

MOTION RESPONSE

MOTION ACTIVATED DUAL-LEVEL HID AREA LIGHTING

PHILIPS

 **GARDCO**

MOTION RESPONSE

DUAL LEVEL HID LIGHTING

Pulse Start Metal Halide and High Pressure Sodium lamps are the most common sources utilized in exterior area lighting applications. They provide high light output, long lamp life, and allow for excellent optical control. However, HID lamps require time to warm up to full output, and, after being turned off, must cool down prior to restrike. It is impractical to frequently turn HID sources on and off. As a result, areas are illuminated to full light levels, even when the area is unoccupied or inactive.

The Gardco Motion Response Dual Level HID System solves this problem.

- The luminaire is ignited and warms up to full brightness, staying on high mode for 15 minutes.
- If no motion is detected by the pole mounted motion sensor, the system switches to low mode, reducing energy consumption by up to 50%. (Light output is reduced by a greater amount.)
- When motion is detected, the luminaire returns to full light output, for as long as there is activity.
- The time delay before returning to low mode is easily field adjustable from 12 seconds up to 16 minutes.

SAVING ENERGY

When the area is unoccupied, the system operates in low mode, using up to 50% less energy. Depending on the percentage of time the system operates on low, the overall savings can be very substantial.

The table below shows the energy savings based on the HID source and the percentage of time in low mode.

| HID Source | Lamp Wattage | High Mode System Watts ¹ | Low Mode System Watts ¹ | Average Watts ¹ Saved Per Luminaire Based on Percent of Time in Low Mode | | | | | | | |
|--------------------------|--------------|-------------------------------------|------------------------------------|---|-----|-----|-----|-----|-----|-----|-----|
| | | | | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% |
| Pulse Start Metal Halide | 175 | 208 | 125 | 17 | 25 | 33 | 42 | 50 | 58 | 66 | 75 |
| | 200 | 232 | 139 | 19 | 28 | 37 | 47 | 56 | 65 | 74 | 84 |
| | 250 | 288 | 156 | 26 | 40 | 53 | 66 | 79 | 92 | 106 | 119 |
| | 320 | 365 | 208 | 31 | 47 | 63 | 79 | 94 | 110 | 126 | 141 |
| | 350 | 386 | 193 | 39 | 58 | 77 | 97 | 116 | 135 | 154 | 174 |
| | 400 | 460 | 244 | 43 | 65 | 86 | 108 | 130 | 151 | 173 | 194 |
| High Pressure Sodium | 150 | 188 | 71 | 23 | 35 | 47 | 59 | 70 | 82 | 94 | 105 |
| | 250 | 300 | 111 | 38 | 57 | 76 | 95 | 113 | 132 | 151 | 170 |
| | 400 | 465 | 172 | 59 | 88 | 117 | 147 | 176 | 205 | 234 | 264 |

1. Actual HID system wattage is affected by many factors, including lamp age, lamp manufacturer, burning position, line voltage variation, power condition, ballast age, and more. The wattage values are shown here as a general guideline only. Actual wattage values may vary from the values shown.

SAVING MONEY

For example, using 400 watt Pulse Start Metal Halide, if the area is unoccupied 80% of the time the average watts saved on low is 173 watts. Burning 12 hours per day, the annual savings per luminaire are:

\$76 (\$.10 per KWH) \$114 (\$.15 per KWH)

(Note: Average Commercial Electric rate for the USA in 2008 = \$.103, for California = \$.153)

SYSTEM COMPONENTS

1) Specify the luminaire with the "GMR" option (See back page for luminaire families.) This includes the ballast with dual capacitor, and the necessary additional wiring for inside the pole from the luminaire to the GMR connection j-box. The GMR system requires a magnetic constant wattage autotransformer (CWA) ballast.

2) Specify a pole with the "GMR" option - provision for Motion Response System, available with Philips Gardco aluminum and steel poles, in lengths from 15 feet to 30 feet .

3) Specify the Gardco Motion Response System

- GMR-1 for a single luminaire (1-Control Module, 1 Motion Sensor, 1 Shroud)
- GMR-2 for twin luminaires (2-Control Modules, 1 Motion Sensor, 1 Shroud)
- Contact your Philips Gardco Representative for assistance with triple or quad configurations.

OUTDOOR MOTION SENSOR



Features:

- Adjustable time delay settings
- 270° field of view
- Weatherproof and raintight
- Rated for use in temperature range of -40° to 130° F
- Provided in Arctic White color

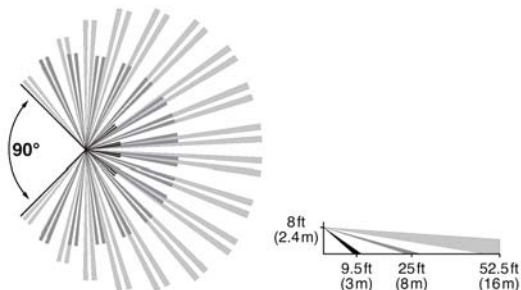
CONTROL MODULE



Control Modules and Motion Sensors manufactured by WattStopper.

