SCS-ZM Intelligent Lighting Management and Control System
System Introduction

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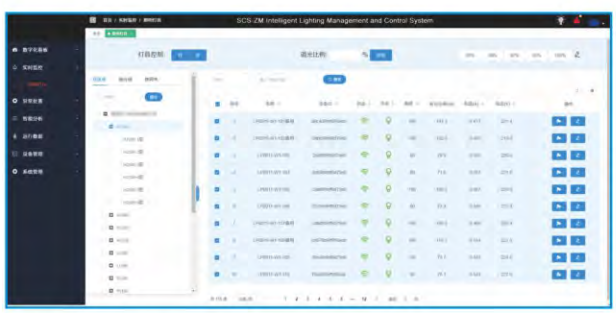
◆ Visual Management

The main interface of the system provides intuitive visualization of key data, including the number of luminaires, integrity rate, failure rate, energy consumption data, and control strategies, enabling convenient and straightforward management.

Serial number	Time point	Action	Illumination effect (Brightness)	Remarks
1	06:30 ~ 17:30	Turn off + sensor	Partial Area: Light turns on to 100% when person arrives, turns off when person leaves	Adjustable at any time as needed
2	17:30 ~ 21:00	Turn on	100%	
3	21:00 ~ 23:00	Dimming + Sensor	Light turns on to 100% when person arrives, dims to 50% when person leaves	
4	23:00 ~ 06:30	Dimming + Sensor	Light turns on to 100% when person arrives, dims to 50% when person leaves	

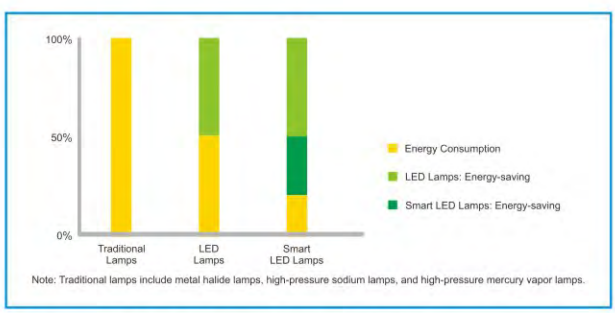
◆ Intelligent Control

The system supports remote automatic strategy control, scheduled control, and scene-based control for lighting equipment, effectively addressing the time-consuming and labor-intensive challenges associated with manual operation.



◆ Intelligent Monitoring

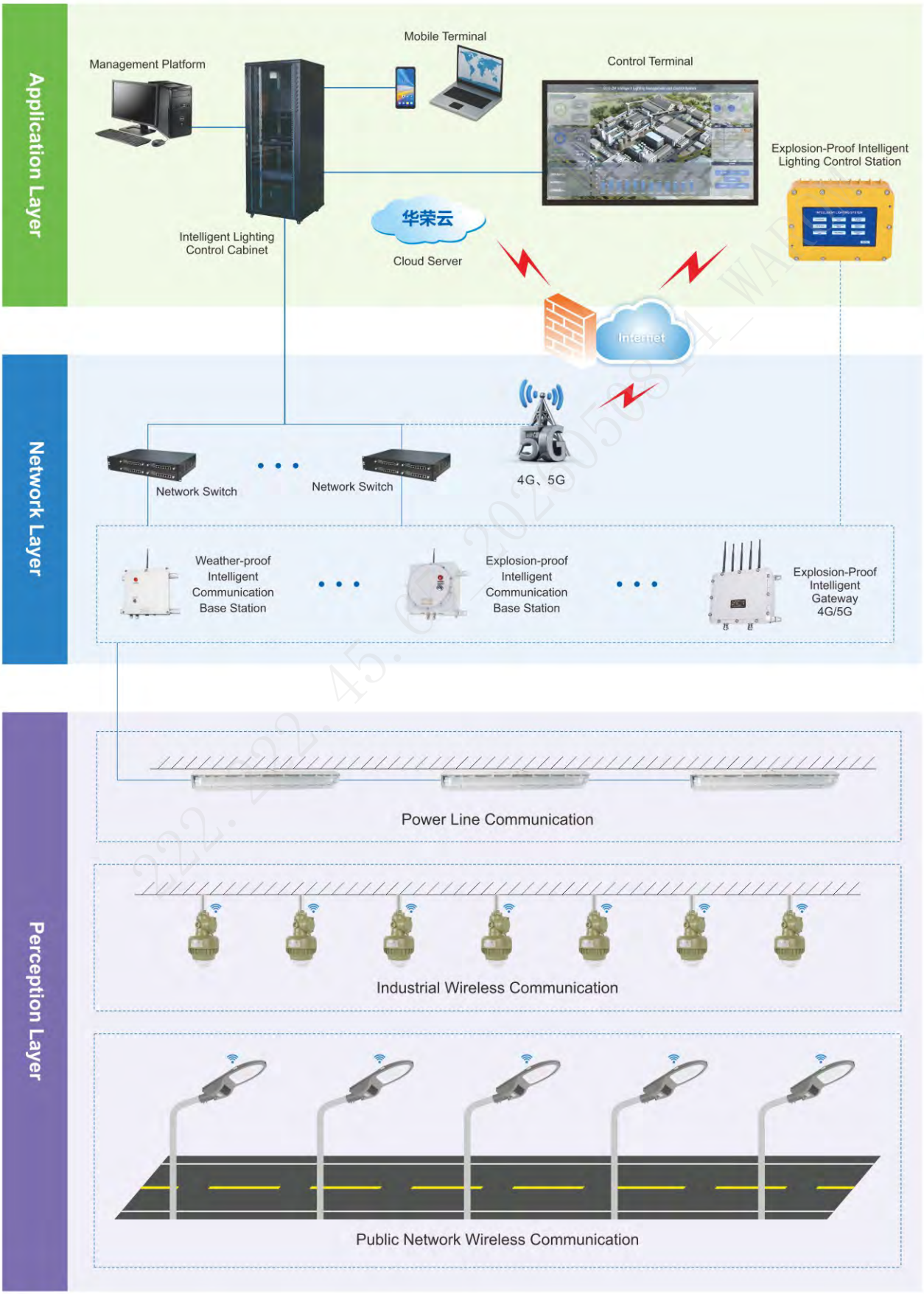
The system enables real-time monitoring of lighting equipment status-including on/off state, power consumption, brightness level, and fault conditions-resolving difficulties related to manual full-site inspections and fault diagnosis.



