GPI

Garage Lighting Featuring the CosmoPolis™ Electronic System

PHILIPS

GARDCO

ESSENTIALS

The parking garage is a difficult and punishing environment for the designer and specifier – a problem compounded by confined spaces, the threat of vandalism, exhaust fumes and other pollutants, and low, coffered ceilings. But while garage lighting presents many challenges, there is a single solution to meet them all – the Gardco GP1.

Now, the bar is raised ever higher with the introduction of the CosmoPolis™ electronic system.

THE CLEAR SOLUTION: COSMOPOLIS™

For the specifier considering LED or HID lamps... these systems have their price. The CosmoPolis™ Lighting System is the proverbial best of both worlds, because only CosmoPolis™ delivers ultra low-energy, high-efficiency lighting... without the costly LED price tag.

CosmoPolis™ combines a revolutionary white light ceramic metal halide lamp and an optimized electronic ballast that maximizes performance – including improved visibility, long life and low power consumption. By reducing energy use up to 50%, CosmoPolis™ is the clear green solution... all without spending a lot of "green."

Energy efficient systems are attractive for both environmental and economical reasons, and only CosmoPolis™ satisfies both of these metrics. While both LED and CosmoPolis™ offer substantially lower operating costs than comparable HID systems, CosmoPolis™ comes with a price tag at about half that of LED, providing payback in energy savings in half the time.

GP1

THE RIGHT LUMINAIRE.

THE RIGHT OPTICAL SYSTEM.

The heart of the GP1 luminaire is the first optical system designed expressly for parking structures – the Type 1R. Because of its rectangular distribution pattern, required light levels can be achieved with fewer luminaires... providing both initial cost and long-term operating savings.

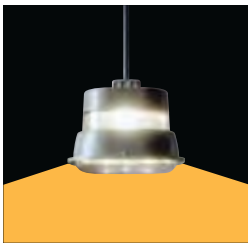
Through the combination of the Type 1R rectangular distribution pattern and cutoff of light in glare zones, GP1 luminaires set the standard for visibility and efficiency.

LASTING PERFORMANCE

Meticulous design and conscientious choice of materials promise long-term, low-maintenance operation. To resist corrosion and vandalism, the lower housing is made of heavy-gauge acrylic. The canopy section, which houses the electrical components, is rugged die cast aluminum. Precision optical components are completely sealed against moisture and dirt to ensure long-term maintenance of specified lighting levels.

CUTOFF AND GLARE CONTROL

Downlight with minimal glare makes GP1 ideal in both one- and two-per-bay luminaire spacing. Peak candlepower exists only in the corners, and there is cutoff above the 75° angle.

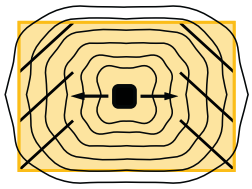


UPLIGHT

To eliminate dark ceilings and walls, uplight is provided from a 360° window. Vertical flutes enhance the uniformity of uplight and reduce overall brightness.

UNIFORMITY OF ILLUMINATION

The GP1 optical system is designed to ensure uniform appearance of pavement luminance... a garage free of ominous light and dark zones.



RECTANGULAR DISTRIBUTION

Peak candlepower at the corners from GP1's rectangular pattern means higher light levels, fewer dark zones, minimum wasteful pattern overlap, and generally, the better visibility that accompanies uniform lighting.

UP TO 50% LESS ENERGY

The GP1 is available with the CosmoPolis™ system, which reduces environmental impact and provides substantial cost savings. With an energy-efficient lamp and ballast that reduces greenhouse gas emissions, CosmoPolis™ produces highly visible white light while using up to 50% less energy than traditional lamp sources.

LIFE CYCLE ECONOMY

The Type 1R optical system often allows lighting criteria to be achieved with fewer luminaires than other systems. Superior illumination from fewer luminaires translates into lower initial cost, reduced energy consumption, lower maintenance and, perhaps most important, a safer facility with less exposure to liability.

LAMP SYSTEMS

COSMOPOLIS™

CosmoPolis™ provides a wealth of advantages to the designer and specifier. Because of its highly visible, energy-efficient white light, only half the watts are needed to light areas to desired levels, resulting in substantial savings and reduced environmental impact in both the short and long term.

It is the marriage of performance, economics and sustainability that sets CosmoPolis™ apart. The system uses up to 50% less energy than traditional outdoor lighting systems, and typically lowers energy costs up to 40% compared to most systems used today. The highly efficient lamps and ballasts reduce CO_2 greenhouse gas emissions, and the long lifespan lengthens replacement intervals. Priced significantly lower than most LED systems, CosmoPolis™ is an efficient, environmentally conscious HID lighting solution for the full range of garage applications.

Watts	60W	90W
Approx. Initial Lumens	60W: 6,900 lumens	90W: 10,450 lumens
Rated Average Life	60W: 20,000 hours	90W: 20,000 hours
Dependable Service	At 12,000 hours the 60W CosmoPolis™ lamp has a 90% survival rate and more than 80% lumen maintenance	

Lumens and rated average life based on vertical lamp operation of CosmoPolis™ lamps.

Simply put, the course for garage lighting begins with CosmoPolis™. For certain particularized applications, other lamping choices are available, but CosmoPolis™ is today's "go-to" solution.

HIGH INTENSITY DISCHARGE

High intensity discharge (HID) options are also available for the GP1 – including metal halide, pulse start metal halide, ceramic metal halide with electronic ballast, and high pressure sodium.

Gardco GP1 luminaires outperform competitive products in controlling glare and economically providing garage illumination with excellent uniformity, regardless of ceiling configuration. With any of the lamping options, the complex optical assembly eliminates the hot spots, dark spots, streaks and striations generated by many other types of luminaires. Light is precisely and predictably site-confined, and glare at normal viewing angles is eliminated. GP1 with a traditional HID lamp is a superior luminaire that is up to most any job, and will help minimize initial cost.

The relevant metric here is payback – the measure of how quickly the CosmoPolis™ lamp pays for itself and begins generating substantial energy savings. The chart below shows how the GP1 outfitted with the 90-watt CosmoPolis™ compares with the GP1 equipped with a 150-watt metal halide magnetic ballast and with a standard LED application. As seen, while still generating approximately the same footcandle levels at two luminaires per garage bay, the CosmoPolis™ system pays for itself in just 1.2 years (at 15 cents per kilowatt-hour) or 1.8 years (at 10 cents per kilowatt-hour), while the LED payback time is more than triple this. Beyond the payback time, a drop in the electric bill of up to 40% means that CosmoPolis™ provides a handsome return on investment for the entire life of the luminaire.

