Galleon™
LED Area and Site Luminaire

Mcgraw-Edison

COOPER Lighting Solutions

www.cooperlighting.com

Area and Site Lighting Redefined

A New Benchmark in Performance and Features

The Galleon LED luminaire delivers a new level of performance and versatility for commercial area, site and roadway applications. Incorporating industry-leading, patented optics, the Galleon LED luminaire offers a choice of 16 specialized optical distributions that deliver superior control and maximize light levels. With a choice of 30 lumen packages, the Galleon LED luminaire allows scalability from 3,000 to over 53,000 delivered lumens. The 4000K/70 CRI is standard, with 6000K/70 CRI and 3000K/70 CRI options available.

Long Life with Low Maintenance Costs

In addition to delivering superior performance, the Galleon LED luminaire is designed for low maintenance, long life and low cost of ownership. These are key benefits that provide compelling justification to retrofit traditional HID solutions, or allow end users to capitalize on these advantages in new construction applications. The Galleon LED luminaire can be tailored to meet your most important needs without compromising on specification features. The LED components and fixture housing are IP66 rated, which provides years of reliable operation with minimal service requirements.

Engineered for Reliability

At Cooper Lighting Solutions we believe credibility is the key to our success. We are committed to providing LED solutions that meet the highest standards of reliability and performance. Our deep-rooted understanding of outdoor product markets and application needs have been resulted through decades of supplying quality products, service and support.

Design Excellence

Stepping Up to the Challenge

The Galleon LED luminaire delivers exceptional performance in a highly scalable, low-profile design. The patented, high-efficiency AccuLED Optics™ system provides uniform and energy-conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. With HID equivalents ranging from 100W up to 1000W, the Galleon LED luminaire is designed to meet the toughest lighting challenges.

Construction

- Extruded aluminum driver enclosure
- Heavy-wall die-cast aluminum end caps
- 3G vibration rated
- IP66-rated housing and LED Light Squares
- Optional tool-less entry

Electrical

- Operates in -40°C to 40°C ambient with optional high ambient 50°C ambient configuration
- Proprietary circuit module designed to withstand 10kV of transient line surge
- >L90 60,000 hours at 40°C, compliant with IESNA TM-21
- 120V-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation

Controls

- Standard with 0-10V dimming driver(s)
- Optional occupancy sensor
- Optional wireless control and monitoring system

Finish

- Five-stage, super durable TGIC paint resists extreme weather conditions while providing optimal color and gloss retention. It's available in standard grey or optional bronze, black, dark platinum, graphite metallic or white.


