**HUBBELL** Lighting

# MATRIX®



**BEACON**
design . performance . technology

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design . performance . technology

**HUBBELL** Lighting

# MATRIX®

**One Product Family** multiple configurations, Matrix optimizes performance, flexibility, output, efficiency and value. Offered in four mounting options, Matrix is ideal for high mounting height applications such as large parking areas, retail centers, distribution centers and perimeter lighting. Outputs begin at 30,000 lumens with maximum output exceeding 60,000 lumens.

**Beacon Products' exclusive Strike Optics for Matrix** deliver category leading performance. By maximizing target efficiency, Matrix ensures simple layout design that is high in uniformity and minimal in light trespass. This control reduces energy consumption, lowers installation costs, and improves visual acuity.

**Advanced luminaire design** separates Matrix from other area and site products. Matrix is designed for sustained, long-term performance with advanced thermal management, an elegantly simple heat sink and industry leading surge protection.

**SiteSync™ and Energeni integrated controls** provide outstanding performance with an exceptional value. Pre-commissioned and simple to use, Matrix controls give the most novice of users the ability to create robust control schedules for maximized energy savings.

APPLICATIONS

HIGH MOUNTING HEIGHT

LARGE SITE

PERIMETER FLOOD

# MATRIX®

## PERFORMANCE
## VALUE
## FLEXIBILITY

Matrix combines superior luminaire design with excellent versatility, performance and value. Standard and specialty distributions make the Matrix the choice for high lumen, high mounting height applications with outputs exceeding 60,000 lumens. This enables higher foot candle averages and improves uniformity compared to legacy 1000 watt HID systems. Control options featuring **SiteSync™**, Energini, and occupancy controls enable optimum energy-savings and customization.

Upswept Arm      Post Top      Knuckle      Mast Arm

# AREA/SITE

Matrix flood with knuckle for large area applications. These luminaires are designed as direct replacements for 750 to 1000 watt HID luminaires with beam spreads to meet a variety of floodlighting requirements.

# FLOOD

# MATRIX®

## STRIKE OPTICS
**Precision Wins.**

### Matrix Strike Optic

Wide, squared off corners simplify layout design and greatly improve uniformity by reducing contrast in transition zones from one luminaire to the next

Even distribution of intensity improves visual acuity

Wider illumination at the curb line allows for increased pole spacing: reducing material, installation, and operating costs

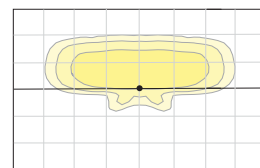Low percentage of spill light at house side saves energy and reduces light trespass issues.
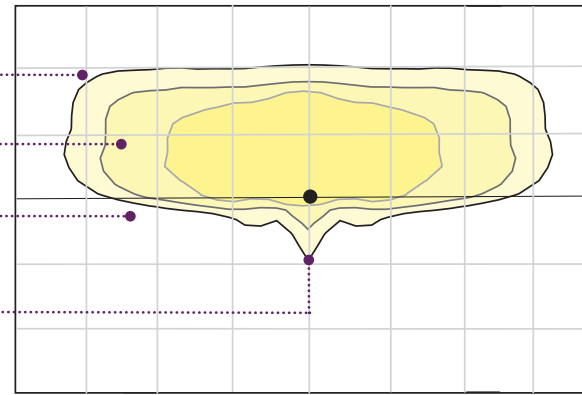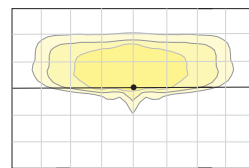
Type 3

## AREA

**Strike Optics** - Superior Control, Outstanding Efficiency.
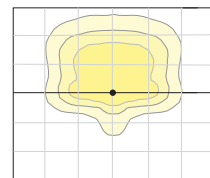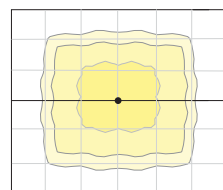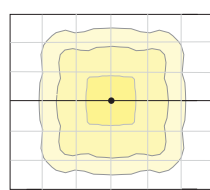
Type 2          Type 3          Type 4

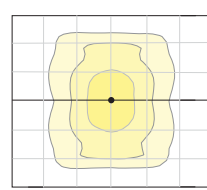**Symmetric Distributions** - Flexibility in Application.