	HID	CosmoPolis™	LED
Watts per Luminaire	185	99	93
Luminaires per Garage Bay	2	2	2
Watts per Garage Bay	370	198	186
Spacing	30 x 30	36 x 30	36 x 30
Minimum Footcandles	4.0	3.8	2.12
Average Footcandles	6.87	5.5	4.96
Annual Burning Hours	8,760	8,760	8,760
Annual Energy Cost ($0.10 / KWH)	324.12	173.45	162.94
Annual Energy Cost ($0.15 / KWH)	486.18	260.17	244.40
Typical Added Cost per Luminaire	Baseline	157	508
Typical Added Cost per Garage Bay	Baseline	314	1,016
Annual Energy Savings ($0.10 / KWH)	Baseline	150.67	161.18
Annual Energy Savings ($0.15 / KWH)	Baseline	226.01	241.78
Payback ($0.10 / KWH)	Baseline	1.8 Years	6.3 Years
Payback ($0.15 / KWH)	Baseline	1.2 Years	4.2 Years

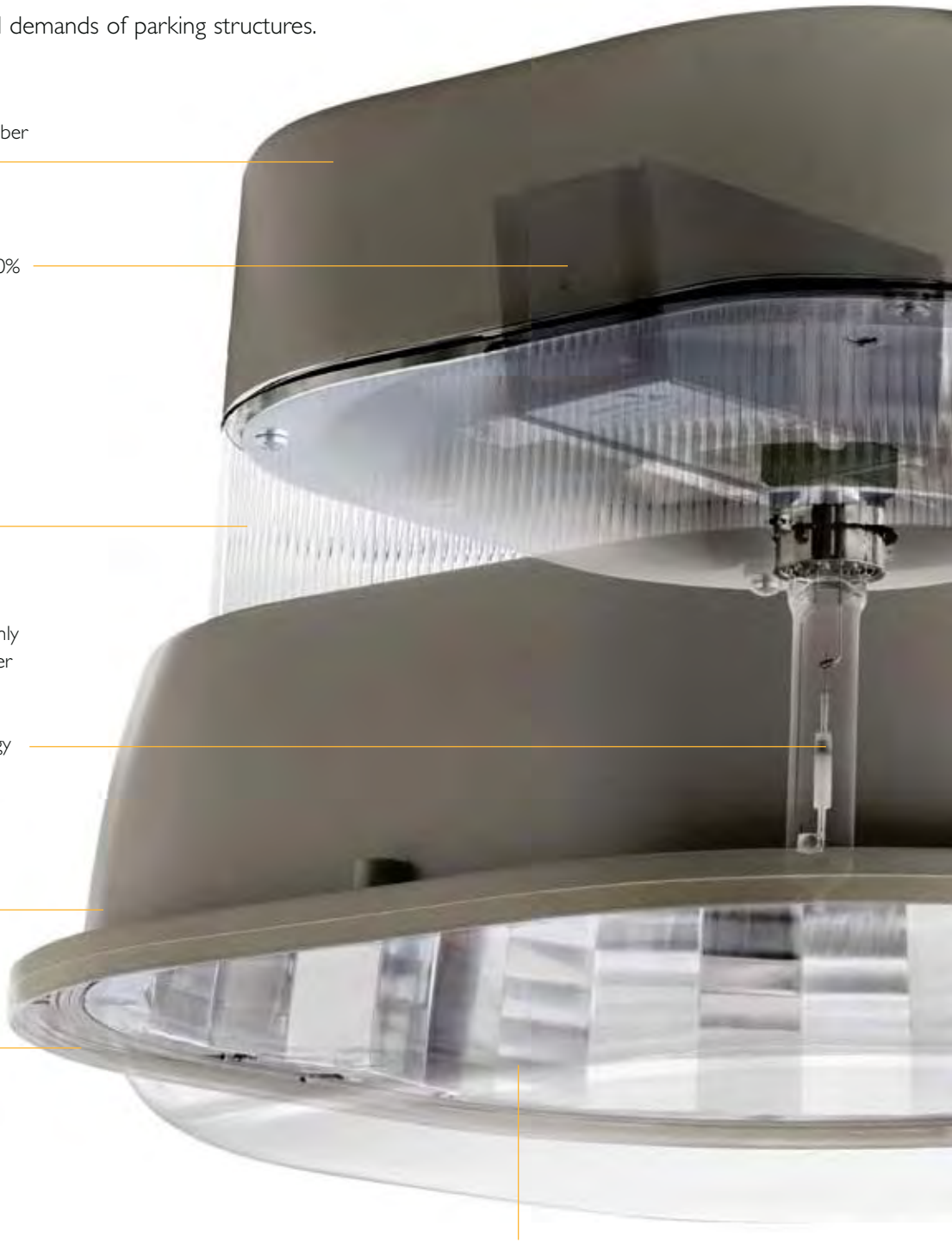
INDUCTION LAMPS

The induction lamp provides an attractive option for the specifier faced with remote or hard-to-service locations. Where exceptionally long-term, maintenance-free operation is a must, induction lamps answer the call with a hands-off lamp life of approximately 15 years.

Frequently, the specifier considering an induction lamp is also evaluating an LED alternative. Both LED and induction meet the demands for that rare application where lamp life must be maximized and service and maintenance minimized, but only induction can satisfy these prerequisites without maximizing initial cost. As the economical alternative to costly LED systems, the induction option provides similar results at a fraction of the cost.

DESIGN & CONSTRUCTION

Application-specific design and construction create a luminaire perfectly suited to the challenges and demands of parking structures.



A rugged die cast aluminum upper chamber houses the electrical components.

High-power-factor ballasts are suitable for starting to -20°F (-29°C) and are 100% factory tested, including CosmoPolis™ system electronic ballasts (shown).

The high-strength, one-piece acrylic housing with a translucent uplight window features vertical flutes to enhance evenness of the uplight distribution and to reduce brightness.

The CosmoPolis™ system features a highly efficient lamp and ballast that offer greater visibility at a fraction of the wattage of a standard metal halide lamp. All told, CosmoPolis™ uses up to 50% less energy than traditional metal halide lamps, providing considerable energy savings, a greener site, and improved performance.

Opaque lower side sections ensure full cutoff to the lamp and lamp images at normal viewing angles.

Silicone gaskets permanently exclude moisture, dirt, insects and pollutants.

An induction lamp option is available for the rare application where remote or hard-to-service locations demand exceptionally long lamp life. With a lamp life of around 15 years, induction is the economical alternative to costly LED systems.

Semi-specular metalized aluminum downlight reflector facets are precisely positioned to provide the highly efficient Type 1R (rectangular) lighting distribution. Visitors to parking garages, whether driving or walking, should not be subjected to uncomfortable zones of darkness. The Type 1R optical system provides this recommended light level with maximum-to-minimum uniformity ratios not exceeding 10:1, creating a uniform pavement luminance free from bright and dark spots, streaks and striations.

Installation of the GP1 is both intuitive and streamlined. The system is easily accessed and is equipped with quick electrical disconnects for easy, trouble-free maintenance. The design also allows for fast retrofit for the specifier looking to capitalize on the new CosmoPolis™ lamp system and cash in on the substantial energy savings of up to 40%.

