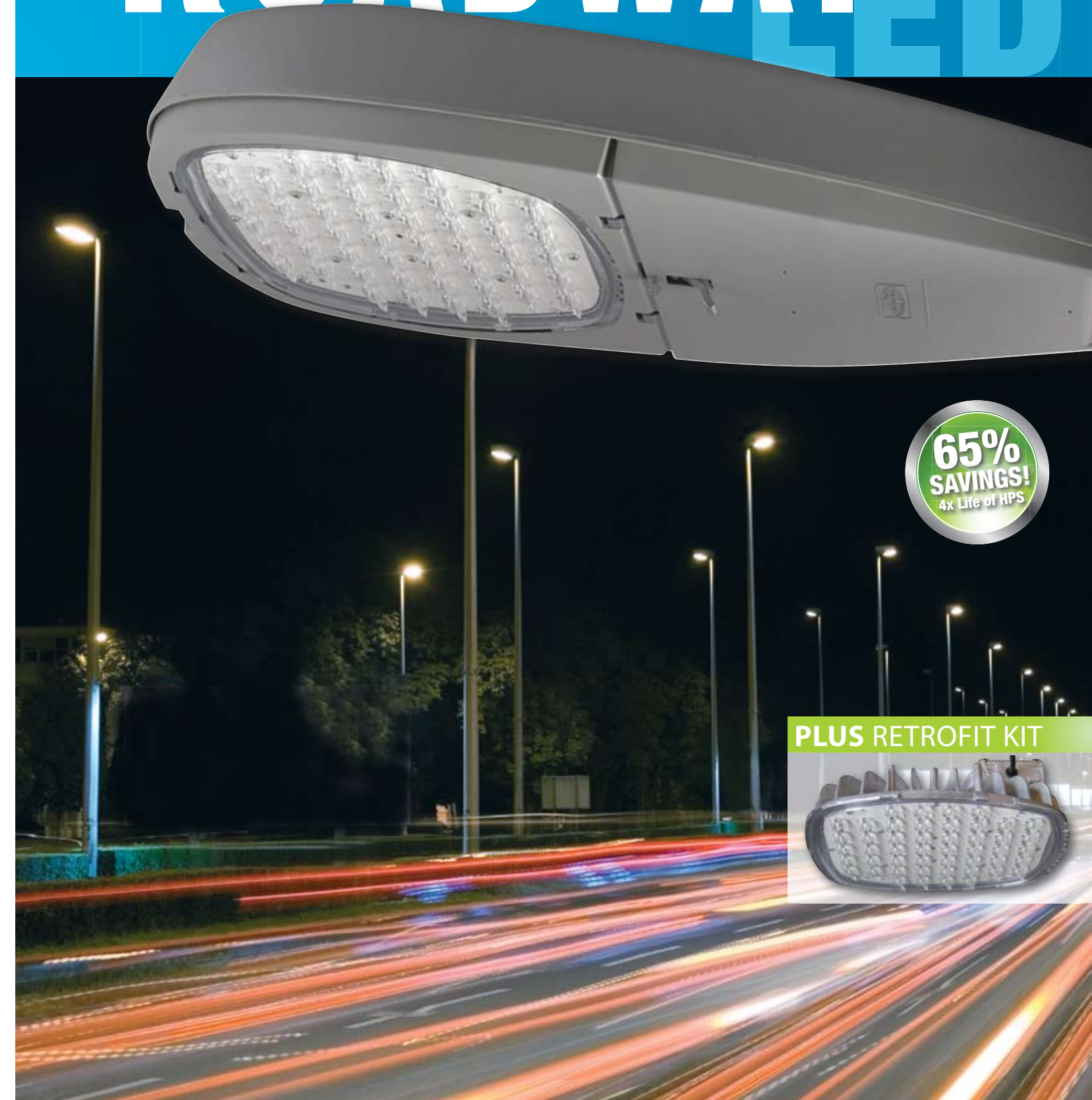
Illuminance Method: (RP-8) Recommended Minimum Maintained Average lux (fc)