Grey

Bronze

Black

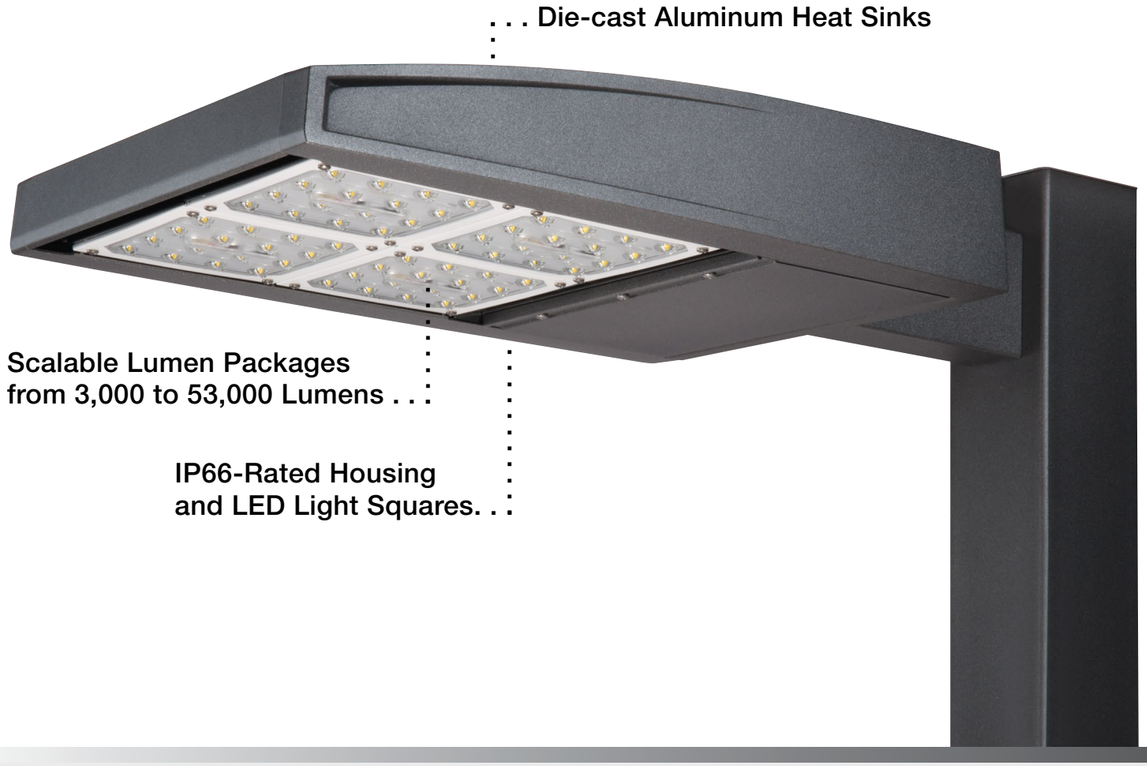

Dark Platinum


Graphite Metallic


White

Warranty

- Five-year warranty



Surge Protection

A 10kV common surge (line-to-ground) and differential surge (line-to-line) mode protection is standard.

NEMA Twistlock Photocontrol Receptacle

Optional gasketed receptacle for mounting standard NEMA photocontrol (order separately).

Light Square Trim Plate Finish

An optional finish to match LED trim plates to the housings exterior allows luminaire to blend seamlessly in any site lighting application.

Mounting Options

Occupancy Sensor

The optional motion sensor reduces energy use for site lighting applications.

Mast Arm Adapter

An optional cast aluminum mast arm adapter secures fixture head to nominal 2" (2-3/8" O.D. pipe size) horizontal steel tenon arm.

Wall Mount Bracket

An optional wall-mount plate is secured to wall by four lag bolts (supplied by others).

Scalable Illumination with LED Light Squares

Energy Savings and Environmental Stewardship

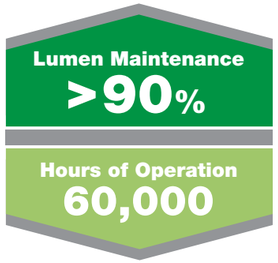
The simplest and most effective way to reduce a lighting fixture's impact on the environment is to minimize its energy consumption. By incorporating Light Squares from Cooper Lighting Solutions, the Galleon LED luminaire provides energy savings up to 75 percent compared to standard HID solutions.

Long Life

With a 60,000+ hour rated life (at greater than 90 percent lumen maintenance), the Galleon LED Luminaire operates up to six times longer than traditional metal halide fixtures.

Low Maintenance

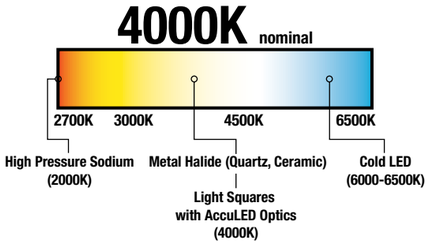
With simple quick disconnects, the Light Squares are easily removed in the field for replacement or for the rotation of the optics.



NOTE: Compliant with IESNA TM-21

Warm White Color

Lighting designers, architects and specifying engineers have long preferred light sources that provide a balanced spectral power distribution and warm white light. Many LED solutions standardize on a cool blue 5000-6000K correlated color temperature (CCT) to maximize lumen output.
The Galleon LED Luminaire provides warm white light at a standard 4000K CCT with no sacrifice in lumen output.



Superior Efficiency and Control

With efficiencies as high as 95 percent, the patented AccuLED Optics™ system is up to 30 percent more efficient than traditional HID optical systems. Available in 16 optional distributions, this system provides the flexibility and performance required for outdoor applications.