The hydroformed and anodized aluminum uplight reflector provides illumination on ceiling surfaces and vertical beams – eliminating the dark ceilings and increasing floor illumination. It is easily removed for ballast access.

The UV-resistant clear acrylic lens is retained with captive Phillips-head fasteners. The lens hinges down for relamping, and is gasketed to the housing.

EMERGENCY LIGHTING

Emergency lighting versions of the GP1 are available utilizing remote mounted emergency battery packs to provide path of egress lighting when primary power is lost.

Mounting plates are affixed to J-boxes.

Hanging from the tab, the luminaire is wired…

…and secured to the J-box assembly with a very secure lift, shift and click motion.

Lens hinges and is self-supporting during lamping.

APPLICATION

A LESSON IN SIMPLE GEOMETRY

The typical 60' parking bay, with coffered ceilings at 7' to 8', is no place for a traditional Type V distribution... where the round pattern leaves corners dark, light falls off quickly, and the symmetric peak candlepower can interfere with driving lane visibility. Overcoming the limitations of the round distribution requires costly additional luminaires with overlaps that create uneven light levels across the visual field.

The perfect optical system is the one invented for parking bays, the rectangular Type 1R. GP1 provides maximum candlepower at the corners of the distribution, eliminating brightness in the driving lane and providing comforting fill-in at the corners. Importantly, fewer luminaires are required to accomplish a superior lighting design.

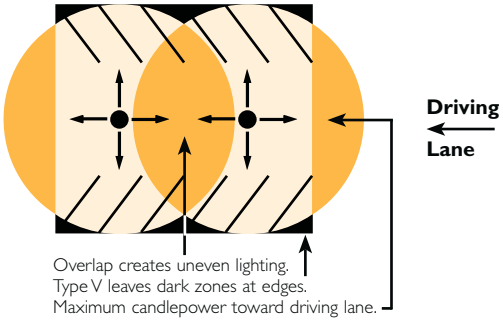
The rectangular distribution is also very well suited for two-per-bay placement. With the round symmetrical Type V distributions, a significant amount of light is wasted in overlap or on scalloping lower walls. Here again, wider spacings can be achieved with GP1's Type 1R distribution.

THE DISTRIBUTION THAT FITS

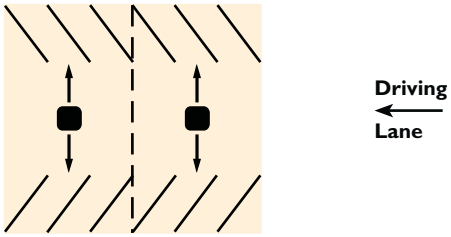
Note that when round Type V distributions are spaced two-per-bay, the corners remain dark, light levels are uneven, and much light energy is wasted. By rotating the Type 1R luminaire 90°, a more efficient utilization of light is achieved. Note at right how the Type 1R eliminates energy-wasting overlap, precisely and evenly filling the bay. Higher lumen utilization for the area covered means fewer luminaires are required to completely illuminate the garage to required light levels.

Single Luminaire Per Bay Spacing

Typical round - Type V luminaires



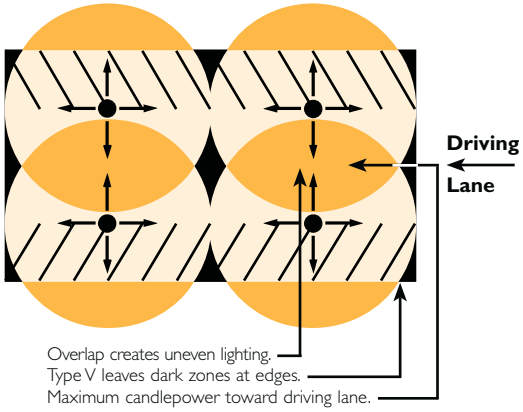
GP1



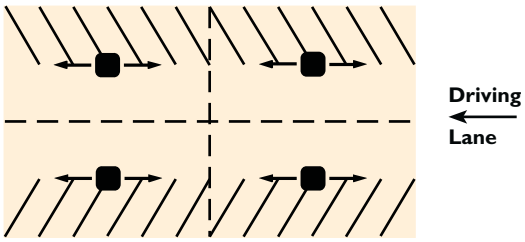
Minimal pattern overlap.
Comforting fill-in at corners.
Peak candlepower away from driving lane.

Two Luminaires Per Bay Spacing

Typical round - Type V luminaires



GP1



Minimal pattern overlap.
Comforting fill-in at corners.
Peak candlepower not continuously toward driving lane.

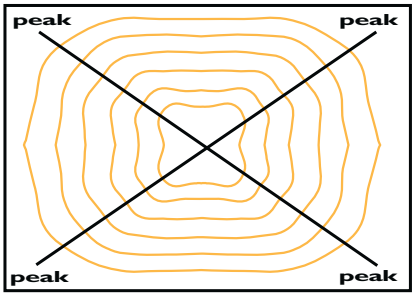
COMPLETE DOWNLIGHT GLARE CONTROL

For drivers, the most obvious advantage of the GP1 is the luminaire's low glare. Peak candlepower exists only in the corners of the distribution, where it provides fill-in to otherwise dark corners. Cutoff of light above 75° in the driving lane means that motorists will not drive into a zone of brightness... a significant enhancement to the safety of a facility. Even when units are placed two-per-bay, the movement through the peak light output is instantaneous.

UPLIGHT ILLUMINATION FOR A SAFE, SECURE FACILITY

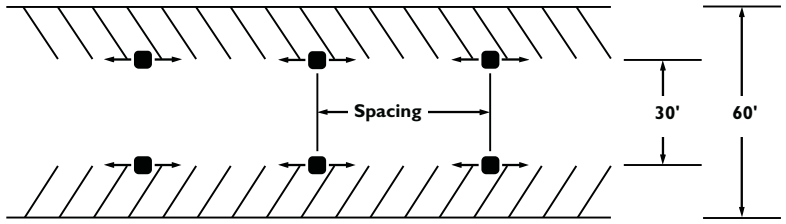
Illumination of ceilings and walls provides patrons with a sense of comfort and security, especially as motorists leave vehicles and become pedestrians. The GP1's uplight reflector directs lamp lumens through translucent vertical flutes. The flutes soften the brightness, yet assist light distribution uniformity up and along the ceiling and on walls. The result is a safe, secure, well-lit space.

Luminaires with a round distribution place the driver directly in line with the peak candlepower angle of the luminaire. The effect is not only discomforting, but at the low mounting heights typical in garages, may significantly impair the motorist's ability to see vehicles and pedestrians. GP1 with rectangular distribution eliminates these problems.