| Application | Pedestrian Conflict Area | Pavement Classification lux (fc) | | | Uniform Illuminance | Veiling luminance Ratio |
|-------------|--------------------------|----------------------------------|----------|----------|---------------------|-------------------------|
| | | R1 | R2/R3 | R4 | Avg/min | Max/avg |
| Collector | High | 8 (0.8) | 12 (1.2) | 10 (1.0) | 4.0 | 0.4 |
| | Medium | 6 (0.6) | 9 (0.9) | 8 (0.8) | 4.0 | 0.4 |
| | Low | 4 (0.4) | 6 (0.6) | 5 (0.5) | 4.0 | 0.4 |
| Local | High | 6 (0.6) | 9 (0.9) | 8 (0.8) | 6.0 | 0.4 |
| | Medium | 5 (0.5) | 7 (0.7) | 6 (0.6) | 6.0 | 0.4 |
| | Low | 3 (0.3) | 4 (0.4) | 4 (0.4) | 6.0 | 0.4 |

Based on current IESNA guidelines



ROADWAY LED



65% SAVINGS!
4x Life of HPS

PLUS RETROFIT KIT



ROADWAY LED

The Hubbell Outdoor Lighting Roadway RM LED fixture is designed to replace 100-150w HPS and 175w Mercury cobra-head fixtures. The fixture features state of the art optics, twin clamp mounting with leveling capability, bird shield, two door easy service, terminal block, surge arrester and LED ANSI label.

The optical package on the RM LED utilizes Nichia LED, the inventor of white LED technology, and optics designed and tested by Hella, Inc. USA, a recognized world leader in cutting-edge LED optical design and control. The system is hermetically sealed within a clear PMMA acrylic sag lens that optimizes light output while protecting the individual precision LED lenses. This optical assembly is mated to a die-cast aluminum heat sink to optimize heat dissipation and assure LED operation temperatures that produce maximum lumen output in 'real world' conditions. A moisture control Gortex® seal is located in the top of the heat sink that allows expanding air to move in and out, but eliminates any moisture penetration into the optic.

A custom three channel driver from Thomas Research Products delivers optimized 425mA current to the LEDs providing power to the engine while a Class C1 10,000kV surge arrester protects the system.

RETROFIT KIT

For existing 100-175w cobra-heads, a retrofit kit is available that is complete with IP67 optics, universal 100-277V input driver and surge protector. The retrofit kit has been tested and certified for use in American Electric, Cooper, Lithonia and GE fixtures (see page 4).

Roadway Key Features

- Replaces 100-150w HPS or 175w Mercury fixtures
- Established technology and performance
- 68w – Universal voltage 120-277V, 50/60Hz
- 48,000 hr L90 / calculated 100,000+ hr L70 LED life
- 4800K, high CRI LEDs
- 6087 lumens (LM79)
- 89 lumens per watt
- Standard mounting for existing mast arms
- Type II medium cut-off distribution, BUG rating B1-U1-G1
- Industry leading 4 point LED engine retention – 3G design
- 5 year warranty
- Made in the USA

- Sealed LED light engine with PMMA acrylic cover
- Individual Type II LED lenses provide additional light contribution from all 48 LEDs
- Precision optical design by Hella, Inc. USA
- IP67 rated optics and driver seal



Custom die-cast heat sink assures LEDs operate within design temperatures for excellent life and efficiency

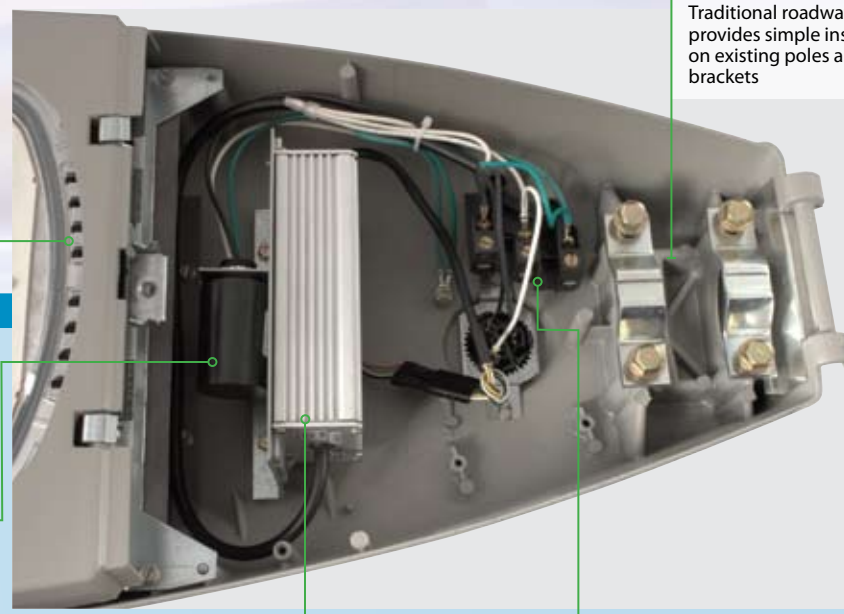
Gortex® shield allows light engine to breathe without any moisture entry