House Side Shield

For stringent light trespass requirements and the ultimate level of backlight control, a house side shield accessory is available for factory or field installation. Designed to seamlessly integrate with the SL2, SL3, SL4 and AFL distributions, the house side shield virtually eliminates backlight and also enhances visual comfort.

Optical Performance Redefined

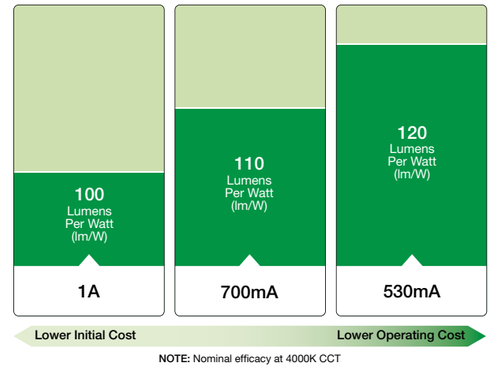
Performance and Scalability

The Galleon LED luminaire is designed around superior optical performance and scalability. With a choice of 30 lumen packages and 16 optical distributions, the optimal configuration can be used to maximize light levels while minimizing operating costs.

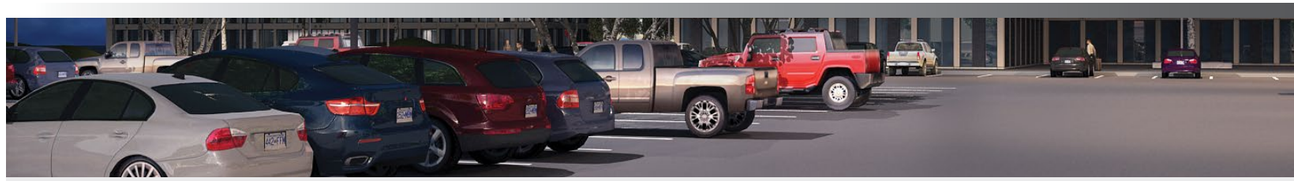
Power Consumption (Watts)

Number of Light Squares	Drive Current		
	530mA	700mA	1A
1	30	38	56
2	54	72	107
3	80	105	157
4	105	138	213
5	130	176	264
6	159	210	315
7	184	243	370
8	209	276	421
9	234	314	475
10	259	348	528

Efficacy (lm/W)