APPLICATION

- Single-Bay Construction
- Two Luminaires Per Bay



ILLUMINATION LEVELS

- Maintained Footcandles

All Scenarios 60' wide bays, two luminaires per bay at 30' apart, Single Bay Construction

Lamp	Mounting Height To Luminaire Aperture	Typical Spacings	No Interreflectance Avg	Max	Min	Avg/ Min	Max/ Min	Maximum Spacing*	40% Ceiling Interreflectance Avg	Max	Min	Avg/ Min	Max/ Min
90W CMPE (CosmoPolis™ Electronic System) 10,450 Initial Lumens 0.90 LLF	7'	20'	8.71	14.94	3.70	2.35	4.04	35'	9.82	16.43	4.19	2.34	3.92
		30'	6.00	11.02	2.83	2.12	3.89		6.76	11.57	3.23	2.09	3.58
		40'	4.36	9.13	0.80	5.45	11.41		4.92	10.74	0.91	5.41	11.80
	8'	20'	8.62	15.03	4.26	2.02	3.53	35'	9.66	16.63	4.89	1.98	3.40
		30'	5.60	7.98	2.69	2.08	2.97		6.34	8.56	3.06	2.07	2.80
		40'	4.31	7.83	1.60	2.69	4.89		4.84	9.19	1.73	2.80	5.31
150W PSMH 14,000 Initial Lumens 0.75 LLF	7'	20'	10.50	17.67	4.42	2.38	4.00	43'	11.63	19.68	4.94	2.35	3.98
		30'	6.96	10.00	2.96	2.35	3.38		7.65	10.60	3.40	2.25	3.12
		40'	5.25	10.27	1.56	3.36	6.58		5.82	10.81	1.66	3.51	6.51
	8'	20'	10.58	16.27	4.86	2.18	3.35	43'	11.64	18.17	5.41	2.15	3.36
		30'	6.83	9.54	3.39	2.01	2.81		7.52	10.21	3.83	1.96	2.67
		40'	5.29	8.63	2.39	2.21	3.61		5.83	9.46	2.62	2.23	3.61

** Maximum Spacing while maintaining 5.0 footcandles average, No Interreflectance.*

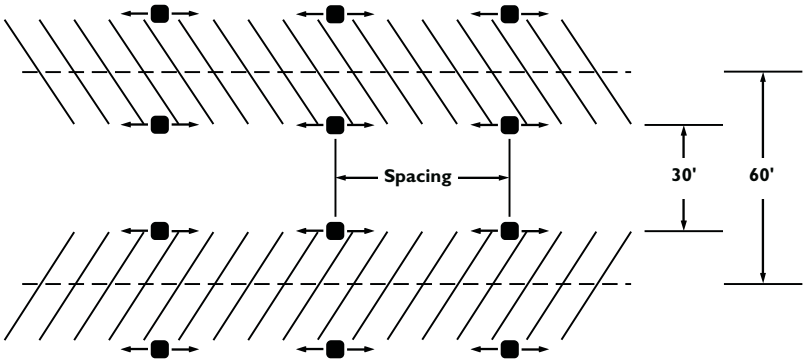
	Mounting Height To Luminaire Aperture	Typical Spacings	No Interreflectance Avg	Max	Min	Avg/ Min	Max/ Min	Maximum Spacing*	40% Ceiling Interreflectance Avg	Max	Min	Avg/ Min	Max/ Min
100W HPS 9,500 Initial Lumens 0.80 LLF	7'	20'	7.32	11.12	3.56	2.06	3.12	28'	8.24	12.71	4.02	2.05	3.16
		30'	4.91	7.94	2.39	2.05	3.32		5.51	8.41	2.78	1.98	3.03
		40'	3.66	6.3	1.31	2.79	4.81		4.12	6.64	1.38	2.99	4.81
	8'	20'	7.09	9.14	3.71	1.91	2.46	28'	7.98	10.78	4.18	1.91	2.58
		30'	4.71	7.32	2.46	1.91	2.98		5.30	7.83	2.86	1.85	2.74
		40'	3.55	5.72	1.79	1.98	3.2		4.00	6.26	2.01	1.99	3.11
150W HPS 16,000 Initial Lumens 0.80 LLF	7'	20'	12.63	18.34	7.12	1.77	2.58	47'	14.02	20.80	7.69	1.82	2.70
		30'	8.67	14.73	4.29	2.02	3.43		9.51	15.47	4.88	1.95	3.17
		40'	6.32	10.93	2.69	2.35	4.06		7.02	11.96	2.76	2.54	4.33
	8'	20'	12.46	18.00	6.42	1.94	2.80	48'	13.80	20.29	7.10	1.94	2.86
		30'	8.18	11.17	4.32	1.89	2.59		9.04	12.35	4.84	1.87	2.55
		40'	6.23	9.47	3.20	1.95	2.96		6.91	11.15	3.55	1.95	3.14

** Maximum Spacing while maintaining 5.0 footcandles average, No Interreflectance.*

- Multi-Bay Construction
- Two Luminaires Per Bay

ILLUMINATION LEVELS

- Maintained Footcandles



All Scenarios 60' wide bays, two luminaires per bay at 30' apart, Multi-Bay Construction

Lamp	Mounting Height To Luminaire Aperture	Typical Spacings	No Interreflectance Avg	Max	Min	Avg/ Min	Max/ Min	Maximum Spacing*	40% Ceiling Interreflectance Avg	Max	Min	Avg/ Min	Max/ Min
90W CMPE (CosmoPolis™ Electronic System) 10,450 Initial Lumens 0.90 LLF	7'	20'	9.36	15.10	6.17	1.52	2.45	36'	10.55	16.67	6.92	1.52	2.41
		30'	6.44	11.14	4.47	1.44	2.49		7.25	11.71	5.07	1.43	2.31
		40'	4.68	9.21	1.17	4.00	7.87		5.29	10.86	1.35	3.92	8.04
	8'	20'	9.68	15.27	8.13	1.19	1.88	38'	10.82	16.97	9.00	1.20	1.89
		30'	6.32	8.15	5.09	1.24	1.60		7.11	8.79	5.65	1.26	1.55
		40'	4.85	7.94	2.45	1.97	3.24		5.42	9.33	2.64	2.05	3.53
150W PSMH 14,000 Initial Lumens 0.75 LLF	7'	20'	11.84	17.88	9.48	1.25	1.89	45'	13.07	19.95	10.92	1.2	1.83
		30'	7.90	10.14	5.83	1.36	1.74		8.63	10.8	6.69	1.29	1.61
		40'	5.93	10.36	2.30	2.58	4.50		6.54	10.98	2.5	2.62	4.39
	8'	20'	12.40	16.63	8.90	1.39	1.87	46'	13.55	18.61	10.37	1.31	1.79
		30'	8.07	9.81	5.06	1.59	1.94		8.81	10.49	7.15	1.23	1.47
		40'	6.20	8.81	4.14	1.50	2.13		6.79	9.68	4.32	1.57	2.24

** Maximum Spacing while maintaining 5.0 footcandles average, No Interreflectance.*

	Mounting Height To Luminaire Aperture	Typical Spacings	No Interreflectance Avg	Max	Min	Avg/ Min	Max/ Min	Maximum Spacing*	40% Ceiling Interreflectance Avg	Max	Min	Avg/ Min	Max/ Min
100W HPS 9,500 Initial Lumens 0.80 LLF	7'	20'	8.29	11.33	6.37	1.30	1.78	32'	9.28	12.96	7.93	1.17	1.63
		30'	5.58	8.1	3.09	1.81	2.62		6.21	8.62	4.83	1.29	1.78
		40'	4.15	6.41	1.77	2.34	3.62		4.65	6.78	1.91	2.43	3.55
	8'	20'	7.09	9.14	3.71	1.91	2.46	32'	9.37	11.19	7.69	1.22	1.46
		30'	5.59	7.61	2.69	2.08	2.83		6.23	8.16	4.33	1.44	1.88
		40'	4.20	5.81	3.04	1.4	1.93		4.69	6.33	3.20	1.47	1.98
150W HPS 16,000 Initial Lumens 0.80 LLF	7'	20'	14.35	18.85	12.96	1.11	1.45	52'	15.86	21.37	13.95	1.14	1.53
		30'	9.86	15.12	6.43	1.53	2.35		10.75	15.92	8.47	1.27	1.88
		40'	7.18	11.18	4.10	1.75	2.73		7.94	12.29	4.32	1.84	2.84
	8'	20'	14.74	19.04	11.55	1.28	1.65	54'	16.21	21.45	13.32	1.22	1.61
		30'	9.73	11.94	6.21	1.57	1.92		10.66	12.76	8.72	1.22	1.46
		40'	7.38	9.95	5.70	1.29	1.75		8.12	11.39	6.48	1.25	1.76

** Maximum Spacing while maintaining 5.0 footcandles average, No Interreflectance.*

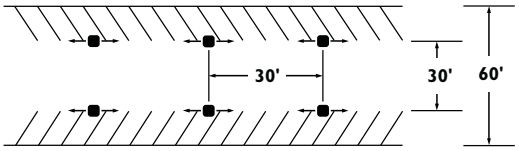
APPLICATION

SINGLE-BAY CONSTRUCTION – 85W Induction - 6,000 lumens, 0.8 LLF

All Scenarios 60' wide bays

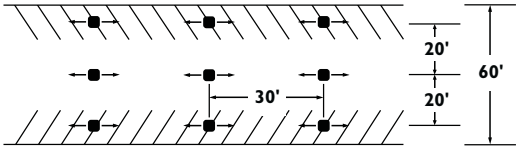
Two luminaires per bay at 30' apart, 30' spacing

Mounting Height To Luminaire Aperture	No Interreflectance					40% Ceiling Interreflectance				
	Avg	Max	Min	Avg/ Min	Max/ Min	Avg	Max	Min	Avg/ Min	Max/ Min
7'	3.11	8.56	1.33	2.34	6.44	3.41	9.56	1.43	2.38	6.69
8'	3.03	6.77	1.55	1.95	4.37	3.33	7.62	1.66	2.01	4.59



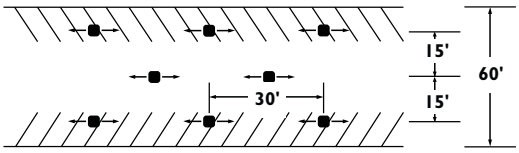
Three luminaires per bay at 20' apart, 30' spacing

Mounting Height To Luminaire Aperture	No Interreflectance					40% Ceiling Interreflectance				
	Avg	Max	Min	Avg/ Min	Max/ Min	Avg	Max	Min	Avg/ Min	Max/ Min
7'	4.57	9.25	2.36	1.94	3.92	5.02	10.25	2.54	1.98	4.04
8'	4.42	8.03	2.57	1.72	3.12	4.86	8.92	2.77	1.75	3.22



Two luminaires per bay at 30' apart, 30' Spacing – staggered, 30' by 30' down the center of bay

Mounting Height To Luminaire Aperture	No Interreflectance					40% Ceiling Interreflectance				
	Avg	Max	Min	Avg/ Min	Max/ Min	Avg	Max	Min	Avg/ Min	Max/ Min
7'	4.88	9.74	1.45	3.37	6.72	5.35	10.67	1.56	3.43	6.84
8'	4.77	8.71	1.76	2.71	4.95	5.24	9.55	1.88	2.79	5.08

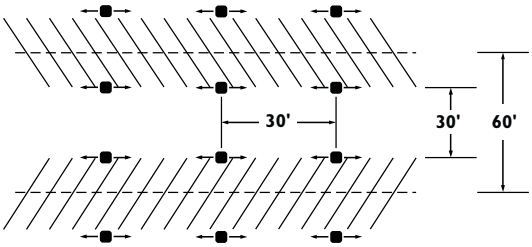


MULTI-BAY CONSTRUCTION – 85W Induction - 6,000 lumens, 0.8 LLF

All Scenarios 60' wide bays

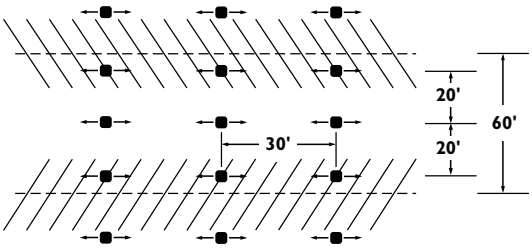
Two luminaires per bay at 30' apart, 30' spacing

Mounting Height To Luminaire Aperture	No Interreflectance					40% Ceiling Interreflectance				
	Avg	Max	Min	Avg/ Min	Max/ Min	Avg	Max	Min	Avg/ Min	Max/ Min
7'	3.40	8.74	1.97	1.73	4.44	3.73	9.77	2.12	1.76	4.61
8'	3.40	7.01	2.37	1.43	2.96	3.74	7.89	2.54	1.47	3.11



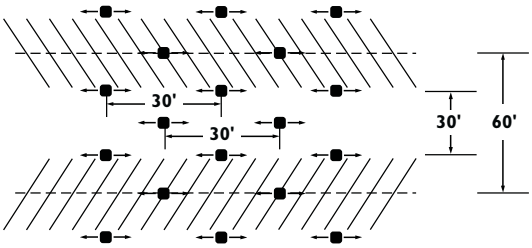
Three luminaires per bay at 20' apart, 30' spacing

Mounting Height To Luminaire Aperture	No Interreflectance					40% Ceiling Interreflectance				
	Avg	Max	Min	Avg/ Min	Max/ Min	Avg	Max	Min	Avg/ Min	Max/ Min
7'	5.17	9.74	3.59	1.44	2.71	5.67	10.83	3.87	1.47	2.80
8'	5.14	8.25	4.07	1.26	2.03	5.64	9.15	4.37	1.29	2.09