Type 5QW          Type 5QM          Type 5R

## FLOOD   Beam Spread
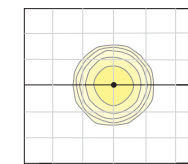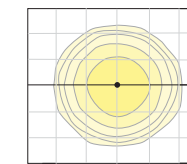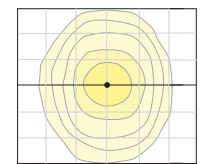
2x2          4x4          6x6

## SPECIALTY OPTICS   Automotive Front Row and Tennis Court

**Front Row Applications**
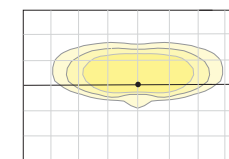
Type FR

The front row optic provides maximum illumination and performance for highlighting dealership inventory and merchandising the "Front Row." The modern car dealership has evolved and so has lighting it.

- Maximum illumination specifically targeting the front row display
- Tremendous "house side" cutoff behind the pole to maximize the impact of front row merchandise and minimizes light trespass to adjoining properties
- Excellent lateral spread to increase pole spacing

**Tennis Court Applications**
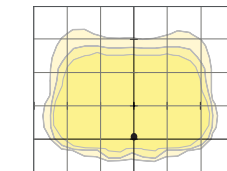
Type TC

Specifically designed to enhance player and spectator experience in athletic venues, such as tennis courts and other specialty sport applications.

- Provides maximum illumination specifically targeting the court area
- Excellent uniformity and light levels

# MATRIX®

## INTEGRATED CONTROLS

**SiteSync™** delivers flexible control options for reducing power consumption and minimizing maintenance costs while delivering the right light levels with a simple and affordable wireless solution.

**ENERGENI** lighting control is a simple way for owners to save money by dimming the fixtures during unoccupied hours. **ENERGENI** has flexible setting options to work with fixtures activated by photocontrols or time clocks. The delay and dimming level options can be configured at the factory or reconfigured at will in the field without the need for special cables or computers.

### Occupancy Sensors
Sensors control light output based on area utilization. Use for energy savings and local code compliance.
(see control options)

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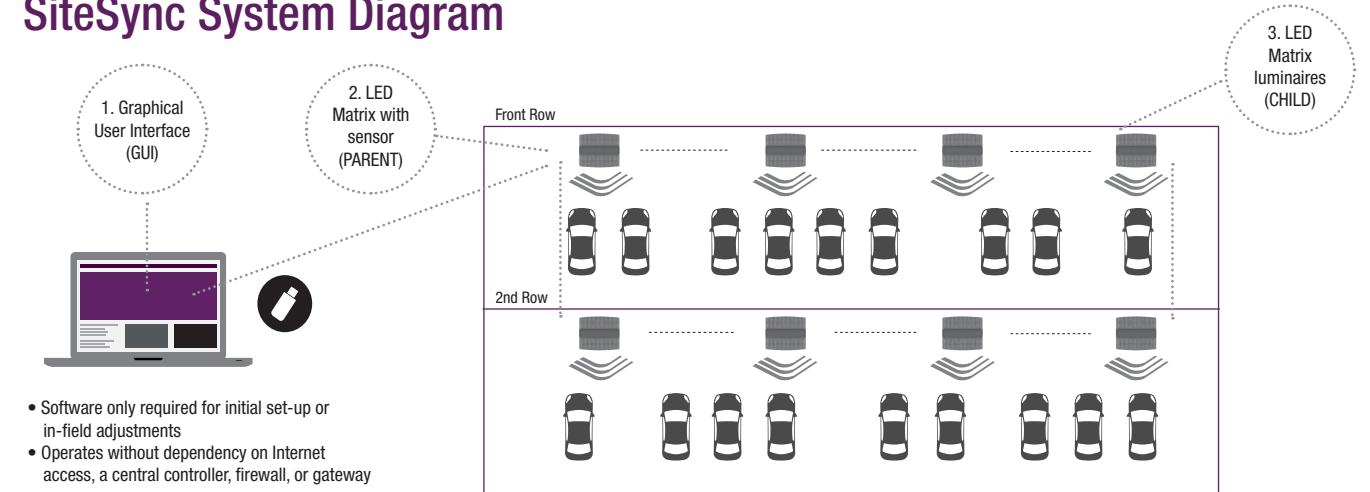**Simple, Reliable and Affordable**...With SiteSync's pre-programmed approach, installation becomes a quick and easy process, greatly reducing the complexity, time, and cost compared to typical field commissioning.

