



Product Overview

Featuring modular design and multiple driver solutions, the BPL-SL-M multi-functional module kit delivers comprehensive upgrades in luminous efficacy, service life and maintenance cost without damaging the original structure of historic luminaires. It strikes a balance between heritage conservation and modern lighting standards.

Quick Retrofit & Light-Color Restoration

Quick Installation: Compatible with structures of traditional lanterns and top-mount luminaires. No cutting or modification to original housing. Installation only requires module fixing and wiring; single replacement takes less than 10 minutes.

Warm-Light Restoration: Warm CCT options from 1800K to 2700K. Combined with diffuse-reflection optical system, it accurately reproduces the soft texture of incandescent lamps and prevents cold white light from visually damaging historic styles.

Three Driver Options & Ultra-long Service Life

Multiple Solution Coverage: Three options including built-in power supply, external power supply and driver-free linear IC cover full power range from 30W to 120W, satisfying scenarios with limited space, centralized power supply and cost-sensitive requirements.

Ultra-long Service Life: Adopts high-pressure die-cast aluminum PCB combined with SMD 3030 / 5050 chips. L70 lifetime exceeds 100,000 hours at 25°C ambient temperature; maintenance cycle is over 8 times longer than conventional sodium-vapor lamps.

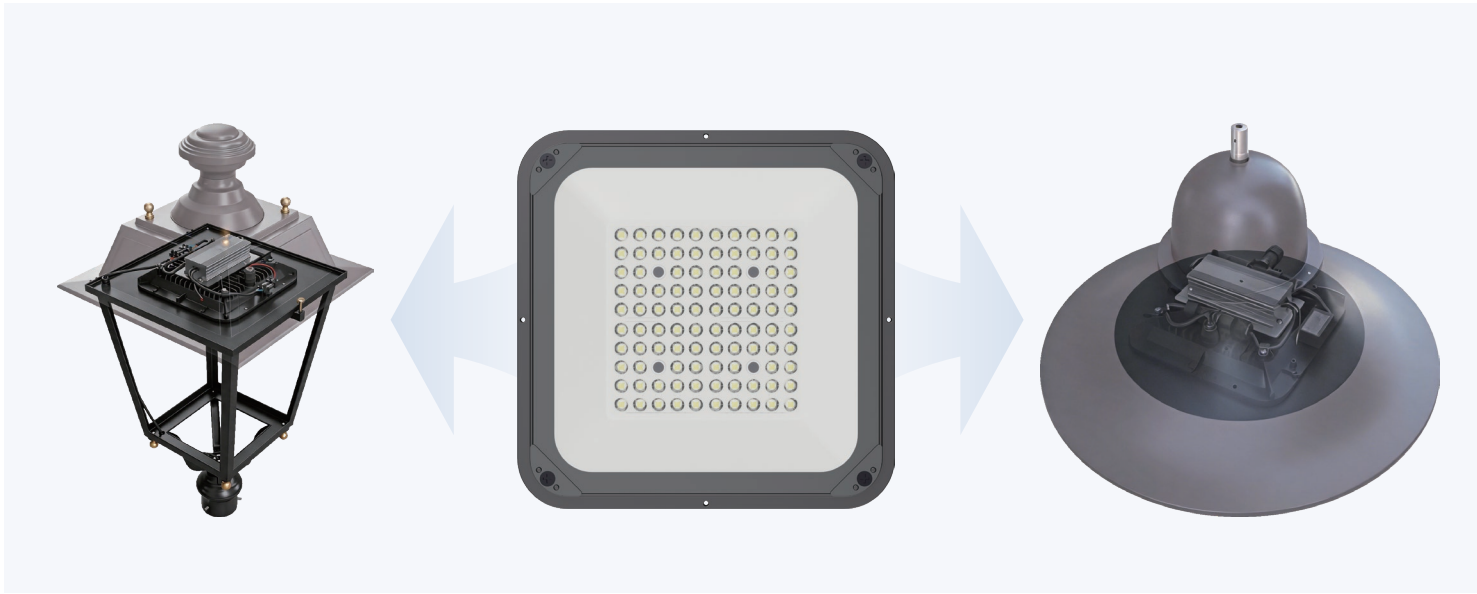
Modular Design & Multi-scene Adaptation

Multi-purpose Luminaire: Dual-mode switch between street light / floodlight. Standard bracket interfaces are reserved on main body; floodlight conversion can be realized with matching accessories, covering road lighting, building facade illumination, landscape supplementary lighting and other diverse scenarios.