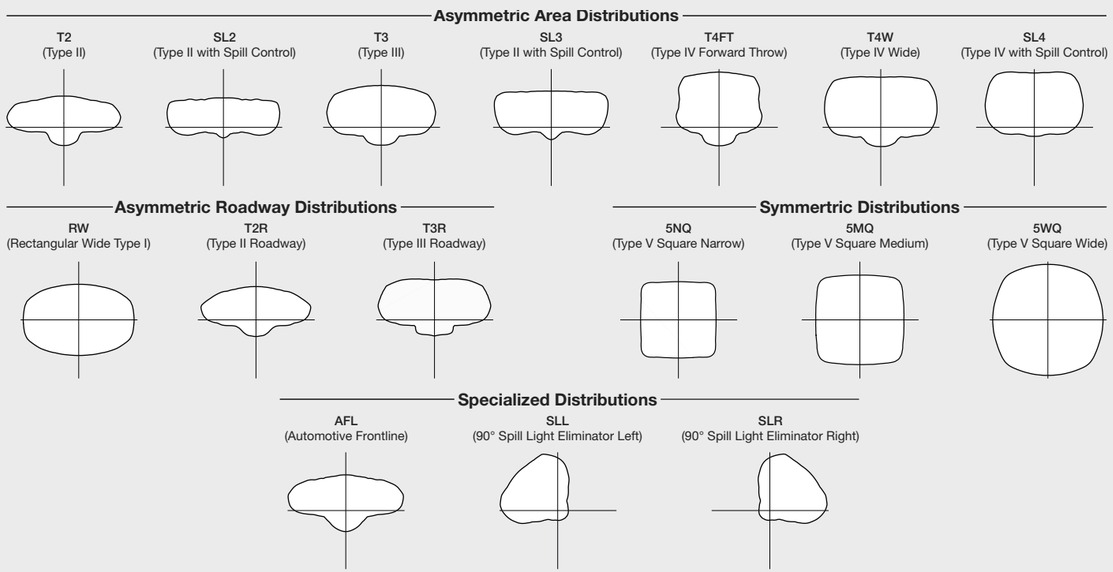


NOTE: Nominal efficacy at 4000K CCT



Optical Distributions

The Galleon luminaire has a choice of seven asymmetric area, three asymmetric roadway, three symmetric and three specialized distributions.



Occupancy Sensing

Accelerate Payback on your Investment

To further enhance energy savings, the Galleon luminaire offers an optional occupancy sensor that is integral to each individual luminaire. When the area surrounding the luminaire is unoccupied, the sensor has the ability to reduce light levels and power consumption. In addition to financial benefits, all the control options for the Galleon luminaire are designed to be simple and cost-effective ASHRAE and Title 24 compliant solutions.

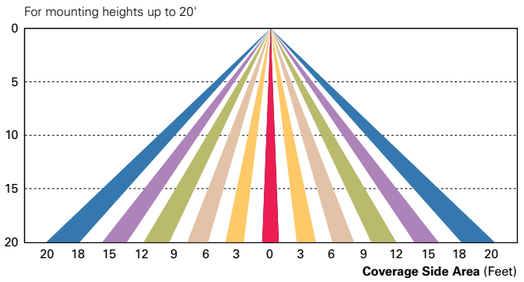
Dimming Occupancy Sensor (DOS)

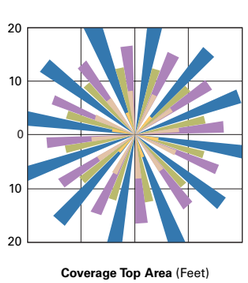
When the DOS option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The sensor is factory preset to dim down to approximately 50 percent lumen output with a time delay of five minutes. To change these settings, a FSIR-100 accessory can be purchased. The FSIR-100 is a wireless configuration tool that allows the dimming level, time delay, sensitivity and other parameters to be changed. Consult a representative from Cooper Lighting Solutions for additional details.

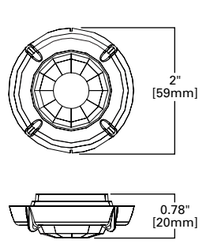
LumaWatt Wireless Control and Monitoring System (DIMRF-LW and DIMRF-LN)

The LumaWatt system is best described as a peer-to-peer wireless network of luminaire-integral sensors that operate in accordance with programmable profiles. The end user can create and manage sensor profiles with browser-based management software and broadcast to the sensors as necessary via wireless gateways. Each sensor is capable of motion and photo sensing, metering power consumption and wireless communication. For additional details, refer to www.cooperlighting.com.

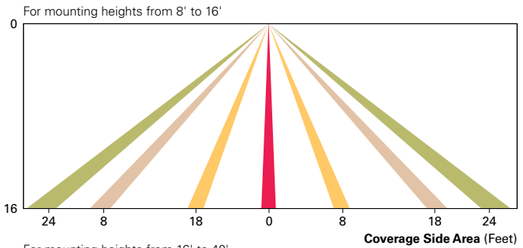
Dimming Occupancy Sensor (DOS)

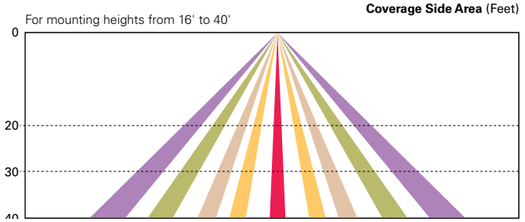


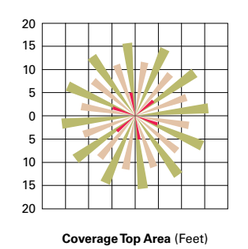


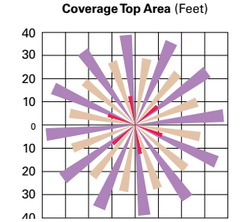


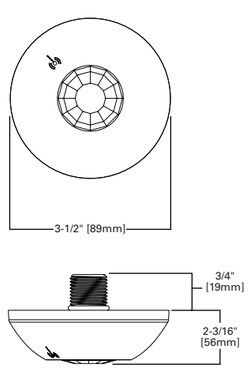
LumaWatt (DIMRF-LW and DIMRF-LN)







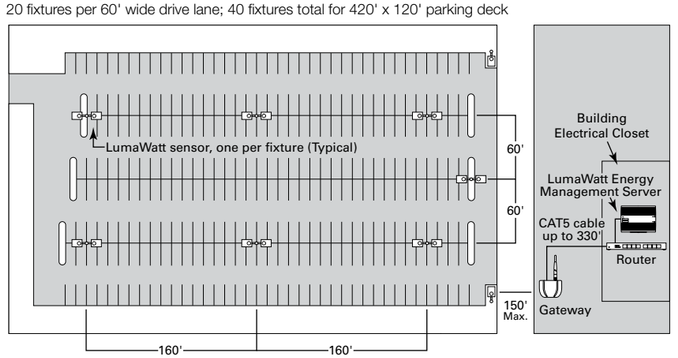




Scheduled Dimming and Occupancy Detection

For outdoor parking area applications, lighting should be dimmed or turned off within one hour of business closing. Scheduled dimming and occupancy detection can be combined to reduce maximum lighting levels outside business hours. Egress and security lighting is available on occupancy detection.

Sides of Drive Fixture Location
Fixture Spacing = 160' x 120' on center
20 fixtures per 60' wide drive lane; 40 fixtures total for 420' x 120' parking deck



Energy Savings Calculations

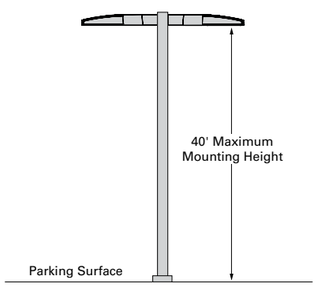
Configuration	Daily Hours of Operation	Control Event	Annual Load (KWh)
14 Sensor Integrated Luminaires 35' on Mounting Height, Centered at 120' x 160'			
Bill-of-Material (BOM)			
(1) RF-EM1, (1) RF-ROUT1, (1) RF-GW1 (14) GLEON-AE10-LED-E1-T2-BZ-DIMRF-LN (515W)	11	100% On	28,948
Control Schedule			
7:30 PM-11:30 AM	4	100% On	10,526
11:30 PM-6:30 AM	7	40% On, On Occupancy 70%	7,268
Total Controlled Load	11	2 Events	17,895
Energy Saving			**38%**

IESNA Lighting Handbook 10th Edition
Illuminance Values for Area and Site Applications

Parking Lot Design Guide

Illuminance	Minimum Horizontal Illuminance [1]	Uniformity Ratio Max. / Min.	Minimum Vertical Illuminance [2]
	lux/fc		
Basic	2.0 / 0.2	20:1	1.0 / 0.1
Basic Enhanced Security	5.0 / 0.5	15:1	2.5 / 0.25
Security	10.0 / 1.0	15:1	5.8-8.0 / 0.5-0.5
High Security	30.0-60.0 / 3.0-6.0	4:1	12-60 / 1.2-6.0

NOTES:
1 Measured on parking surface without shadowing from any object
2 For facial recognition measured at 5' above the parking surface at the point of lowest horizontal illuminance



Configuration Flexibility

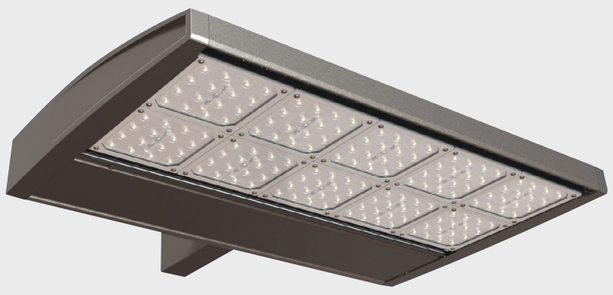
A New Level of Scalable Solutions

The Galleon LED luminaire is available in one to 10 Light Squares. As the number of Light Squares increases, the luminaire width increases proportionally.