SiteSync is based on a wireless mesh network architecture that enables luminaries to operate independently without the need for web based connectivity. This provides a cyber safe platform that delivers reliable communication and control versus other gateway based systems. With a complete offering of Hubbell Lighting site and area, decorative, garage, wall, and flood LED luminaries available with SiteSync, you have the flexibility to create an intelligent outdoor lighting package that will meet a wide variety of application needs.

## SiteSync System Diagram

1. Graphical User Interface (GUI)
2. LED Matrix with sensor (PARENT)
3. LED Matrix luminaires (CHILD)

Front Row

2nd Row

• Software only required for initial set-up or in-field adjustments
• Operates without dependency on Internet access, a central controller, firewall, or gateway

**FOR MORE INFO:** www.hubbell-automation.com/products/sitesync/

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## Energeni

ENERGENI has flexible setting options to work with fixtures activated by photocontrols or time clocks. The delay and dimming level options can be configured at the factory or re-configured at will in the field without the need for special cables or computers.

### SETTING OPTIONS
ENERGENI has 32 pre-programmed functional settings that can be selected with its five DIP switches. The combination of switch settings allows for options of set dimming, timed dimming with a simple delay or timed dimming based on hours of operation or time at night.

### SET DIMMING
The set dimming option allows for a pre-set dimming level that occurs immediately after turning on the fixtures. This setting is ideal for applications where you want the flexibility to adjust light levels after installation.

### DIMMING BASED ON TIME OF NIGHT
For applications looking for set dim level at night due to local code requirements or business operation, ENERGENI can be set to dim at approximately the same time each evening.

### DIMMING BASED ON HOURS OF OPERATION
For applications that may want the lights to burn for a set number of hours, the ENERGENI can be set to dim after a fixed time has passed. Multiple delay and brightness options are available.

**FOR MORE INFO:** http://cdn.beaconproducts.com/content/products/literature/literature_files/energeni_brochure_web.pdf

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## Occupancy Sensors
Controls in area/site applications save energy, extend luminaire life and allow customizable solutions.

### SCP
• Programmable occupancy sensor with wireless configuration (ordered separately)
• Includes Photocontrol functionality
• Wide lens available
• For mounting heights up to 40 ft.

### WSP
• Occupancy sensor with photocontrol functionality included
• High voltage 347-480V applications
• For mounting heights up to 40 ft.

### SCL
• Low voltage occupancy sensor for use with external control systems enabled via 7 pin receptacle (7PR)
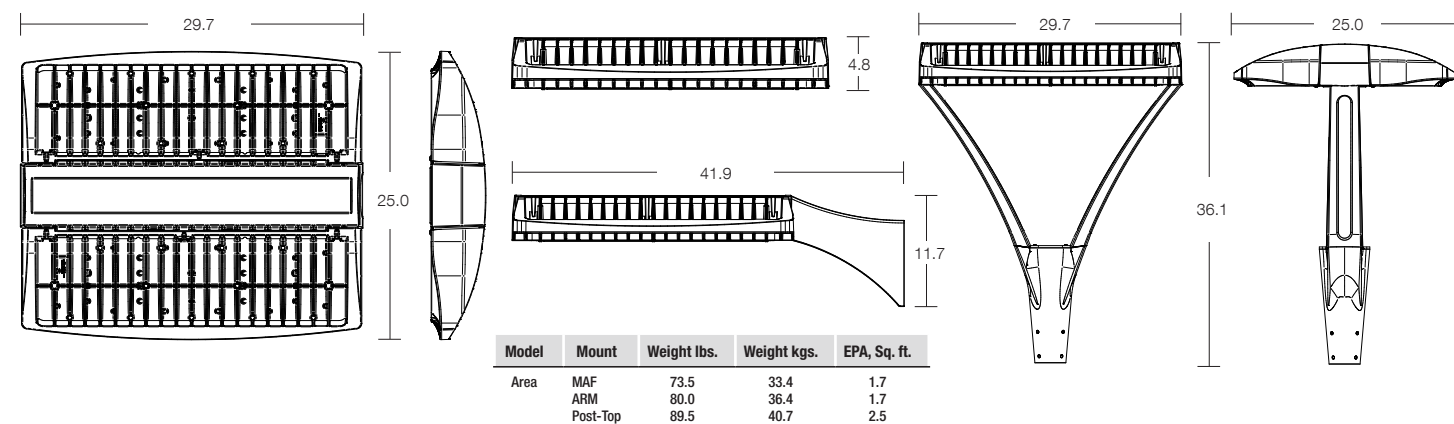
# AREA ORDERING INFORMATION

ORDERING EXAMPLE: MA/A/96L-555/5K7/2/UNV/ASQ/DBT/7PR-TL/BC

| MA/A | | | | | | | | | |

| SERIES | ENGINE | CCT/CRI[7] | ROTATION | COLOR | CONTROL OPTIONS | OPTIONS |
|---|---|---|---|---|---|---|

**SERIES**
MA/A  Matrix

**ENGINE**
80L-260  260W, 33,000 lm
96L-315  315W, 40,000 lm
64L-325  325W, 37,000 lm
64L-370  370W, 40,000 lm
80L-405  405W, 45,000 lm
80L-465  465W, 50,000 lm
96L-490  490W, 55,000 lm
96L-555  555W 60,000 lm

**CCT/CRI[7]**
5K7  5000K, 70 CRI
4K7  4000K, 70 CRI
3K7  3000K, 70 CRI

**ROTATION**
Leave blank for no rotation
L[1]  Optic rotation left
R[1]  Optic rotation right

**DISTRIBUTION**
FR  Type 1/Front Row
2  Type 2
3  Type 3
4  Type 4
5R  Type 5 Rectangular
5QM  Type 5 Square Med
5QW  Type 5R Square Wide

**VOLTAGE**
UNV  120-277V
347  347V
480  480V

**COLOR**
DB  Dark Bronze Textured
BL  Black Textured
WH  White Textured
PS  Plat. Silver Smooth
GYS  Light Gray Smooth
GT  Graphite Textured
TT  Titanium Textured
CC  Custom Color

**MOUNTING**
ASQ  Arm Square
A2  Arm mount for 2.4"-3.0" OD round pole
A3  Arm mount for 3.1"-4.0" OD round pole
A4  Arm mount for 4.1"-5.0" OD round pole
A5  Arm mount for 5.1"-6.0" OD round pole
MAF  Mast Arm Fitter (same as slip fitter)
K[8]  Knuckle (5˚ adjustable fitter)
PT2  Post top of 2 3/8" tenon (3.5 bottom OD)

**CONTROL OPTIONS**
7PR-TL  7 pin PCR with photo control
7PR-SC  7 pin PCR with shorting cap
2PF  2 power feed with 2 drivers
GENI[2,3]  Energeni
SCL/40F  Low voltage sensor for 7PR-SC and wiSCAPE external control accessory
SCP/40F[2,4,5]  Programmable Line Voltage sensor
SWP[2,6]  SiteSync Pre-Commission
SWPM/40F[2,6]  SiteSync Pre-Commission w/Sensor

**OPTIONS**
BC  Backlight Control
SF120  120V Fuse
SF277  277V Fuse
SF347  347V Fuse
DF208  208V Fuse
DF240  240V Fuse
DF480  480V Fuse
TB[9]  Terminal Block
BS  Bird Spikes

[1]  Not available with 5QM or 5QW distribution.
[2]  Not available with other sensor or wireless control options.
[3]  Specify routine setting code (example GENI-04). See ENERGENI brochure and instructions for setting table options.
[4]  Photocell included with sensor, additional photocontrol not recommended.
[5]  Order at least one SCPREMOTE per project location to program and control
[6]  Specify group and zone at time of order. See www.hubbell-automation.com/products/sitesync/ for more details. Order at leaset one SiteSync interface Accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node
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[8]  Limited to applications requiring 30˚ tilt or less. If higher angle tilt is required use flood version with glass cover
[9]  Not available on K or PT2 mountings
[10]  Requires 7PR-SC photocell receptacle. Include SCL/40F if occupancy sensing is required

Accessories and Services (Ordered Separately)

| Control Accessories | |
|---|---|
| SWUSB | SiteSync Software on USB |
| SWTAB | SiteSync Windows Tablet |
| SWBRG | SiteSync Wireless Bridge Node |
| SCPREMOTE | Order at least one per project location to program and control |
| WIR-RME-L[10] | wiSCAPE external control node |

| Accessories | |
|---|---|
| MAA-BC | Backlight Control accessory kit |

**DIMENSIONS**

29.7
25.0
4.8
29.7
41.9
11.7
25.0
36.1

| Model | Mount | Weight lbs. | Weight kgs. | EPA, Sq. ft. |
|---|---|---|---|---|
| Area | MAF | 73.5 | 33.4 | 1.7 |
| | ARM | 80.0 | 36.4 | 1.7 |
| | Post-Top | 89.5 | 40.7 | 2.5 |

# FLOOD ORDERING INFORMATION

ORDERING EXAMPLE:  MA/F/104L-550/5K7/N/UNV/K/DB/7PR-TL

| MA/F | | | | | | |

| SERIES | ENGINE | CCT/CRI[6] | VOLTAGE | COLOR | CONTROL OPTIONS | OPTIONS |
|---|---|---|---|---|---|---|

**SERIES**
MA/F  Matrix

**ENGINE**
104L-265  265W, 30,000 lm
104L-300  300W, 33,000 lm
104L-330  330W, 35,000 lm
148L-380  380W, 42,000 lm
148L-425  425W, 46,000 lm
148L-470  470W, 50,000 lm
192L-490  490W, 55,000 lm
192L-550  550W, 60,000 lm
192L-610  610W, 65,000 lm

**CCT/CRI[6]**
5K7  5000K, 70 CRI
4K7  4000K, 70 CRI
3K7  3000K, 70 CRI

**DISTRIBUTION**
N  2x2 Flood
M  4x4 Flood
W  6x6 Flood

**VOLTAGE**
UNV  120-277V
347  347V
480  480V

**MOUNTING**
K  Knuckle (5˚ adjustable fitter)
Y  Yoke

**COLOR**
DB  Dark Bronze Textured
BL  Black Textured
WH  White Textured
PS  Plat. Silver Smooth
GYS  Light Gray Smooth
GT  Graphite Textured
TT  Titanium Textured
CC  Custom Color

**CONTROL OPTIONS**
7PR  Photo Receptacle
7PR-TL  7 pin PCR with photo control
7PR-SC  7 pin PCR with shorting cap
2PF  2 power feed with 2 drivers
GENI[1,2]  Energeni
PC[1]  Button Photocell
SCL/40F  Low voltage sensor for 7PR-SC and wiSCAPE external control accessory
SCP/40F[1,3,4]  Programmable Line Voltage sensor
SWP[1,5]  SiteSync Pre-Commission
SWPM/40F[1,5]  SiteSync Pre-Commission w/Sensor

**OPTIONS**
FL  Louver
SF120  120V Fuse
SF277  277V Fuse
SF347  347V Fuse
DF208  208V Fuse
DF240  240V Fuse
DF480  480V Fuse

[1]  Not available with other sensor or wireless control options.
[2]  Specify routine setting code (example GENI-04). See ENERGENI brochure and instructions for setting table options.
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[7]  Requires 7PR-SC photocell receptacle. Include SCL/40F if occupancy sensing is required

Accessories and Services (Ordered Separately)

| Control Accessories | |
|---|---|
| SWUSB | SiteSync Software on USB |
| SWTAB | SiteSync Windows Tablet |
| SWBRG | SiteSync Wireless Bridge Node |
| SCPREMOTE | Order at least one per project location to program and control |
| WIR-RME-L[7] | wiSCAPE external control node; use with 7PR |

| Accessories | |
|---|---|
| MAF-FL | Louver |
| MAF-FV-XX | Visor |

**DIMENSIONS**

29.7
25.0
4.8
34.5
13.1

| Model | Mount | Weight lbs. | Weight kgs. | EPA, Sq. ft. |
|---|---|---|---|---|
| Flood | Knuckle, 0˚ | 86.0 | 39.1 | 1.7 |
| | Knuckle, 30˚ | | | 3.8 |