Zero-modification Quick Retrofit: Compatible with existing luminaire housing structure. Fix in-place directly after removing old light source. Replacement time is comparable with conventional lamp bulbs without extra construction difficulty or schedule risk.

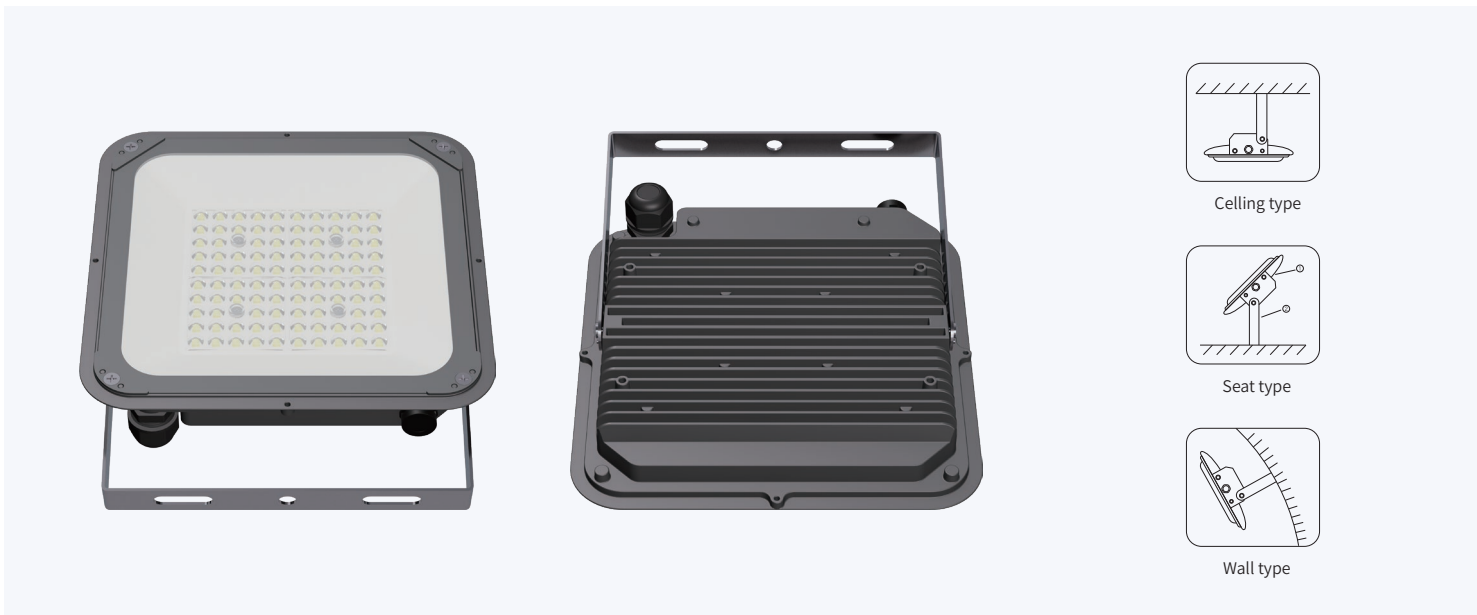
Modular Design & Multi-scene Adaptation

The modular design of BPL-SL-M multi-functional retrofit kit is reflected in two dimensions: horizontally compatible with quick-retrofit interfaces of mainstream street-light luminaires on market; vertically realizing mode switch between street-light module and floodlight via reserved brackets. This design expands a single product into cross-platform and cross-scene lighting solution, greatly reducing inventory complexity and customization cost.



Standardized Interface Design: Mounting holes, electrical interfaces and thermal-contact surfaces comply with specifications of mainstream domestic street-light kits, covering models from over 92% manufacturers.

