

JUPITER™ BOLLARD SERIES

ARCHITECTURAL SOLAR PATHWAY & LANDSCAPE LIGHTING

LOW-PROFILE SOLAR LIGHTING PLATFORM



Modular solar bollard lighting system engineered for pedestrian pathways, landscapes, and low-height architectural applications. The Jupiter Series integrates high-efficacy LED modules, LiFePO4 battery storage, and MPPT control into a compact, self-contained form factor for reliable off-grid illumination.

SYSTEM ARCHITECTURE

- Integrated LED Bollard Luminaire (1.5W – 10W typical range)
- Top-Mounted Monocrystalline Solar Module
- Internal LiFePO4 Battery Storage
- MPPT Charge Controller (≥99% tracking efficiency)
- Die-Cast + Extruded Aluminum Housing

SYSTEM PARAMETERS

- 1.5 ft – 4.5 ft height configurations
- 4-step programmable dimming profile
- IP65 / IK08 outdoor-rated construction
- Direct bury or base plate mounting
- Standard & custom architectural finishes

THE JUPITER ADVANTAGE



LOW MAINTENANCE OPERATION

LiFePO4 battery chemistry with ~3000 cycle life reduces long-term maintenance requirements while maintaining stable performance across temperature ranges.



INTELLIGENT POWER MANAGEMENT

Integrated MPPT controller with programmable dimming profiles automatically adjusts output throughout the night to extend runtime and maintain system reliability.



HIGH-EFFICIENCY LIGHTING CORE

Utilizes Philips or Seoul Semiconductor LED chips delivering ≥ 200 lm/W system output, ensuring efficient pathway illumination with minimal energy draw.



FLEXIBLE CONFIGURATION PLATFORM

Engineered for smart cities. Standard configurations support PIR and Microwave motion sensing for on-demand output, and are fully upgradeable to LoRa wireless central monitoring and control.



COMPACT SOLAR INTEGRATION

All core components—solar panel, battery, controller, and luminaire—are fully integrated within the bollard structure, eliminating trenching, wiring, and external power dependencies.

TECHNICAL SPECIFICATIONS — PLATFORM

• LED LUMINAIRE & OPTICS

System Efficacy	≥ 200 lm/W
LED Chipset	Philips / Seoul
Power Consumption	1.5W – 10W (model dependent)
Color Temp (CCT)	27K / 30K / 40K / 50K
Light Distribution	Asymmetric / Symmetric
Luminaire Warranty	5–10 Years

• BATTERY

Battery Chemistry	LiFePO ₄
Cycle Life (80% DOD)	≥ 3,000 Cycles
Voltage	12.8V Typical
Expected Life	5–10 Years
Battery Warranty	8 Years

• SOLAR PANEL

Technology	Monocrystalline
Panel Efficiency	35%
Configuration	Top-Integrated, Body-Integrated
Solar Warranty	20 Years

• MECHANICAL & MOUNTING

Housing Material	Aluminum 6063 + Carbon Steel
Finish Color	Black std. (Bronze, Wood Grain, Custom opt.)
Hardware	Stainless Steel
Mounting Type	Anchor Bolt (AB)
Wind Load Rating	120 mph
Ingress / Impact	IP65 / IK10
Operating Temp	-13°F to 113°F

• MPPT CONTROLLER

Tracking Efficiency	> 99%
Control System	MPPT std.
Dimming	4-Step Programmable
System Safeties	Over-charge / Deep-discharge
MPPT Warranty	8 Years

• Motion Sensor Available

Specifications represent standard configurations and are subject to final engineering and site-specific conditions. Custom configurations are available upon request.

JUPITER-H SERIES

Standard architectural bollard platform designed for general pathway and landscape illumination, balancing height, output, and distribution for broad applicability across pedestrian environments.

Available in S / M / L configurations with increasing height, battery capacity, and solar input to support extended runtime and higher light output requirements.