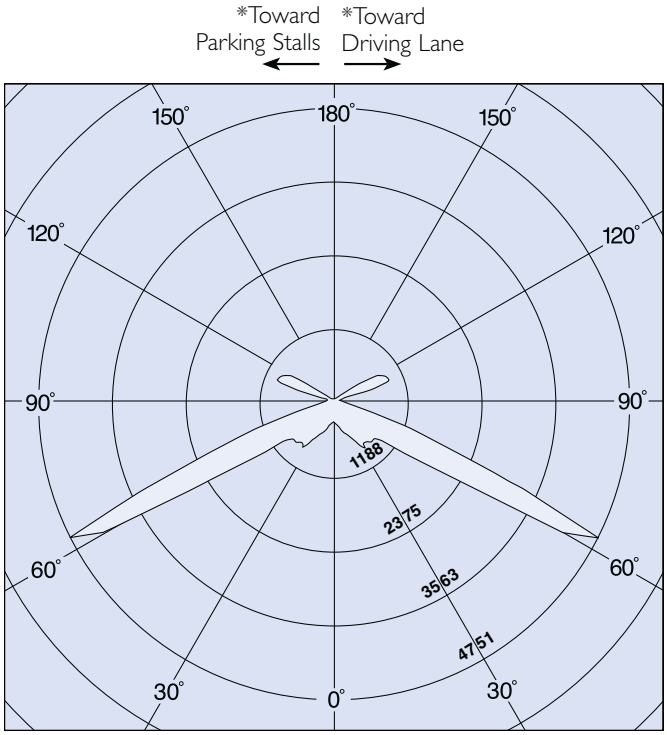
Two luminaires per bay at 30' apart, 30' spacing – staggered, 30' by 30' down the center of bay

Mounting Height To Luminaire Aperture	No Interreflectance					40% Ceiling Interreflectance				
	Avg	Max	Min	Avg/ Min	Max/ Min	Avg	Max	Min	Avg/ Min	Max/ Min
7'	5.22	9.86	2.17	2.41	4.54	5.73	10.84	2.34	2.45	4.63
8'	5.21	8.87	2.70	1.93	3.29	5.71	9.75	2.89	1.98	3.37



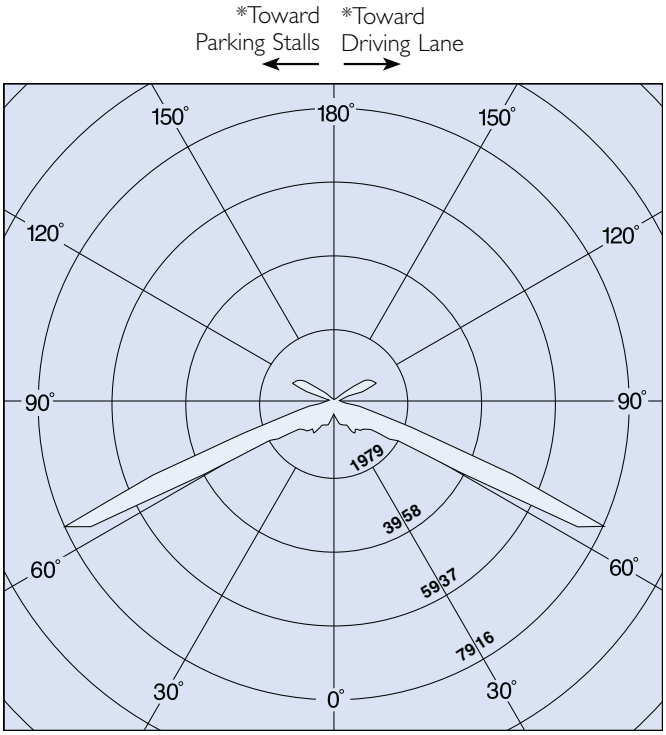
CANDLEPOWER VALUES

90CMPE (10,450 initial lumens)



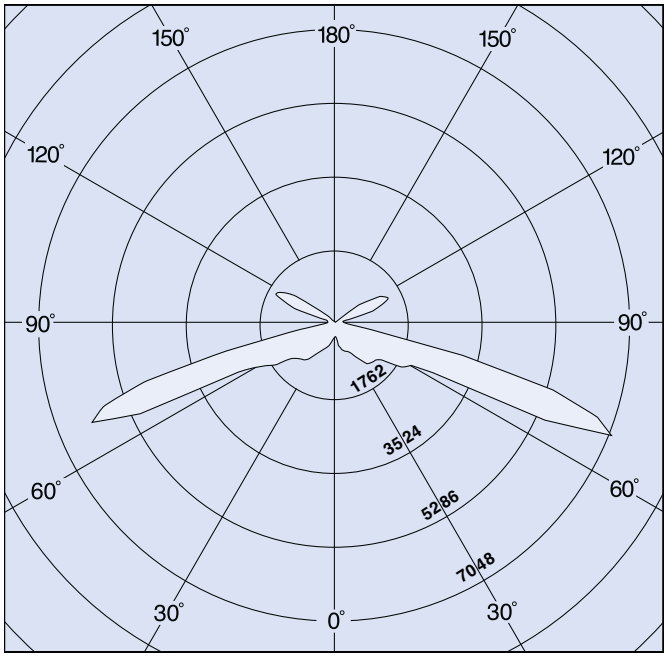
*Oriented for single luminaire per bay design.

150PSMH (14,000 initial lumens)



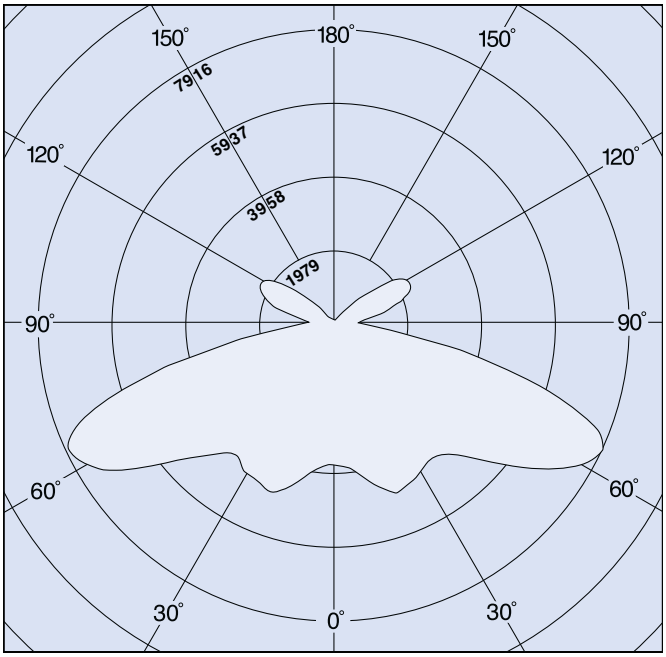
*Oriented for single luminaire per bay design.

150HPS (16,000 initial lumens)



*Oriented for single luminaire per bay design.

85QL (6,000 initial lumens)



*Oriented for single luminaire per bay design.

SPECIFICATIONS

GENERAL
The Gardco GP1 is a high performance garage luminaire with a variety of lamping options: the CosmoPolis™ Electronic System at 60w or 90w; medium base HID lamps to 200w; compact fluorescent lamps at 60w or 85w; or 85w induction lamps. Units are totally sealed and suitable for damp and wet locations.

QUICK MOUNT PLATE
A die formed 14 ga. galvanized steel plate is supplied for mounting to a recessed, surface, or rigid pendant hung 4"/10.16 cm J-box (standard J-box and rigid pendant by others). An integral hanger tab on the plate supports the luminaire during wiring.

UPPER ELECTRICAL CANOPY
The die cast aluminum canopy houses the ballast and wiring splices. After wiring, the canopy swings up and attaches securely to the Quick Mount Plate.

HOUSING
The housing consists of a one-piece acrylic housing with prismatic uplight window and opaque lower side section. The housing is fully gasketed to the upper canopy.

DOWNLIGHT REFLECTOR
Semi-specular metalized aluminum facets are precisely positioned to provide highly efficient Type 1R (rectangular) lighting distributions and cutoff of source brightness at normal viewing angles.

UPLIGHT REFLECTOR
The hydroformed and anodized aluminum reflector generates illumination on the ceiling and vertical surfaces.

DOWNLIGHT LENS
An injection molded UV resistant acrylic lens is retained with captive fasteners. The lens hinges down for relamping. Memory retentive silicone gasketing seals the lens to the housing.

ELECTRICAL
High power factor magnetic HID ballasts are separate component type. All HID ballasts are capable of providing reliable lamp starting down to -20°F/-29°C. Luminaires supplied with electronic metal halide ballasts will operate Ceramic Metal Halide lamps only.

For luminaires provided with CosmoPolis™, each high power factor ballast is electronic, designed specifically for the CosmoPolis™ high performance ceramic metal halide electronic sytem.

Component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600 VAC at 301°F/150°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher.

Fluorescent luminaires feature high power factor electronic ballasts standard. Ballast accepts 60w and 85w compact fluorescent lamps.

THE QL INDUCTION LIGHTING SYSTEM
The QL lamp system consists of three main components, each of which can be replaced separately if service is required.

The vessel or discharge bulb is a closed glass bulb containing a low-pressure inert gas filling with a small amount of mercury vapor. The walls of the vessel are internally coated with a fluorescent powder of any of the modern three-line phosphor types, providing a choice of color temperatures. The discharge vessel is fixed to the power coupler by the plastic lamp cap with the click system.

Additional parts of the power coupler include a plastic antenna support, a 40 cm coaxial connecting cable, and a heat conducting rod with mounting flange. The mounting flange allows the QL lamp system to be mechanically attached to the luminaire, and removes waste heat to a heat sink which forms part of the luminaire.

The HF generator produces the 2.65 MHz alternating current supply to the antenna.

EMERGENCY LUMINAIRES
All emergency luminaires feature an indicator light visible through the lens and a test switch accessible through the door assembly. All emergency luminaires are factory wired from the battery pack to the luminaire using a 24" length flexible conduit. Emergency luminaires are 100% factory tested in emergency mode. Battery packs must be suitably mounted to structure. Emergency battery packs must be included on the factory luminaire order and supplied by Gardco.

GP1EMR LUMINAIRES
Require the I-160-DL and T5S-55 or T5ST-55 options. In the event of a power interruption, the I-160-DL will power one (1) 55w T5/HO circular fluorescent lamp for 90 minutes providing 2,700 lumens initial emergency mode light output.

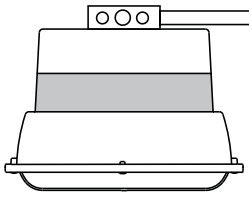
GP1ECR LUMINAIRES
Require the B4CF2 and the T5S-40 or T5ST-40 options. In the event of a power interruption, the B4CF2 will power one (1) 40w T5 circular fluorescent lamp for 90 minutes providing 1,000 lumens initial emergency mode light output.

FINISH
The upper canopy is finished with polyester powdercoat. The opaque housing section is finished with acrylic lacquer. Concrete Grey finish is standard.

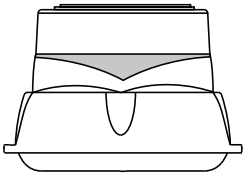
LABELS
All GP1 luminaires bear UL or CUL (where applicable) Wet Location labels. All GP1EMR and GP1ECR luminaires bear UL or CUL (where applicable) Damp Location labels.

WARRANTY
Gardco luminaires feature a 5 year limited warranty. See Warranty Information on sitelighting.com for complete details and exclusions. Polycarbonate lenses carry a 1 year warranty only.

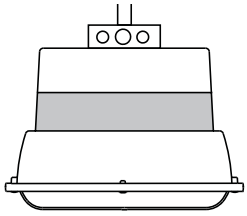
MOUNTING OPTIONS



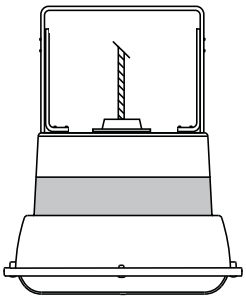
Flush or surface mounting is easily accomplished with a galvanized steel quick-mount plate (standard J-box by others).



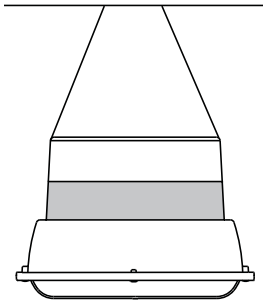
The DR (Downlight Only Reflector) option provides an additional spun aluminum lower reflector, which will significantly increase pavement illumination and mask any undesired uplight.



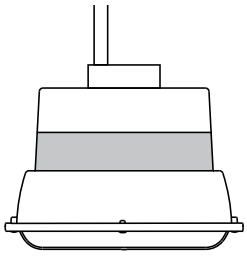
For rigid pendant mounting to conduit (by others), the Gardco quick-mount plate is directly attached to a standard 4" (10.16cm) J-box, as in surface ceiling mounted applications.



The "TM" trunnion mounting option is designed to mount to a concrete ceiling with a die formed, anodized aluminum trunnion bracket assembly. The assembly permits six (6) 1" (2.54cm) incremental mounting height adjustments. A 1/2" (1.27cm) I.P.S. weatherproof die cast aluminum hub is located on the top pan for field attachment of rigid or flexible conduit (by others).

