

OUTDOOR LIGHTING

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District Sales Manager
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Why LED?



PHILIPS

ADVANCMENTS IN TECHNOLOGY

Remember when your phone
was just a phone?



ADVANCMENTS IN TECHNOLOGY

Today's smart phone what do you have?



- Phone
- Stereo
- Camera
- Video Recorder
- Calculator
- GPS
- Computer
- Messaging Center (text, emails)
- Apps (Unlimited)
 - Video Games
 - Flash Light
 - Alarm Clock
 - Find your car
 - Find your phone

ADVANCMENTS IN TECHNOLOGY

Today's lighting is now part of the digital age. Solid State Lighting



WHY LED?

Energy Savings

- 50% or more compared to HID

Color Choices (Not available in HID)

- 3k, 4k, 5k, Amber (Turtle), RGB

Reduced maintenance/longer life

- 70k – 100k hrs L70 typical
- 20k -30k hrs HID

Better control of light (Internal shielding)

- Reduced spill light
- Reduced up light (Dark skies)

More options (Not available in HID)

- Drive current options control amount of light and/or energy consumed
- Dimming, Connected Systems



High Intensity Discharge
Lamp

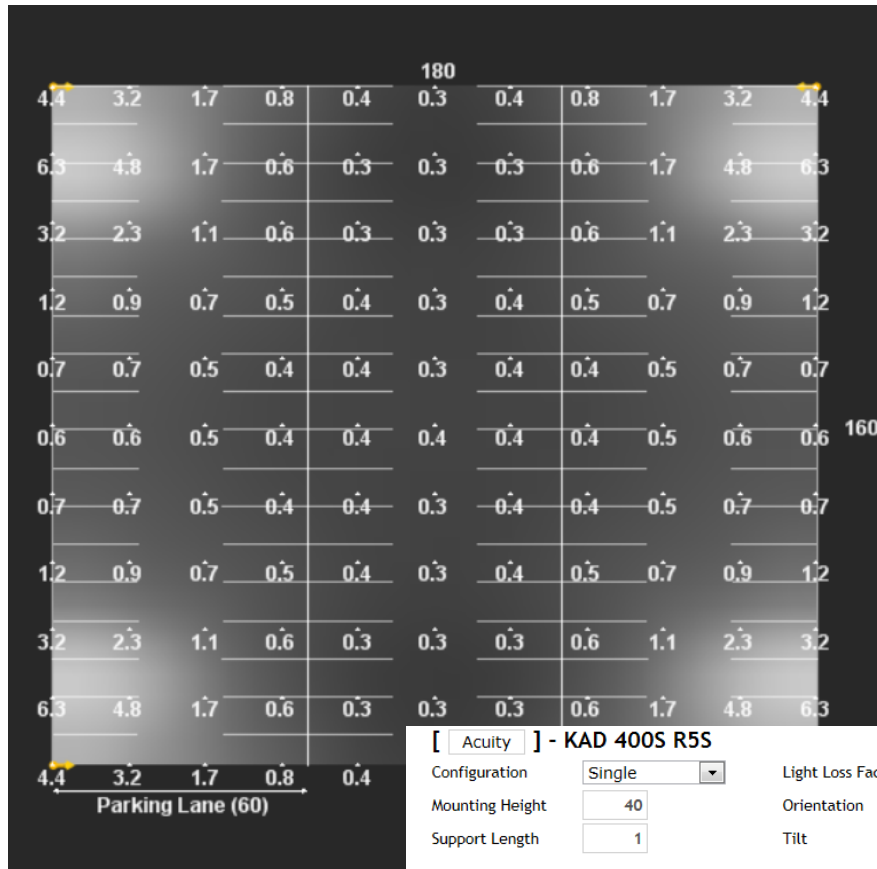


Light Emitting Diode
Light Engine (module)

LED Performance Comparison

Typical HID Shoebox – 50,000 lumens, 468 watts

HID: 400 HPS, 180 ' x 160' pole spacings, 40' mounting height



Spacing Results [Acuity]

Spacing 180 x 160 ft
 Area Between Poles 28,800 ft²
 Wattage / Area 0.07 W/ft²
 Optional Spacing

Calculation Results [Acuity]

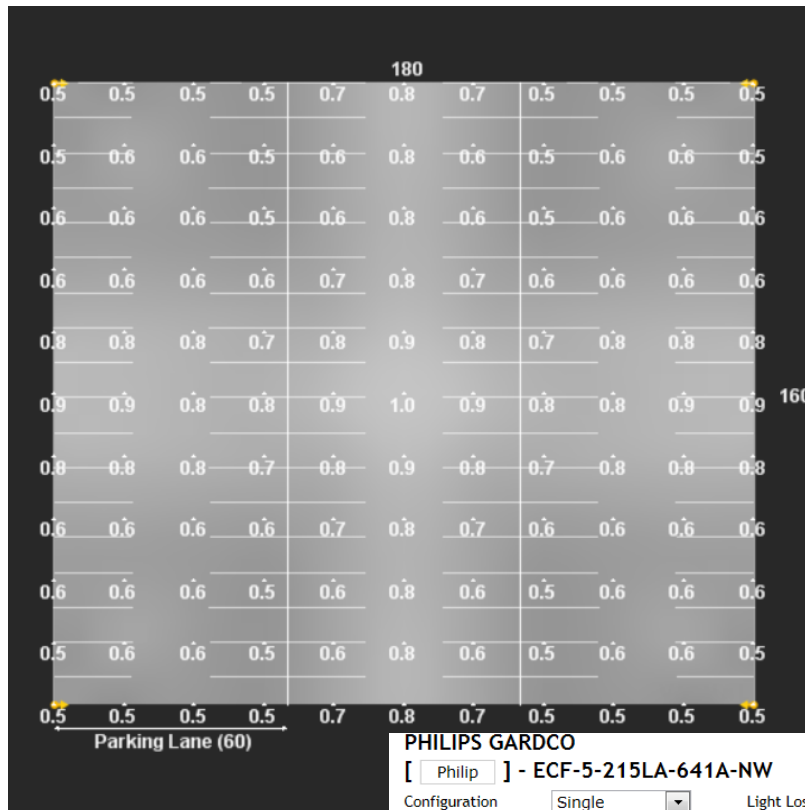
Minimum 0.3 fc
 Average 1.3 fc
 Maximum 6.3 fc
 Max/ Min 24.2
 Ave/ Min 5.1
 Point Spacing 18.0 x 16.0 ft
 iterations 1
 Points Calculated 1,082

Hot spots underneath the pole.
 Terribly uniformity.

0.77	Lamp Quantity	1
0	Lumens Per Lamp	50000
0	Wattage	468

Gardco – EcoForm 19,885 lumens, 210 watts

LED: 4000K, 180 ' x 160' pole spacings, 40' mounting height



Spacing Results [Philip]	
Spacing	180 x 160 ft
Area Between Poles	28,800 ft ²
Wattage / Area	0.03 W/ft ²
Optional Spacing	
Calculation Results [Philip]	
Minimum	0.5 fc
Average	0.7 fc
Maximum	1.0 fc
Max/ Min	2.1
Ave/ Min	1.4
Point Spacing	18.0 x 16.0 ft
iterations	1
Points Calculated	1,082
Display	
Points	<input checked="" type="checkbox"/>



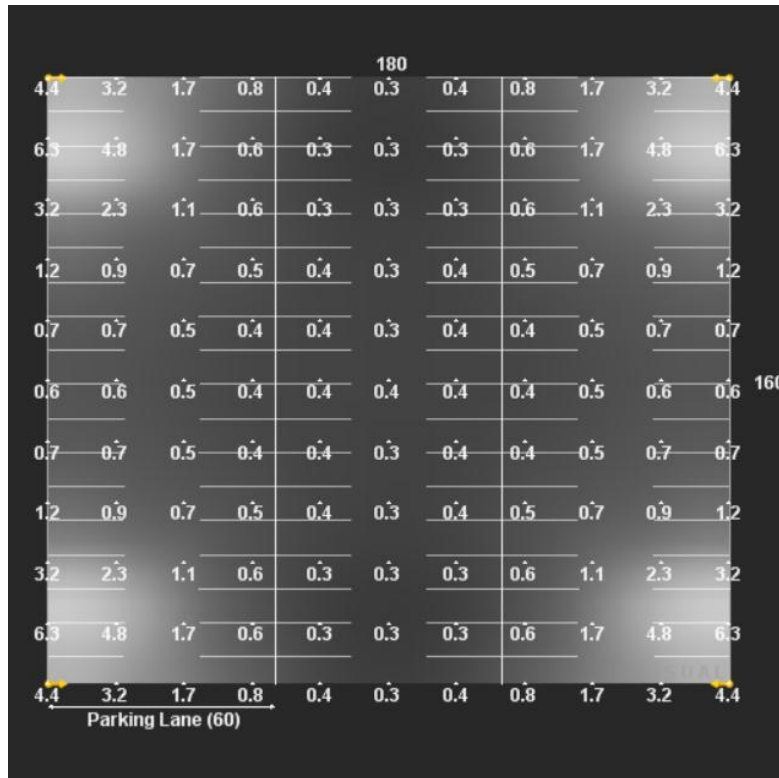
PHILIPS GARDCO			
[Philip] - ECF-5-215LA-641A-NW			
Configuration	Single	Light Loss Factor	0.95
Mounting Height	40	Orientation	0
Support Length	1	Tilt	0
		Lamp Quantity	1
		Lumens Per Lamp	19885
		Wattage	210.3

Great uniformity.
Appear brighter, even
with lower “average”.

HID vs LED

Not an issue of lumens, it's an issue of distribution & light control

HID (400 HPS)



1.3 fc average, **24.2 max/min ratio**

Gardco Ecoform LED



.7 fc average, **2.1 max /min ratio**

THE SHAPE OF THINGS TO COME
IS HERE TODAY

No longer restricted by Form Factor based on lamp size.



Traditional "Shoebox"



Traditional "Acorn"



PureForm – Purity in Form

Designed around LED technology

Gardco PureForm Defines...LED technology in its purest form.



MetroScape & UrbanScape Pendant and Post Top Version



UrbanScape
Pendant MSC



MetroScape
Pendant MSR



UrbanScape
Post-Top MPTC



MetroScape
Post-Top MPTR



SlenderForm Can Unify an Entire Site!

Solutions from the same family across multiple applications

Area Lighting



Wall Mount



Pedestrian Scale



Canopy

LytePro LED Floodlights...(LPF)

A perfect blend of design, performance and value

Philips Stonco stays true to its heritage by providing contractor friendly products in a family of luminaires with the quality and performance you expect from a Philips Stonco product. The Philips Stonco LytePro LED Floodlight (LPF) is available in 4 sizes, each with its own unique offering of mountings, optics and options that provides a high level of flexibility from a value based line, suitable for a myriad of projects.



LPF1
20W
1,773 lumens



LPF2
40W
3,460 lumens



LPF3
85W
7,012 lumens



LPF4
105W
9,191 lumens

ClearScape – Lower Profile (Coming in December)



Florida Fish & Wildlife

Philips Lighting

Turtle Friendly
FWC Certified



Approved now, website November
All others in submittal process with
FWC



Pureform P21



SlenderForm Arm
Mount



SlenderForm Round
Arm Mount



EcoForm



LED Area ELA



G3 LED Garage
Luminaire



QLP LED Parking
Garage



RX180



RoadView (RVS)



Full Cutoff Bollard
LED



121 LED Sconce



101L LED Sconce



102 LED Sconce



104 LED Sconce



106 LED Sconce



Domus (DMS50)

Solar Lighting

System Overview



Features

Benefits

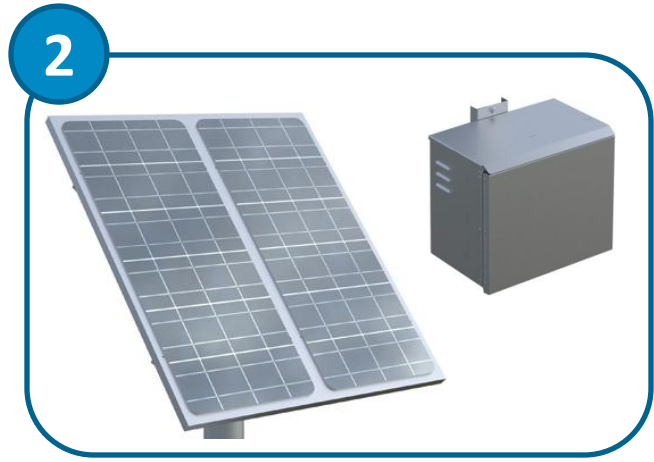
<p>Powered by the sun</p>	<ul style="list-style-type: none"> • Lowers electrical bills to expedite your return on investment. • Meets requirements for most utility rebates and energy incentives.
<p>Stand-alone system</p>	<ul style="list-style-type: none"> • Self-sufficient, autonomous, and grid-independent. • Requires no additional power or existing electrical infrastructure.
<p>Ease of installation</p>	<ul style="list-style-type: none"> • Requires no additional wiring, transformers or additional trenching. • Minimal site disruption saves time and money.
<p>Many lighting profiles available</p> <ul style="list-style-type: none"> - Dusk to Dawn Profiles - Hourly Profiles - Hourly Dimming Profiles, available with Motion Response 	<ul style="list-style-type: none"> • Configured and optimized around your location to maximize potential. • Provides optimal and most efficient lighting solution based on your illumination needs, even after enduring up to five dark days. • Ensures that your system will be powered on when you need it.
<p>Compatible with Philips LED Site and Area luminaires (a complete selection available on page 5.)</p>	<ul style="list-style-type: none"> • Five different luminaires ranging from architectural to economic general purpose to provide choices based on performance or aesthetic. • Luminaires are designed with the latest in energy saving LED technology, allowing you to maximize the use of solar energy. • Excellent thermal management systems ensure longevity. • Philips site and area luminaires are designed for optimum performance with maximum output ranging from 3,054 to 8,798 lumens.
<p>One Philips Solar Lighting System</p>	<ul style="list-style-type: none"> • The complete lighting system is designed and manufactured by Philips Lighting: Charge Controller, Solar Controller, Solar Driver, and Solar luminaires. • All Philips components are backed by our limited warranty*

System Overview

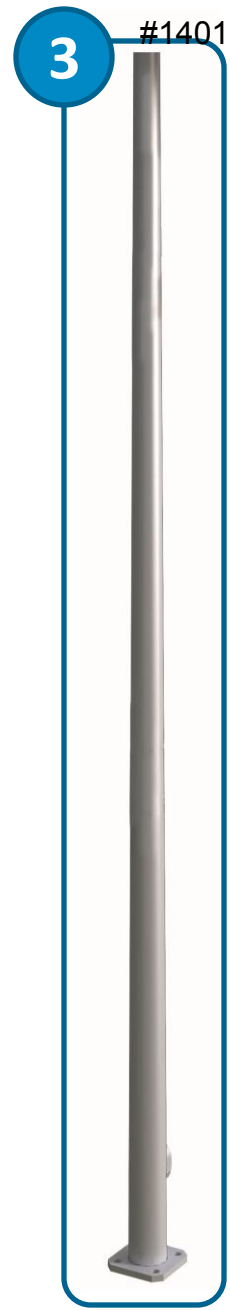
- The Site and Area Solar Solution consists of three main parts:



Luminaire



Solar Components



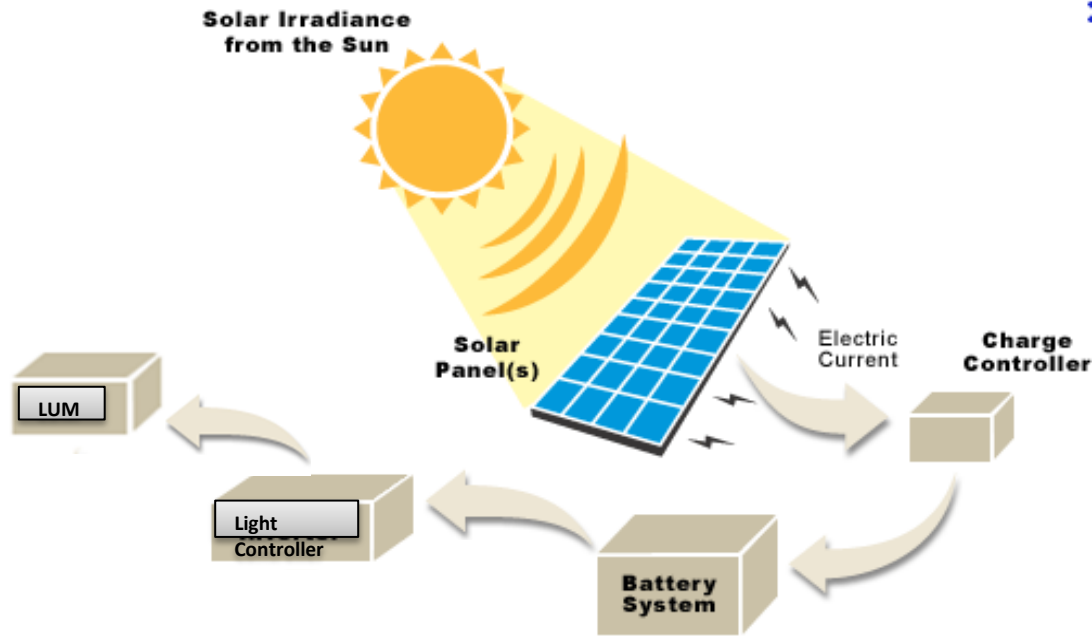
Solar Pole

Site & Area Luminaire Availability

- PureForm Solar
- EcoForm Solar
- Gullwing LED Solar
- AeroScape Solar
- ELA Solar









How the system works



Philips Roadway

Roadway Product Positioning

Architectural	RoadStar GPLS & GPLM 70-250W “equivalent”	
Roadway/Area	RoadView RVS & RVM 70-400W “equivalent”	
	RX1 & RX2 70-400W “equivalent”	
Roadway	RoadFocus 70-400W “equivalent”	
	StreetView SVM 50-250W “equivalent”	
	MiniView SVS 70-100W “equivalent”	

RoadFocus – LED Cobrahead (Coming in December)

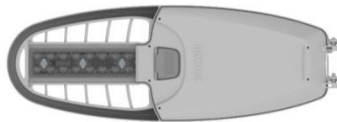


1 to 7 LEDgines \approx 70-400W HID Performance



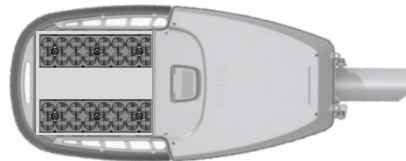
Small version

1 Board – 16 LED's – 70W "equivalent"

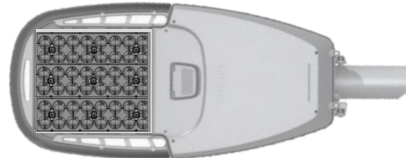


Medium version

2 Boards – 32 LED's – 100W "equivalent"

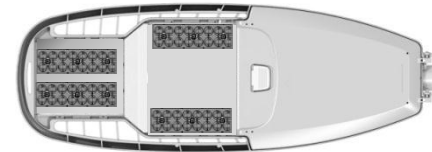


3 Boards – 48 LED's – 150W "equivalent"

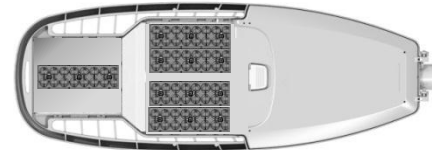


Large version

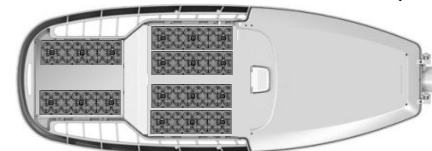
4 Boards – 64 LED's – 200W "equivalent"



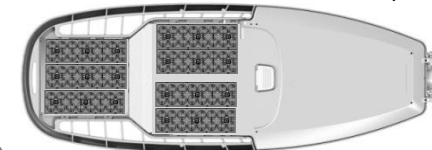
5 Boards – 80 LED's – 250W "equivalent"



6 Boards – 96 LED's – 400PSMH "equivalent"



7 Boards – 112 LED's – 400HPS "equivalent"



*NOTE:
Products shown are not to scale to enable all to fit on one page. Type III optics.*

Connected Lighting Solutions

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Connected Street Lighting – TWO OPTIONS

Option 1: *Starsense RF (MESH)* Option 2: *Direct connected node*

Customer needs

To monitor and control the amount of light at the right place at the right time and provide energy and maintenance savings

Highways



Roads



Areas



Streets



1.

Starsense Wireless



- Monitor/control of **individual** fixtures
- Works with magnetic ballasts and LED drivers
- Communications scheme is MESH, self-healing

2.

CityTouch Connected Node



- Monitor/control of **individual** fixtures
- Each node connects directly to the server using cell phone network. No need for Segment Controllers
- Added to this, the GPS enabled device removes the need for any field commissioning works, or on site expertise.

The Three Key Benefits

- Improved Safety & Quality
- Decreased Maintenance Costs
- Sustainability



Benefits for a municipality/road authority of a Lighting Management System



- Increased safety in streets
- Real-time feedback on status
- Accurate metering of the energy used
- Green image
- Reduced energy cost
- Reduced CO₂ footprint
- Reduced light pollution
- Flexibility to adapt lighting levels

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Benefits for a maintenance/installation department



- Automatic reporting of failures
- Asset management of lighting infrastructure
- Repair activity- planning and reporting
- Accurate reporting of lamp-burning hours
- Optimized maintenance planning

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Features | Daily Operation (1/2)



The screenshot displays the CityTouch web application interface. At the top, there is a navigation bar with the CityTouch logo, a user profile, and a dropdown menu. Below this is a map of Cleveland, Ohio, with numerous yellow dots representing street lights. On the left, a 'NAVIGATION' panel shows a tree view of regions: Washington, North East, North West, South East, South West, and Unknown Region. On the right, a 'STREET LIGHT' panel is open, showing details for a selected light. The panel has two tabs: 'Properties' and 'Communications Path'. The 'Properties' tab is active, displaying the following information:

STREET LIGHT	
Properties	Communications Path
citytouch id	200000188
name	15-UP_34877
lamp	Default
dist	Out_Peak
is managed	EDISON_2015
is managed	7146

At the bottom right of the map, a blue callout box contains the following text:

- Daily operation
- Intuitive map interface
- Entire installation in one view
- Quick information retrieval
- Live data!



Features | Dimming



The screenshot displays the Philips CityTouch interface. At the top, there's a navigation bar with the CityTouch logo, a search bar, and user options like 'Demo_Others', 'Preferences', 'Help', and 'Sign Out'. Below this is a map showing a street grid with various colored markers (yellow and red) indicating light levels or status. A 'NAVIGATION' sidebar on the left lists directions: Washington, North East, North West, South East, South West, and Unknown Region. On the right, a 'CONTROL SYSTEMS' panel includes a 'Simulator' button and 'Actions' for available actions. In the foreground, two overlapping windows show dimming control options. The left window, titled 'Overview for Energy Saving Calendar', features a bar chart and a table of dimming levels. The right window, titled 'Overview for Energy Saving Calendar', shows a grid of dimming levels for different days and times. A blue text box in the bottom right corner contains the following text:

Dimming
Flexible dimming schedules
Light tailored to usage
Realizing energy savings
Pre-configure light levels for events

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We run more than 250 projects in 27 countries worldwide