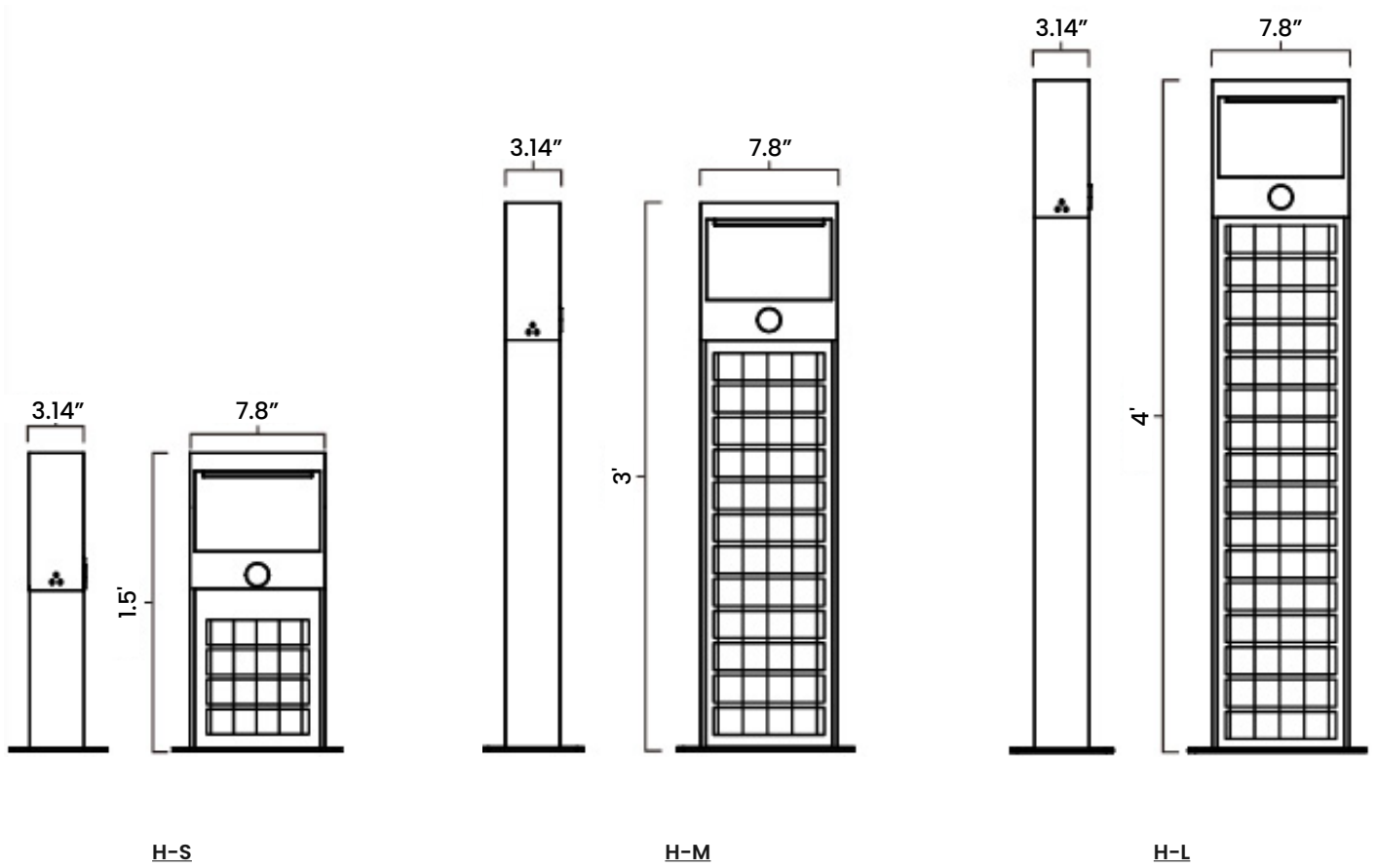
JUPITER-H SERIES — CONFIGURATION MATRIX

(Small / Medium / Large)