◆ Energy Saving and Emission Reduction

The system allows for customizable intelligent operating strategies such as scheduled timing and photoelectric sensing control. It enables automatic continuous dimming to reduce power consumption and achieve demand-based lighting while realizing energy conservation and emission reduction.

System Topology Diagram



Equipment Configuration and Selection Table for the Intelligent Lighting Management and Control System

Model	Basic Parameters	More details
Intelligent Lighting Control Cabinet 	System Service Software Package Lighting System Server Cabinet Dimensions: 800×1000×2100mm	/
BAY51-Q LED □Z Series Explosion-proof Light Fittings (Intelligent Type) 	Ex-mark: Ex db eb mb IIC T6/T5 Gb Ex tb IIIC T80°C Db Ⓔx II 2 G Ex db eb mb IIC T6/T5 Gb Ⓔx II 2 D Ex tb IIIC T80°C Db Lamp power: 20W, 40W (Type I) 60W, 80W (Type II) Communication Method: Industrial Wireless, Power Line Carrier Mounting: Ceiling type (X), Wall type (B), Pole type (L), Pendant chain type (D), Pendant pole type (G)	P8/8
BAY51-D-LED □Z Series Explosion-proof Light Fittings (Intelligent Type) 	Ex-mark: Ex db IIB T6 Gb Ex db IIB+H_2 T6 Gb Ex tb IIIC T80°C Db IP66 Ⓔx II 2 G Ex db IIB T6 Gb Ⓔx II 2 G Ex db IIB+H_2 T6 Gb Ⓔx II 2 D Ex tb IIIC T80°C Db Lamp power: 20W, 40W (Type I) Communication Method: Industrial Wireless, Power Line Carrier Mounting: Ceiling type (X), Pendant pole type 1 (G1), Pole type (L), Pendant pole type 2 (G2)	P8/10
HRY51-G/C LED □Z Series Explosion-proof Light Fittings (Intelligent Type) 	Ex-mark: Ex db eb mb IIC T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T130°C Db Ⓔx II 2 G Ex db eb mb IIC T6/T5/T4 Gb Ⓔx II 2 G Ex tb IIIC T80°C/T95°C/T130°C Db Lamp power: 20W, 40W (Type I) 60W, 80W (Type II) Communication Method: Industrial Wireless, Power Line Carrier Mounting: Ceiling type (x), Wall type (b), Flange type (f), Fence type (h), Bend pole type (W), Pendant chain type (L), Pendant pole type (g)	P8/12

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Model	Basic Parameters	More details
BnY81-LED □Z Series Explosion-proof Light Fittings (Intelligent Type) 	Ex-mark: Ex ec mb IIC T5/T4 Gc Ex db ec mb IIC T5/T4 Gc Ex tb IIIC T80°C Db Ⓔx II 3 G Ex ec mb IIC T5/T4 Gc Ⓔx II 3 G Ex db ec mb IIC T5/T4 Gc Ⓔx II 2 D Ex tb IIIC T80°C Db Lamp power: 20W, 40W (Type I) 60W (Type II) Communication Method: Industrial Wireless, Power Line Carrier Mounting: Ceiling type (X), Wall type (B), Pole type (L), Pendant chain type (D), Pendant pole type (G)	P8/14
HRD91-LED □Z Series Explosion-proof LED Lightings (Intelligent Type) 	Ex-mark: Ex db IIC T6/T5/T4 Gb Ex tb IIIC T80°C/T85°C/T95°C/T100°C Db Ⓔx II 2 G Ex db IIC T6/T5/T4 Gb Ⓔx II 2 D Ex tb IIIC T80°C/T85°C/T95°C/T100°C Db Lamp power: 30W, 50W (Type I) 70W, 100W (Type II) Communication Method: Industrial Wireless, Power Line Carrier Mounting: Ceiling type (X), Wall type (B), Pole type (L), Hook type (D), Pendant pole type (G), Bracket type (K), Fence type (H)	P8/16
HRD95-□Z Series Explosion-proof LED Lightings (Intelligent Type) 	Ex-mark: Ex db op is IIC T□ Gb Ex tb op is IIIC T□ Db IP66 Ⓔx II 2 G Ex db op is IIC T□ Gb Ⓔx II 2 D Ex tb op is IIIC T□ Db IP66 Lamp power: 60W, 90W (Type 60) 120W, 160W (Type 160) Communication Method: Industrial Wireless, Power Line Carrier Mounting: Ceiling type (X), Wall type (B), Pole type (L), Hook type (D), Pendant pole type (G), Bracket type (K)	P8/18
BAT86-□Z Series Explosion-proof LED Floodlights (Intelligent Type) 	Ex-mark: Ex db IIB+H_2 T□ Gb Ex tb IIIC T□ Db Ⓔx II 2 G Ex db IIB+H_2 T□ Gb Ⓔx II 2 D Ex tb IIIC T□ Db Lamp power: 60W, 90W (Type 60) 120W, 160W (Type 160) Communication Method: Industrial Wireless, Power Line Carrier Mounting: Street lamp type (S), Bracket type (Y) Fixed type (G)	P8/20

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HRND95-□Z Series Explosion-proof LED Lightings (Intelligent Type) 	Ex-mark: Ex ec mc IIC T□ Gc Ex tb IIIC T□ Db Ⓔx II 3 G Ex ec mc IIC T□ Gc Ⓔx II 2 D Ex tb IIIC T□ Db Lamp power: 40W, 60W (Type I) 80W, 120W (Type II) 160W, 200W (Type III) 240W, 300W (Type IV) Communication Method: Industrial Wireless, Power Line Carrier Mounting: Bracket type	P8/22
HRNT95-□Z Series Explosion-proof LED Floodlights (Intelligent Type) 	Ex-mark: Ex ec mc IIC T□ Gc Ex tb IIIC T□ Db Ⓔx II 3 G Ex ec mc IIC T□ Gc Ⓔx II 2 D Ex tb IIIC T□ Db Lamp power: 80W, 120W (Type I) 150W, 200W, 240W (Type II) 300W (Type III) Communication Method: Industrial Wireless, Power Line Carrier Mounting: Bracket type	P8/24
BAM52-□Z Series Explosion-proof LED Street Lamps (Intelligent Type) 	Ex-mark: Ex nR IIC T6...T5 Gc Ex tb IIIC T80°C...T95°C Db Ⓔx II 3 G Ex nR IIC T6...T5 Gc Ⓔx II 2 D Ex tb IIIC T80°C...T95°C Db Lamp power: 60W, 80W, 100W, 120W, 150W, 160W, 180W, 200W Communication Method: Industrial Wireless, Power Line Carrier Mounting: Street lamp type	P8/26

Equipment Configuration and Selection Table for the Intelligent Lighting Management and Control System

Model	Basic Parameters	More details
WRD-CG/□ Explosion-proof Intelligent Lighting Sensor (Microwave, Light Sensing) 	Ex-mark: Ex db IIC T6 Gb Ex tb IIIC T80°C Db Ⓔx II 2 G Ex db IIC T6 Gb Ⓔx II 2 D Ex tb IIIC T80°C Db Lamp power: 30W, 50W (Type I) 70W, 100W (Type II) Mounting: Ceiling type, Wall type	P8/28
WRD-CG/□ Explosion-proof Intelligent Lighting Sensor (Microwave, Light Sensing, Wireless) 	Ex-mark: Ex db IIC T6 Gb Ex tb IIIC T80°C Db Ⓔx II 2 G Ex db IIC T6 Gb Ⓔx II 2 D Ex tb IIIC T80°C Db Lamp power: 30W, 50W (Type I) 70W, 100W (Type II) Communication Method: Industrial Wireless, Power Line CarrierRS485 Mounting: Ceiling type, Wall type	P8/30
WRG810 Explosion-proof Intelligent Lighting Control Station 	Ex-mark: Ex db IIC T6 Gb Ex tb IIIC T80°C Db Ⓔx II 2 G Ex db IIC T6 Gb Ⓔx II 2 D Ex tb IIIC T80°C Db Communication Method: Zigbee Wireless, PLC, Ethernet Cable, or Fiber Optic Mounting: Wall type	P8/32
WRG600 Explosion-proof Intelligent Communication Base Station 	Ex-mark: Ex db IIC T6 Gb Ex tb IIIC T80°C Db Ⓔx II 2 G Ex db IIC T6 Gb Ⓔx II 2 D Ex tb IIIC T80°C Db Communication Method: Upstream: Fiber Optic or Ethernet Cable, 4G, 5G Downstream: Zigbee Wireless, Power Line Communication Mounting: Wall type	P8/33