1 - 4 Light Squares

5 - 6 Light Squares

7 - 8 Light Squares



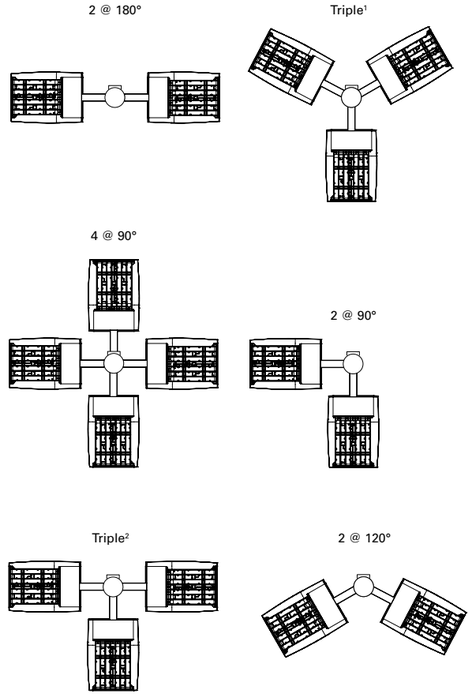
9 - 10 Light Squares

Pole Mounting Configurations

The standard Galleon LED luminaire configuration is designed to mount to a round or square pole. When mounting two or more fixtures at 90° or 120° apart, a longer Extended Arm (EA) may be required. Please reference the table below to determine when the Extended Arm is required and designate "EA" in the catalog logic.

Arm Mounting Requirements

Configuration	90° Apart	120° Apart
GLEON-AE-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AE-10	16" Extended Arm (Required)	16" Extended Arm (Required)



NOTES: 1. Round poles are 3 @ 120°. Square poles are 3 @ 90°. **2**. Round poles are 3 @ 90°.

Ordering Information

Sample Number: GLEON-AE-04-LED-E1-T3-GM-700

Product Family	Light Engine	Number of Light Squares [1]	Lamp Type	Voltage	Distribution		Color	Mounting
GLEON=Galleon	**AE**=1A Drive Current	**01**=1 **02**=2 **03**=3 **04**=4 **05**=5 **06**=6 **07**=7 **08**=8 **09**=9 **10**=10	**LED**=Solid State Light Emitting Diodes	**E1**=120-277V **347**=347V [2] **480**=480V [2]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Square Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide	**SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm [3] **MA**=Mast Arm Adapter [4] **WM**=Wall Mount

Options (Add as Suffix)

2L=Two Circuits [5, 6]
7030=70 CRI 3000K [7]
7060=70 CRI 6000K [7]
530=Drive Current Factory Set to 530mA [8]
700=Drive Current Factory Set to 700mA [8]
P=Button Type Photocontrol (120, 208, 240 or 277V)
R=NEMA Twistlock Photocontrol Receptacle
HA=50°C High Ambient [6]

MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height [9, 10, 11, 12]
MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [9, 10, 11, 12]
MS/DIM-L40=Motion Sensor for Dimming Operation, 21'- 40' Mounting Height [9, 10, 11, 12]
MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height [11, 12, 13, 14]
MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height [10, 11, 14]
MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height [10, 11, 14]
DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [13]
DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [13]

L90=Optics Rotated 90° Left
R90=Optics Rotated 90° Right
MT=Factory Installed Mesh Top
TH=Tool-less Door Hardware
LCF=Light Square Trim Plate Painted to Match Housing
HSS=Factory Installed House Side Shield [15]

Accessories (Order Separately)

OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V
OA/RA1027=NEMA Photocontrol - 480V
OA/RA1201=NEMA Photocontrol - 347V
OA/RA1013=Photocontrol Shorting Cap
OA/RA1014=120V Photocontrol
MA1252=10kV Surge Module Replacement
MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon
MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon
MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon

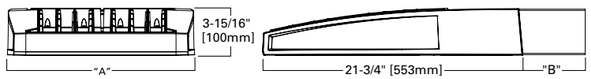
MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon
MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon
MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon
MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon
MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon
MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon

MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon
MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon
FSIR-100=Wireless Configuration Tool for Occupancy Sensor [16]
GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares
GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares
GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares
GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares
LS/HSS=Field Installed House Side Shield [15, 17]

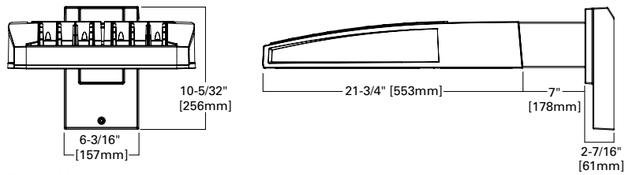
NOTES: 1 Standard 4000K CCT and minimum 70 CRI. **2** LumaWatt Wireless Sensors not currently available for 347V or 480V applications. **3** May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table. **4** Factory installed. **5** Only available in 5-10 Light Squares. **6** Not available with LumaWatt wireless sensors. **7** Use dedicated IES files for 3000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website. **8** 1 Amp standard. Use dedicated IES files when performing layouts. These files are published on the Galleon luminaire product page on the website. **9** Must specify dimming driver. Consult factory for more information. **10** 120V or 277V 60Hz and 230V 50Hz only. Replace E1 with specific voltage. Consult factory for availability in 347V and 480V. **11** The FSIR-100 accessory is required to adjust parameters. **12** Not available with HA option. **13** LumaWatt wireless sensors are factory installed only requiring network components RF-EM1, RF-GW1 and RF-ROUT1 in appropriate quantities. See www.cooperlighting.com for LumaWatt application information. **14** Sensor mounted externally. Available in 2, 3, 4, or 6 Light Square configurations. Replace "X" with number of Light Squares in low output mode. For ON/OFF operation, replace "X" with "0". Maximum two Light Squares in low output mode. Not available with dimming driver. No terminal block with bi-level operation. **15** Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected. **16** This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your Cooper Lighting Solutions representative for additional details. **17** One required for each Light Square.

Dimensions

Pole Mount



Wall Mount



Dimensional Data

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length [1]
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)

NOTES: 1 Optional arm length to be used when mounting two fixtures at 90° on a single pole.
2 EPA calculated with optional arm length.

Lumen Multiplier

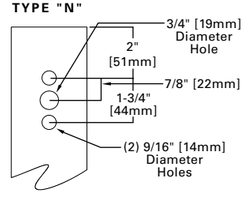
Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

Lumen Maintenance

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C	> 90%	> 170,000

Drilling Pattern

TYPE "N"



Additional Information

Compliances	Technical Data (Electronic LED Driver)	Approximate Weight	EPA (Effective Projected Area - Square Feet)
UL and cUL Wet Location Listed IP66 Light Squares 3G Vibration Rated ARRA Compliant ISO 9001	+40°C (104°F) Ambient Temperature Rating -40°C (-40°F) Ambient Temperature Rating Optional 50°F (HA) Ambient Temperature Rating >0.9 Power Factor <20% Total Harmonic Distortion 120V-277V/50 and 60 Hz 347V/60 Hz, 480V/60 Hz	1-4 Light Squares 33 lbs. (15.0 kgs.) 5-6 Light Squares 44 lbs. (20.0 kgs.) 7-8 Light Squares 54 lbs. (24.5 kgs.) 9-10 Light Squares 63 lbs. (28.6 kgs.)	1-4 Light Squares 0.96 5-6 Light Squares 1.00 7-8 Light Squares 1.07 9-10 Light Squares 1.12

IP66 Rated

NOTE: Specifications and dimensions subject to change without notice.

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Cooper Lighting Solutions
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