CATEGORY	SPECIFICATION	JUPITER-HS	JUPITER-HM	JUPITER-HL
Installation	Height	1.5 ft	3 ft	4 ft
	Mounting	Direct bury / Base plate		
Electrical	LED Chips	Philips / Seoul		
	Power Consumption	1.5W (0-3W adj.)	3W (0-5W adj.)	5W (0-10W adj.)
	Output	≥200 lm/W	≥200 lm/W	≥200 lm/W
	Distribution	Asymmetric / Symmetric		
	CCT	2700K-5000K		
	Runtime	4-Step Dimming		
Battery	Capacity	12.8V 2Ah	12.8V 4Ah	12.8V 8Ah
	Cycle Life	3000	3000	3000
Solar Panel	Panel	8W x1 / x2	17W x1 / x2	25W x1 / x2
	Type	Monocrystalline	Monocrystalline	Monocrystalline
Materials	Housing	Aluminum 6063 + Carbon Steel		
	Finish	Bronze / Black / Wood Grain / Custom		
	Rating	IP65 / IK08		
	Operating Temp	-13°F to 113°F		
	Warranty	5-10 Years		

JUPITER-H SERIES — DIMENSIONS

JUPITER-H



JUPITER-S SERIES

Minimal-profile single-post bollard solution designed for low-impact pathway and accent lighting, prioritizing simplicity, ease of installation, and visual integration into landscape environments.

Available in M / L configurations in a streamlined, standalone unit, ideal for projects requiring subtle illumination with minimal structural presence.