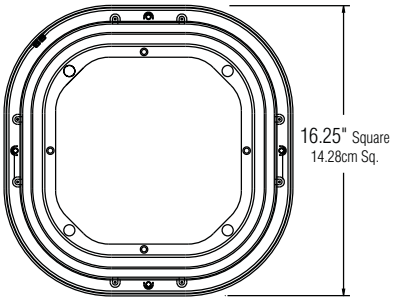


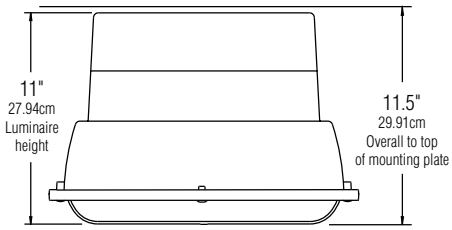
Practical options include a bird-excluding shroud, which prevents nesting and perching, reducing dirt and maintenance. A 12" (30.48cm) minimum pendant length is required.



An offset, self-leveling J-box balances the luminaire in those cases where the pendant mount is free-swinging. (Swivel ceiling canopy and pendant by others.) For this option, specify "JB" when ordering.

DIMENSIONS





Prior to ordering, consult Submittal Data Sheet on sitelighting.com for the most current information, notes and exclusions.

Philips Gardco reserves the right to change materials or modify the design of its product without notification as part of the company's continuing product improvement program.

GP1 ORDERING

	PREFIX	WATTAGE	VOLTAGE	OPTIONS
Example	GP1	90 CMPE	120	POLY

GP1[1]
Garage Luminaire

GP1EMR[1,10,12]
Emergency Remote
(0°C, 32°F minimum ambient temperature.)

GP1ECR[1,11,12]
Emergency Cold Temperature Remote
(-18°C, 0°F minimum ambient temperature.)

Pulse Start MH Magnetic Ballast	**70MH**	**150MH**	**200MH**[1] Ⓔ
	100MH	**175PSMH** Ⓔ	
Ceramic MH Electronic Ballast	**70CMHE**[3,4]	**150CMHE**[3,4] Ⓔ	
CosmoPolis™ Electronic System	**60CMPE**[15]	**90CMPE**[15]	
Compact Fluorescent Electronic Ballast	**60/85CF**[2,3,4,7]		
Standard MH Magnetic Ballast*	**175MH***		
High Pressure Sodium Magnetic Ballast	**175MH**	**150HPS**	
	100HPS		

* 175MH not available for sale in the United States.

Ⓔ *Wattages marked with Ⓔ meet federal energy efficiency standards applicable to 150 watt through 500 watt metal halide luminaires only.*

120
208
240
277
347
UNIV[5]
200-277[14]

GP1EMR and **GP1ECR** *Emergency luminaires are only available with 120V or 277V input.*

QS[5,9,17] Quartz Standby
QST[5,9,16] Quartz Standby - Timed Delay
Q924[5,9,17] Quartz Emergency
QT924[5,9,16] Quartz Emergency - Timed Delay
T5S-40[7,9,17] Provision for an internal hot restrike standby, circular 40w T5 fluorescent lamp
T5ST-40[7,9,17] Provision for an internal hot restrike standby, timed delay, circular 40w T5 fluorescent lamp.
T5S-55[7,9,17] Provision for an internal hot restrike standby, circular 55w T5/HO fluorescent lamp
T5ST-55[7,9,17] Provision for an internal hot restrike standby, timed delay, circular 55w T5/HO fluorescent lamp
POLY[8] Polycarbonate Downlight Lens
TP Spanner Head Tamper Resistant Screws
F Fusing
DR[6] Supplementary Downlight Reflector
BX Bird Excluding Shroud *For pendant mounted units.*
JB Balanced J-box with offset knock-out *For non-rigid sway pendant mount.*
LFI Lamp factory installed
IRS[13] Instant Restrike
TM Trunnion Mount
WG Wire Guard *Can be field installed.*

Emergency Luminaires Only
I-160-DL[12] Iota I-160-DL Emergency Battery Pack *GP1EMR with T5S/ST-55 only.*
B4CF2[12] Bodine B4CF2 Emergency Battery Pack *GP1ECR with T5S/ST-40 only.*

1. *The GP1 is supplied standard in Concrete Grey finish only.*
2. *Luminaire accepts either 60w or 85w Compact Fluorescent.*
3. *Electronic Fluorescent and CMHE ballasts accept 120V through 277V input. Specify "UNIV" for Voltage.*
4. *Not available in GP1EMR or GP1ECR. Not available with QS, QST, Q924, QT924, T5S-40, T5ST-40, T5S-55, or T5ST-55 options.*
5. *DC Bayonet Base, 100 watt quartz maximum.*
6. *HID only. Not available with T5S-40, T5ST-40, T5S-55 or T5ST-55. Provides additional area illumination and masks uplight.*
7. *Not available with DR option. Not available in 60CMPE or 90CMPE.*
8. *Polycarbonate lenses carry a 1 year warranty only.*
9. *Luminaires are not available with more than 1 of the following options: QS, QST, Q924, QT924, T5S-40, T5ST-40, T5S-55, T5ST-55.*
10. *Requires T5S-55 or T5ST-55, and I-160-DL options.*
11. *Requires T5S-40 or T5ST-40, and B4CF2 options.*
12. *Available in HID 175 watt and below with magnetic ballasts, 120V or 277V input only. Emergency battery packs must be included on the factory order and supplied by Gardco. I-160-DL and B4CF2 options include a 24" length flexible conduit factory wired from the battery pack to the GP1 luminaire. Battery packs must be suitably mounted to structure. GP1EMR and GP1ECR luminaires bear UL or CUL (where applicable) Damp Location labels only.*
13. *HPS only. Not available in GP1EMR or GP1ECR. Contact factory prior to ordering.*
14. *200 through 277V, 50hz to 60hz, input. Available in CMPE types only.*
15. *Available in 120V or 200-277V only.*
16. *60CMPE and 90CMPE available with QST and QT924 Options.*
17. *Not Available in 60CMPE and 90CMPE.*

INDUCTION LAMP

	PREFIX	WATTAGE	VOLTAGE	OPTIONS
Example	GP1	85QL/830	120	POLY

GP1
Garage Luminaire
The GP1 is supplied standard in Concrete Grey finish only.

85QL/830
85 watt QL/3000°K
85QL/840
85 watt QL/4000°K

120
200-277[18]

18. Accepts input voltages from 200V through 277V.

POLY Polycarbonate Downlight Lens *Polycarbonate lenses carry a 1 year warranty only.*
TP Spanner Head Tamper Resistant Screws
JB Balanced J-box with offset knock-out *For non-rigid sway pendant mount.*
BX Bird Excluding Shroud *For pendant mounted units.*
TM Trunnion Mount
WG Wire Guard *Can be field installed.*

1611 Clovis Barker Road
San Marcos, TX 78666
512/753-1000
800/227-0758
Fax: 512/753-7855
sitelighting.com

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

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