CONTROLLED WITH **WattStopper** | **legrand**

270° MOTION SENSOR COVERAGE



SYSTEM SHROUD

If the luminaires are ordered with a painted finish, the Shroud is painted to match.

For luminaires ordered with an anodized finish, the shroud is painted as shown below:

Luminaire: Bronze Anodized (BRA)

Shroud : Bronze Paint (BRP)

Luminaire: Black Anodized (BLA)

Shroud : Black Paint (BLP)

Luminaire: Natural Anodized (NA)

Shroud : Natural Aluminum Paint (NP)

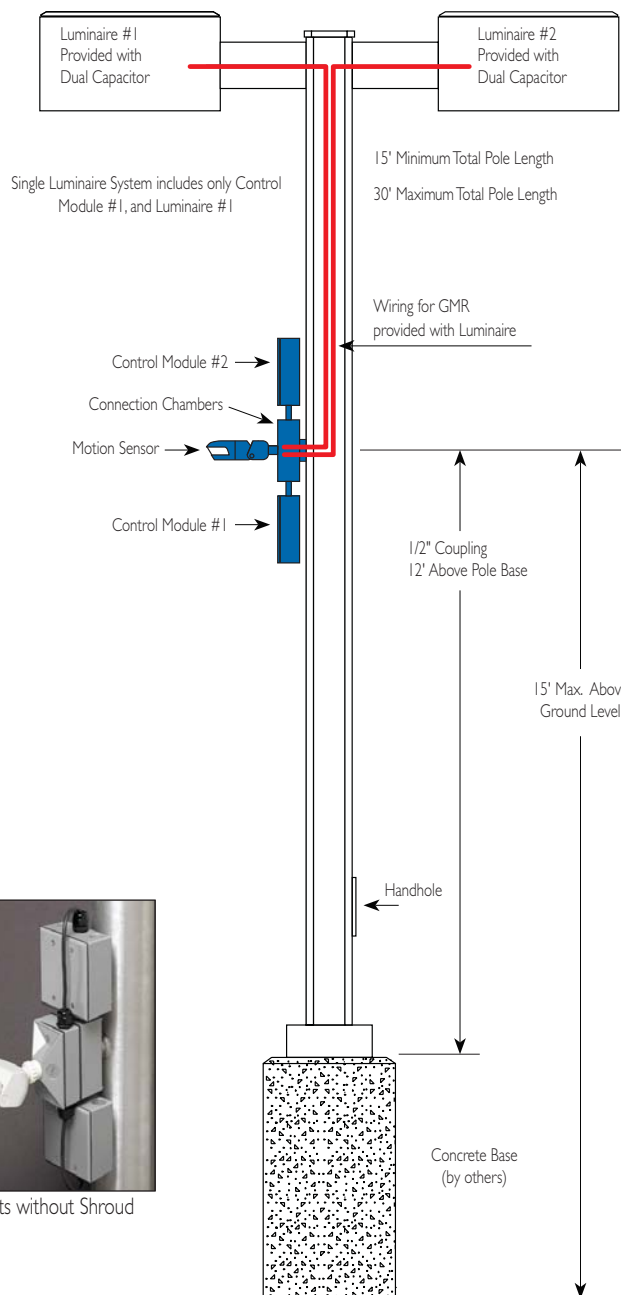


System with Shroud



Components without Shroud

TYPICAL TWIN LUMINAIRE SYSTEM



A full line of Philips Gardco and Emco luminaires are available with the Motion Response System.

PHILIPS GARDCO AREA LUMINAIRES



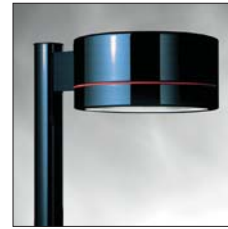
Gullwing



Circa



Form 10 Square



Form 10 Round



Contura



Crown



HPV



Pyramid

EMCO AREA LUMINAIRES



Avalume



Avaround



Ecolume/Decolume



Ecoround

Note: Consult submittal data sheets on sitelighting.com for information on any specific product family. Not all products are available in all possible Motion Response wattages. Some products have limitations on available input voltages. Luminaires require a magnetic constant wattage autotransformer (CWA) ballast for the Motion Response system.

Our Commitment to Sustainability



Gardco incorporates a "green" symbol to help its customers identify products that offer maximized energy savings. This symbol appears on product lines, or configurations within a product line, to help customers more quickly identify products that offer "true" energy consumption reduction.

Gardco has a long history of approaching site lighting with a "less is more" strategy. Minimizing the number of luminaires and poles required on a site through performance optics and other product features was a founding principal of the company.

Use of energy efficient lamps and ballasts has become an important component of all product offerings and of our product engineering strategies. We consider energy consumption in our choice of lamps used with products. For products using fluorescent lamps we seek and encourage the use of lamps with the lowest mercury content possible.

Embracing new energy efficient technologies, such as high light output lamps and LEDs, is at the heart of all current new product development efforts.

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Philips Gardco Warranty

Philips Gardco luminaires feature a five year limited warranty. For full warranty information please visit sitelighting.com.



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