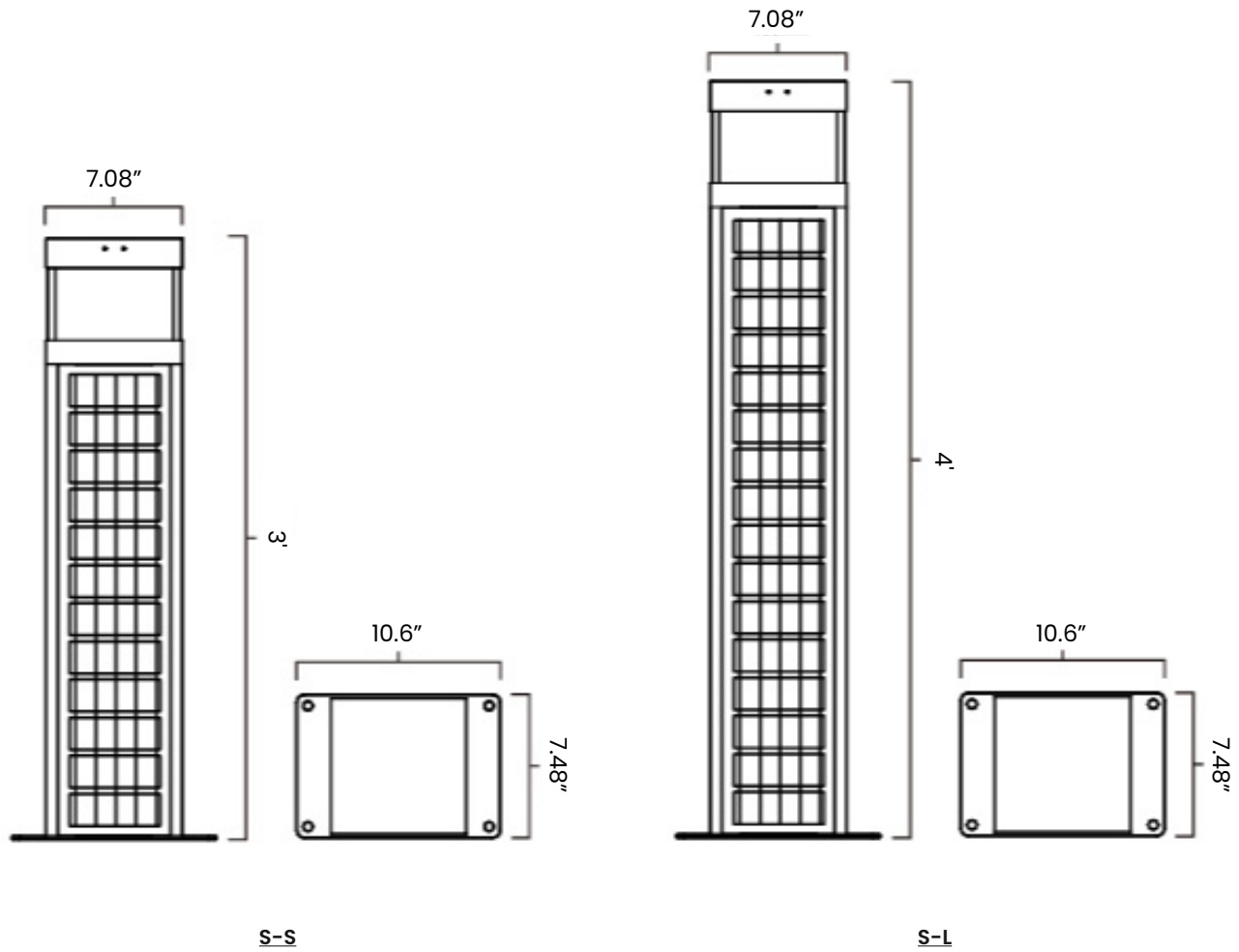
JUPITER-S SERIES — SINGULAR POST CONFIGURATIONS

(Small / Medium)

CATEGORY	SPECIFICATION	JUPITER-SM	JUPITER-SL
Installation	Height	3 ft	4 ft
	Mounting	Direct bury / Base plate	
Electrical	LED Chips	Philips / Seoul	
	Power Consumption	3W (0-5W adjustable at site)	5W (0-10W adjustable at site)
	Output	≥100 lm/W	≥100 lm/W
	Distribution	Symmetric	
	CCT	2700K-6500K	
	Runtime	4-Step Dimming	
	Battery	Capacity	12.8V 4Ah
Cycle Life		3000	3000
Solar Panel	Panel	17W ×1 / ×2	20W ×1 / ×2
	Type	Monocrystalline	Monocrystalline
Materials	Housing	Aluminum 6063 + Carbon Steel	
	Finish	Bronze / Black / Wood Grain / Custom	
	Rating	IP65 / IK08	
	Operating Temp	-13°F to 113°F	
	Warranty	5-10 Years	

JUPITER-S SERIES — DIMENSIONS

JUPITER-S



JUPITER-L SERIES

Low-profile bollard platform tailored for pathway and perimeter lighting where reduced height and controlled light distribution are preferred for visual comfort and spacing efficiency.

Available in S / M / L configurations with scalable output and battery capacity to accommodate varying pathway widths and illumination levels.