Zero-modification Quick Retrofit: Compatible with existing housing structure. Fix in-place directly after removing old light source. Replacement time is comparable with conventional bulb replacement without extra construction difficulty or schedule risk.



Reserved M4 Mounting Holes: Standard threaded holes reserved on luminaire side. With optional U-bracket, mode conversion from recessed street light to wall-mounted floodlight can be finished within 5 minutes.

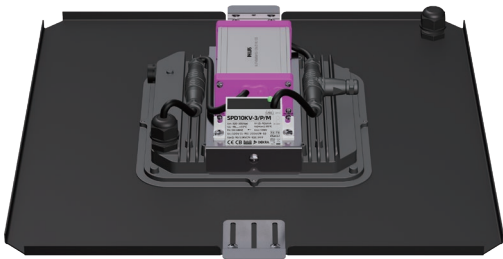
Two-in-One Luminaire for Cost Reduction & Efficiency Improvement: One vintage luminaire retrofit kit works for both road lighting and facade flood lighting, reducing spare-part inventory. Especially suitable for mixed multi-scene lighting of historic buildings.

Detailed Introduction to Three Driver Solutions

Built-in for convenience, external for performance, driver-free for cost-efficiency. Three solutions cover full power range of 30W-120W. Site installation space, thermal condition and control-protocol requirements shall be the top priority for model selection.

External Power Supply Version

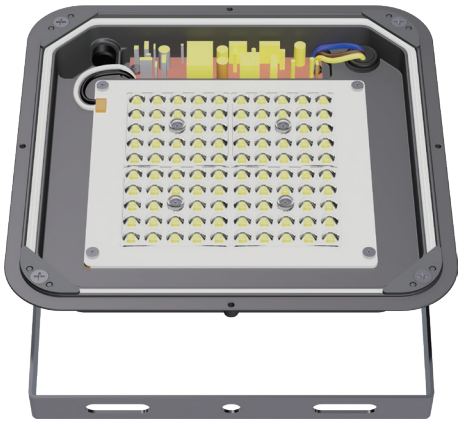
Driver is externally independent and connected via IP68 waterproof connector. It reduces module thermal load to extend LED service life. Power supply maintenance does not require luminaire disassembly, ideal for centralized power-supply applications. Supports well-known brand drivers such as Philips, full-protocol compatibility including DMX with excellent EMC performance. Max applicable power reaches 120W; preferred solution for bridges and high-mast lighting.



For harsh-condition application

Built-in Power Supply Version

Driver integrated inside module. All-in-one design reduces external wiring. Single-person installation takes less than 15 min, suitable for retrofit projects with sufficient inner housing space. Maintains PF>0.95 with built-in over-voltage & over-current protection. Co-designed thermal dissipation for LED module; junction temperature kept below 65°C under full load. Supports 1-10V and DALI dimming protocols.



For outdoor application

Driver-free Linear IC Version

Adopts high-voltage linear constant-current IC solution without isolation transformer and large electrolytic capacitors. Simplified circuit with no magnetic components delivers outstanding anti-vibration performance, particularly applicable for vibration-prone historic-building environments. Wide-voltage adaptive and flicker-free, EMC compliant. Cost reduced by over 30% versus conventional solutions. Applicable power ≤100W, supports stepless 0-100% dimming and requires dedicated linear dimmer.



For indoor application

Summary of Core Photoelectric Parameters

High luminous efficacy, fully-sealed IP66 protection and over 100,000-hour L70 lifetime combine vintage appearance with reliability standards of modern industrial-grade lighting equipment. It flexibly adapts to various application scenarios and delivers stable, worry-free and high-quality lighting experience.

Photometric Parameters

Model		BPL-SL-M-30W	BPL-SL-M-50W	BPL-SL-M-60W	BPL-SL-M-80W	BPL-SL-M-100W	BPL-SL-M-120W
Rated Power		30W	50W	60W	80W	100W	120W
3030 Version	Luminous Efficacy	150LM/W	145LM/W	155LM/W	155LM/W	155LM/W	150LM/W
	Luminous Flux	4500LM	7250LM	9300LM	12400LM	15500LM	18000LM
5050 Version	Luminous Efficacy	160LM/W	155LM/W	170LM/W	160LM/W	165LM/W	160LM/W
	Luminous Flux	4800LM	7750LM	10200LM	12800LM	16500LM	19200LM
3535 Version	Luminous Efficacy	175LM/W	170LM/W	180LM/W	170LM/W	180LM/W	175LM/W
	Luminous Flux	5250LM	8500LM	10800LM	13600LM	18000LM	21000LM

Electrical Parameters

Rated Voltage	AC 100-240V/277V 50/60Hz
LED Driver	Philips (Standard) / Other brands optional
Power Factor	>0.95
THD	<15
SPD	10kV (Standard) / 20kV
Color Rendering Index	Ra>70 (Standard) / Ra>80
Color Temperature (CCT)	1800K,2200K,2700K,3000K,4000K,5000K,5700K,6500K

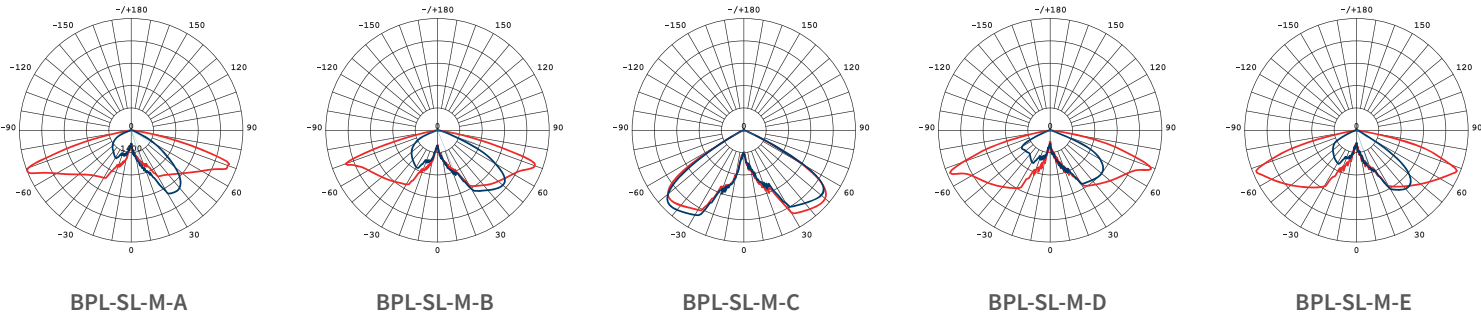
Other Parameters

Materials	High-pressure die-cast aluminum, tempered glass, UV-stabilized polycarbonate
Housing Color	Black (Standard) / Custom colors available
Operating Environment	-40°C ~ 50°C, 10% ~ 90% RH (Relative Humidity)
Lifetime at 25°C Ambient Temperature	>100,000h
Impact Protection Rating	IK08
Mounting Kit	Round Kit (400mm) / Square Kit (400×400mm); Custom shape & size available

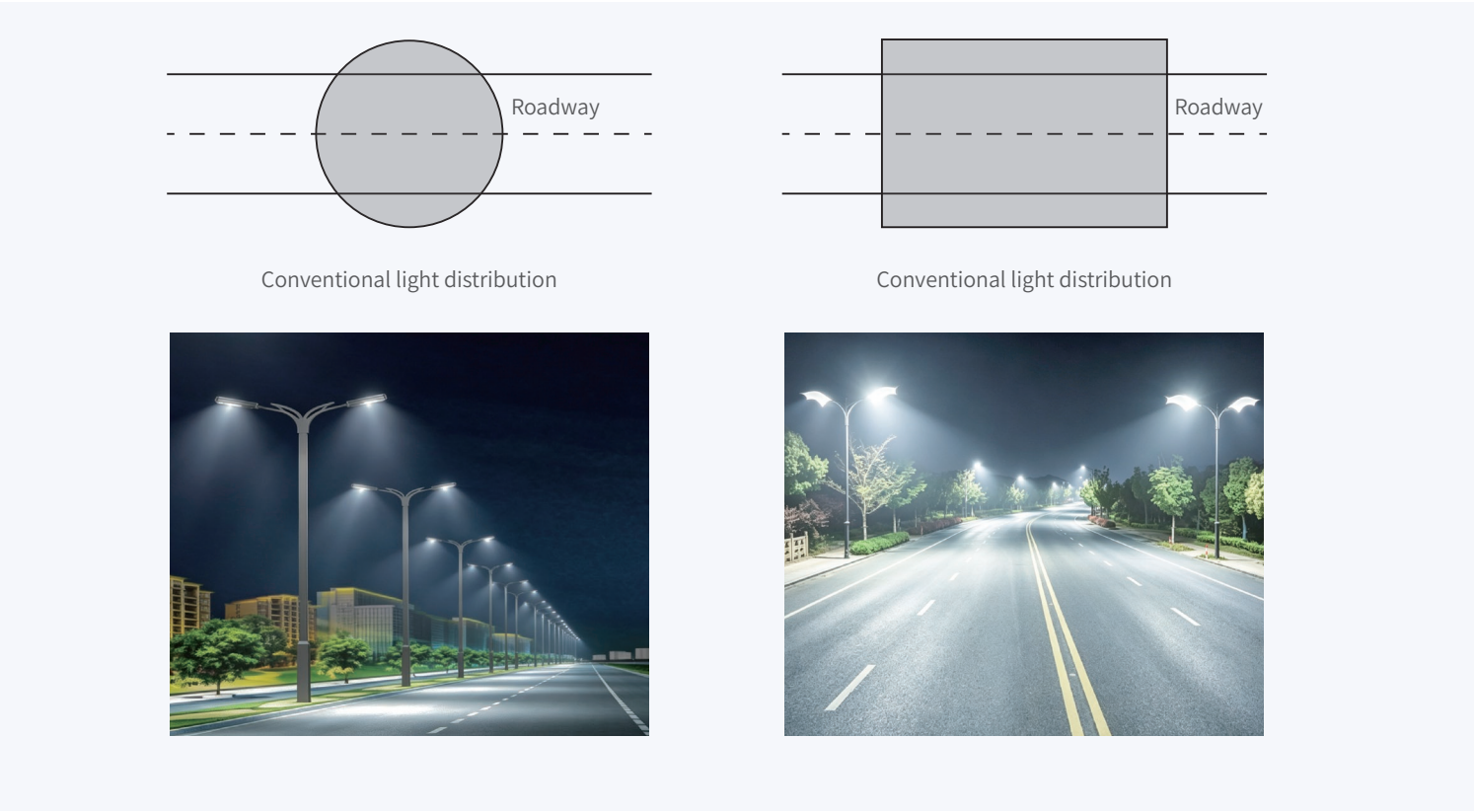
Optical System & Advantages of Bat-wing Light Distribution

Bat-wing light distribution adopts bilateral symmetrical wide-angle intensity distribution (peak at 60 °-75 °), fundamentally solving the conventional street-light defect “bright under lamp, dark between lamps” . Road surface uniformity $U_0 \geq 0.4$, improved by over 30% compared with conventional distribution. Glare index $TI \leq 10\%$ reduced by 20%. Upward Light Output Ratio(ULOR)<1% effectively suppresses light spillage. It represents the optimal optical solution for high-quality road lighting and energy-saving.