Screw and latch driver door closure – simple, safe access



10kV surge protector (easily replaceable)



100-277V Universal 50/60Hz driver rated at 100,000 hr life driven at 425mA, IP67 rated

Three position terminal block able to accept up to #6 wiring cable

Integrated venting provides airflow for maximum life of components

Traditional roadway design provides simple installation on existing poles and brackets



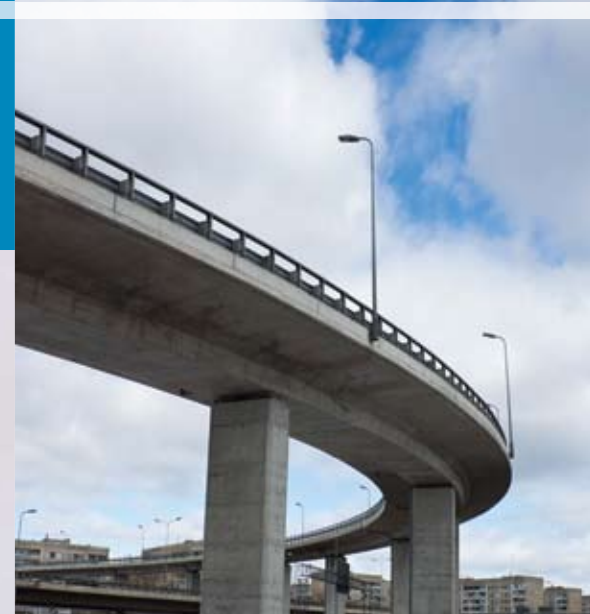
- 3G rated complete roadway fixture
- Textured powder paint finish – Gray and Bronze standard (custom RAL finishes by quotation)



Optional twistlock photocontrol receptacle (order PTL photocontrols separately)



Aluminum bird shield standard, fits 1-1/4" or 2" standard pipe arms



ROADWAY LED RETROFIT



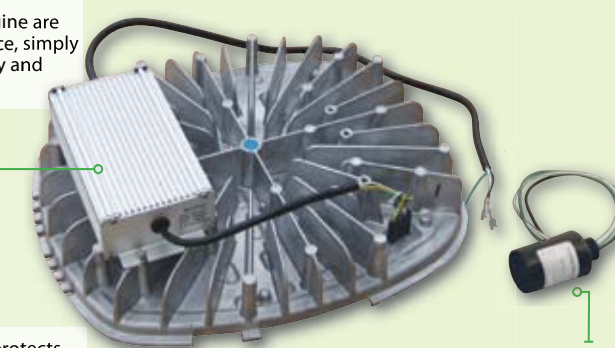
RF LED Retrofit kit

Millions of existing roadway fixtures currently line the streets and highways of the world. The Hubbell Outdoor RF LED Retrofit kit is designed to replace inefficient 100-150w HPS or 175w Mercury fixtures while saving up to 65% energy and virtually eliminating maintenance.

The excellent uniformity coupled with the more visible 'white' light improves safety for both drivers and pedestrians.

The **RF-48LU-5K** is easy to install using existing fixture retaining clips once the HID optics are removed.

Driver and light engine are supplied in one piece, simply mount the assembly and apply power



Die-cast heat sink protects LEDs, 50/60Hz, 100-277V system for versatile electrical requirements

To assist in protecting your investment, a 10,000 volt surge protector is included for installation in the existing fixture

The RF LED retrofits the following manufacturers' fixtures:

Convert existing fixtures in minutes! Simply remove existing optical assembly and lens, install LED retrofit unit into door assembly with existing lens retainer(s), connect power leads and close door.

| Hubbell Lighting | RM Series |
|-------------------|---------------------------|
| American Electric | AEL 115 (113, 313) |
| Lithonia | CHL, CHLD |
| General Electric | M250R2/A2 |
| Cooper | OVG, OVH, RC |

Please check with factory for more details