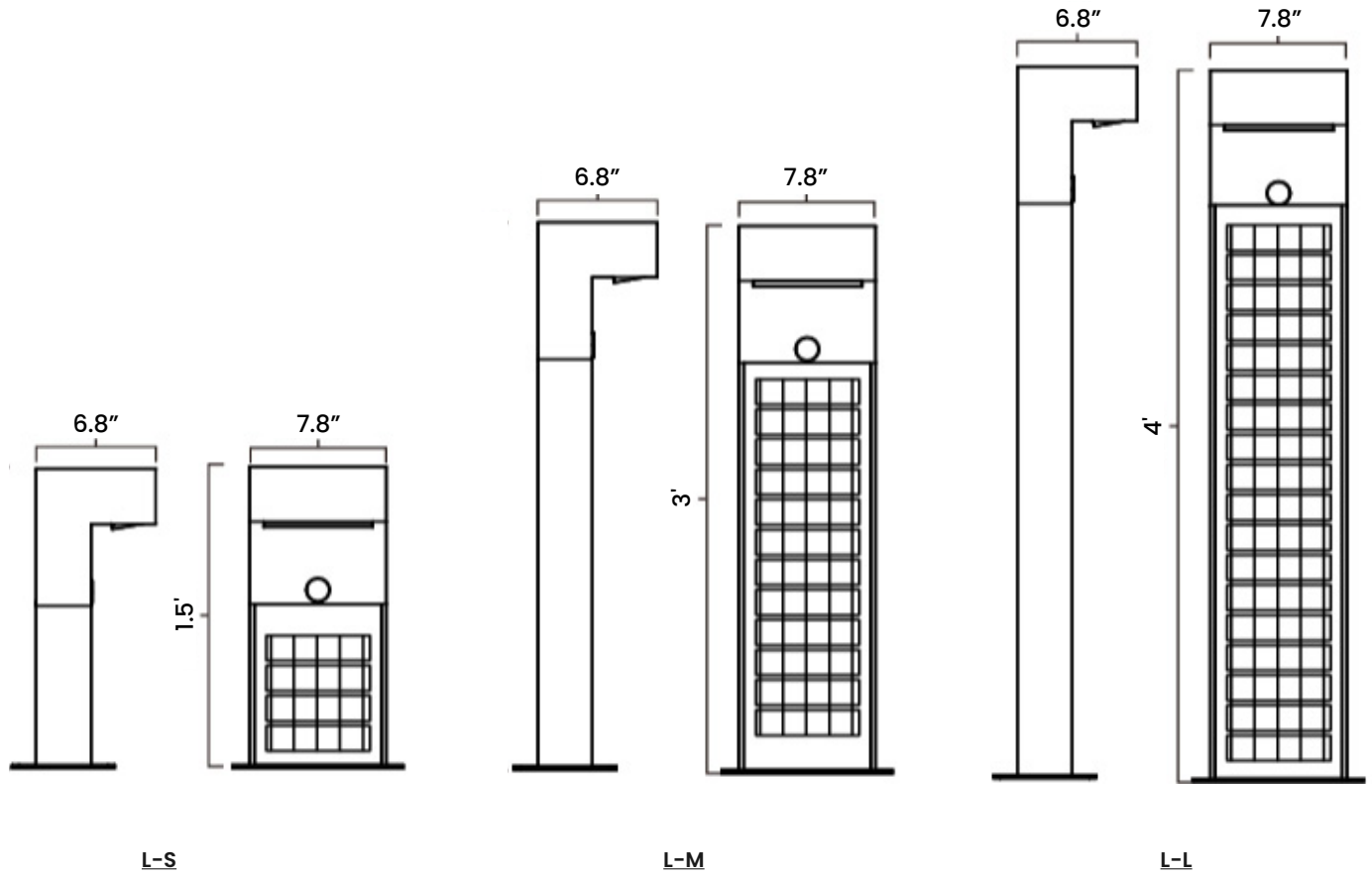
JUPITER-L SERIES — LOW-PROFILE CONFIGURATIONS

(Small / Medium / Large)

CATEGORY	SPECIFICATION	JUPITER-LS	JUPITER-LM	JUPITER-LL
Installation	Height	1.5 ft	3 ft	4 ft
	Mounting	Direct bury / Base plate		
Electrical	LED Chips	Philips / Seoul		
	Power Consumption	1.5W (0–3W adj.)	3W (0–5W adj.)	5W (0–10W adj.)
	Output	≥200 lm/W	≥200 lm/W	≥200 lm/W
	Distribution	Asymmetric		
	CCT	2700K–5000K		
	Runtime	4-Step Dimming		
Battery	Capacity	12.8V 2Ah	12.8V 4Ah	12.8V 8Ah
	Cycle Life	3000	3000	3000
Solar Panel	Panel	8W x1 / x2	17W x1 / x2	25W x1 / x2
	Type	Monocrystalline	Monocrystalline	Monocrystalline
Materials	Housing	Aluminum 6063 + Carbon Steel		
	Finish	Bronze / Black / Wood Grain / Custom		
	Rating	IP65 / IK08		
	Operating Temp	-13°F to 113°F		
	Warranty	5–10 Years		

JUPITER-L SERIES — DIMENSIONS

JUPITER-H



U.S. SOLAR DESIGN ZONES

ZONE A – NORTHERN / LOW SUN

2.4 sun hours. Conservative winter baseline for northern states.

Design approach: Largest panel and battery reserve.

ZONE B – CENTRAL / MODERATE SUN

3.3 sun hours. Balanced winter design basis for central U.S. applications.

Design approach: Balanced solar and battery sizing.

ZONE C – SOUTHERN / HIGHER SUN

4.4 sun hours. Reliable winter design basis for southern states.

Design approach: Optimized panel size with high recharge margin.

ZONE D – EXTREME CONDITIONS

1.5 sun hours. Project-specific baseline for Alaska, mountain regions, etc.

Design approach: Maximum custom engineering basis.