Optical System



Conventional Light Distribution vs Bat-wing Light Distribution Comparison



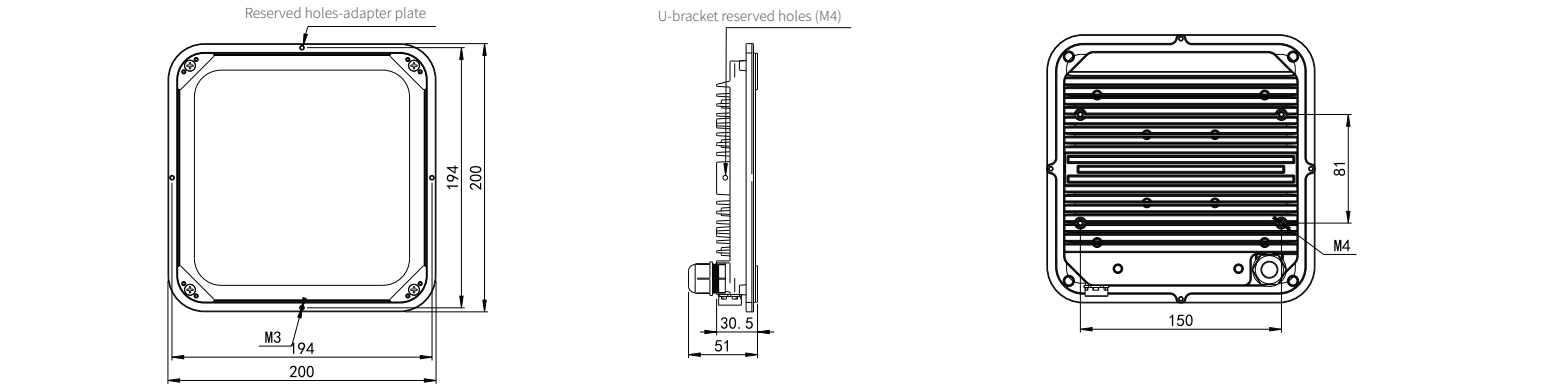
Road-surface Uniformity: Bat-wing distribution achieves $U_0 \geq 0.4$, $U_1 \geq 0.7$ complying with CJJ45 arterial-road standard. Conventional symmetrical distribution only reaches $U_0 0.2-0.3$. Zebra-stripe effect is eliminated for remarkable improvement in visual comfort and driving safety.

Glare Control: Bat-wing distribution $TI \leq 10\%$; peak luminous intensity avoids human-eye direct-view sensitive zone. Conventional distribution TI reaches 15-20%. Night-driving visual fatigue is greatly reduced.

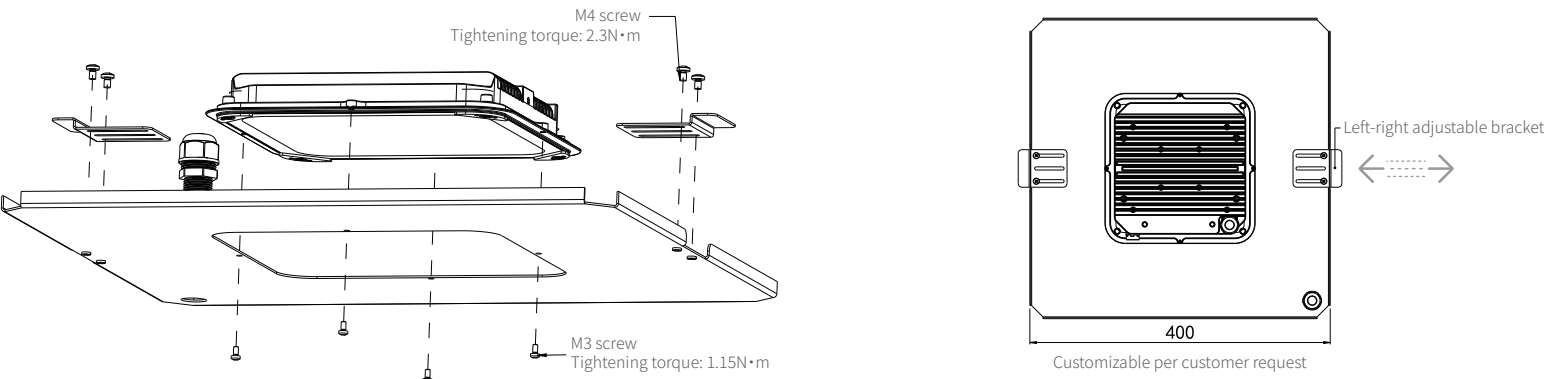
Light-spillage Suppression: Bat-wing distribution $ULOR < 1\%$ with strictly controlled backward spill light; conventional distribution reaches 3-5%. It satisfies dark-sky-protection requirements and avoids resident complaints.

Installation & Dimension Specification

Core Luminaire Dimensions & Reserved Openings



Installation Diagram for Square (Round) Adapter Plate



Multi-purpose Luminaire (Floodlight-mode Schematic Diagram)