FACTORY-SET DIMMING SCHEDULE (ALL MODELS)

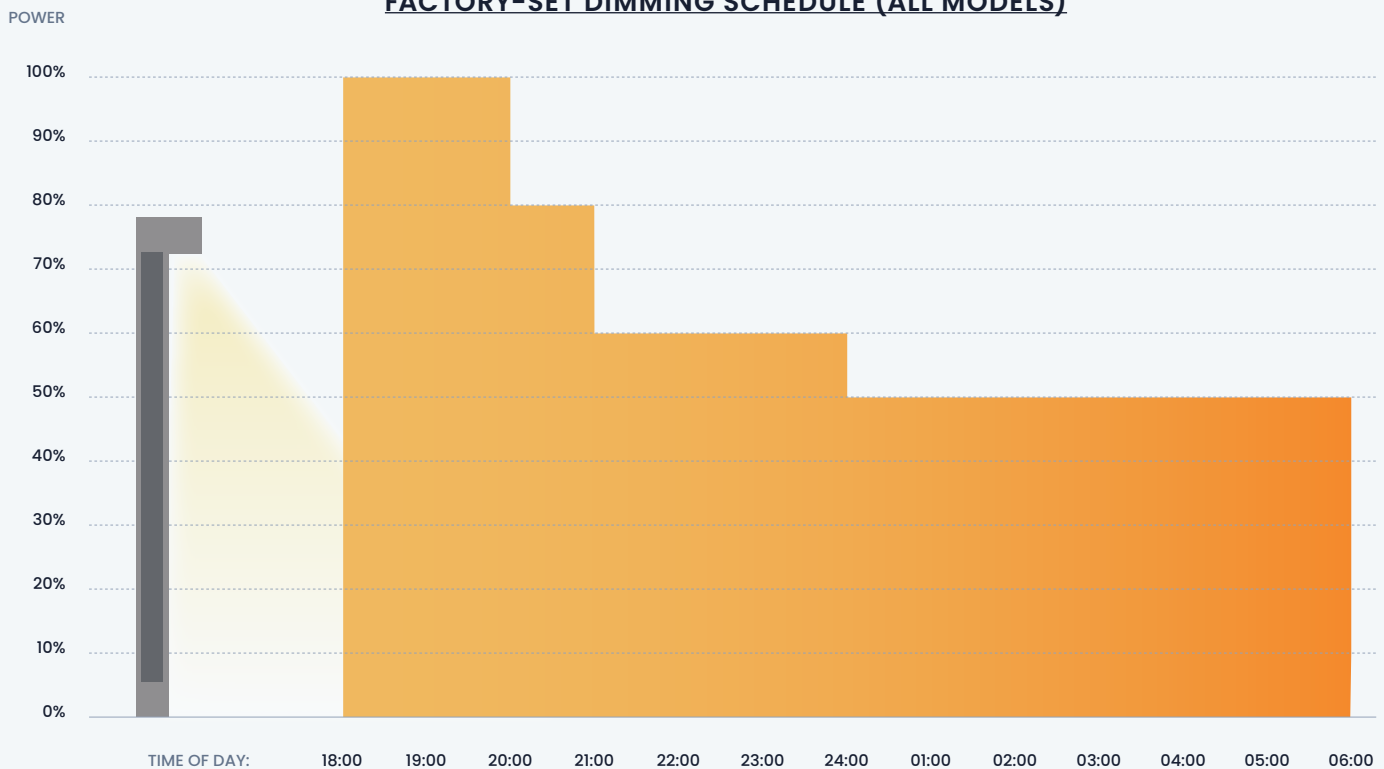


Chart metrics for reference only, custom schedule set as required.

ORDERING INFORMATION

SERIES	CONFIG			CCT	FINISH	MOUNTING	OPTIONS
JUPITER-H	S (1.5W)	M (3W)	L (5W)	27K	BLK (Black)		NONE (Standard)
JUPITER-S	S (3W)	L (5W)		30K	BRZ (Bronze)	BP (Base Plate)	MOT (Motion Sensor)
JUPITER-L	S (1.5W)	M (3W)	L (5W)	40K (Standard)	WDG (Wood Grain)	DB (Direct Bury)	SMC (Smart Control)
				50K			MON (Monitor)

Note: Recommended L standard configuration — 5W (0-10W adjustable at site)

EXAMPLE PART NUMBER JUPITER - H - M - 40K - BLK - BP - MOT | QTY: 20

FIXTURE SCHEDULE

TYPE	PART NUMBER	QTY

Final configuration shall be verified against project-specific electrical and photometric requirements.
Custom configurations are available upon request.

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JUPITER™ SERIES
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE