HIGHLIGHT MSL-PHL Specifications

About Us,

MSL USA's LED streetlights are trusted by electrical contractors, government agencies, and project managers across the United States. Our selection of streetlights include fixtures with dusk to dawn photocell technology as well as weather resistant coating to ensure smooth operation through harsh weather conditions. We also offer solar powered streetlights for environmentally friendly projects. We advanced production technology, we deliver smart lighting solutions for streets, gardens, residential areas, and many more…

MSL-PHL is cutting-edge lighting solution is meticulously designed to withstand the test of time, minimizing maintenance and replacement costs while delivering consistent, high-quality illumination year after year. Built with premium-grade materials, this LED streetlight is engineered to handle a wide range of environmental conditions, from extreme heat to heavy rain and strong winds. Its weatherproof and corrosion-resistant design ensures unwavering performance even in the most challenging outdoor settings, making it ideal for streets, highways, parking lots, and public places.

Technical Specifications

Model	
Led power	10W-240W
Luminous flux	135lm/W~145lm/W
Voltage	AC 100~277V / AC 200~480 V
PF	0.95
Driver	Sosen / Inventronics
Color Rendering Index (CRI)	≥ 70
Fixture color	
Color temperature	4500~5500K (2500~5500K optional)
Distribution type	Type II / Type III
Body Material	Die-cast aluminum housing with integral mounting for strength and durability
IP/ IK Rating	IP66 / IK09
Motion Sensor	No Motion Sensor
Operating Temperature	-45°C to +45°C (-49°F to 113°F)
Warranty	5 Years

FEATURES

High quality Sosen driver + Lumileds 3030 LED chips
Beam angle of 70x140°, 70x150°, 90x145°
Multi-voltage choices are available in 100-277VAC and 277-480V AC
Easy Installation, Direct Slide-in Mount.
CE, RoHS, ETL and DLC approval IP66, water and dust proof.
10KV surge protection and 3G Vibration.
5 Years Warranty.

APPLICATIONS

IP66 rated waterproof, state-of-the-art, aesthetically pleasant compact design street lights with no exposed electronics or wiring are safe to use in any harsh extreme outdoor conditions, such as motorways, major roadways, crossings, parking lots, walkways and general large areas.

Roads & Motorways	Urban & Residential Streets	Bike & Pedestrian Paths	Squares & Pedestrian Areas
Bridges	Large Areas	Railway Station & Metros	Car Parks

PERFORMANCE

⚡		10W~240W
☀		135lm/W~145lm/W
LEDS		Philips Lumileds / Cree
⚡		AC 100~277V / AC 200~480 V
PF		0.95 min
⏻		Inventronics / Sosen
CRI		≥ 70
CCT		4500~5500K（2500~5500K optional）
💡100K		L70>100,000hours
IES		Type Ⅱ / Type Ⅲ
💧		IP66
IK		IK09
⊘		3G Vibration
🌡		Operating Temperature:-45°C to +45°C (-49°F to 113°F) Storing Temperature:-45°C to +80°C (-49°F to 176°F)

IP66
Water and Dust Proof.

SPECIFICATIONS

	Power	LEDs Qty	Lens Qty	Output Current	Efficacy (IES)	Total Lumens	N.W	Product Dimension
MSL-PHL-30	10W	24	3	73mA	145lm/w	1450lm	4.0kg/8.8Ibs	520×212×90mm 20.5x8.3x3.5in
	15W	24	3	93mA	139lm/w	2085lm		
	20W	30	3	100mA	138lm/w	2760lm		
	25W	36	3	106mA	139lm/w	3614lm		
	30W	36	3	125mA	135lm/w	4050lm		
MSL-PHL-60	35W	48	6	106mA	135lm/w	4725lm	5.3kg/11.7Ibs	616×259×186mm 24.3x10.2x7.3in
	40W	60	6	100mA	139lm/w	5560lm		
	45W	60	6	111mA	136lm/w	6120lm		
	50W	72	6	106mA	140lm/w	7000lm		
	60W	72	6	125mA	135lm/w	8100lm	5.4kg/11.9Ibs	
MSL-PHL-90	65W	80	8	120mA	137lm/w	8905lm	5.4kg/11.9Ibs	
	70W	80	8	130mA	135lm/w	9450lm		
	75W	96	8	120mA	139lm/w	10425lm		
	80W	96	8	126mA	137lm/w	10960lm		
	90W	96	8	143mA	135lm/w	12150lm	5.5kg/12.1Ibs	
MSL-PHL-120	95W	120	12	123mA	139lm/w	13205lm	7.4kg/16.3Ibs	677×305×187mm 26.7x12x7.4in
	100W	120	12	130mA	137lm/w	13700lm		
	110W	144	12	120mA	139lm/w	15290lm	7.5kg/16.5Ibs	
	120W	144	12	130mA	135lm/w	16200lm		
MSL-PHL-150	125W	150	15	130mA	135lm/w	16875lm	7.5kg/16.5Ibs	
	150W	180	15	130mA	135lm/w	20250lm		
MSL-PHL-200	175W	200	20	135mA	135lm/w	23625lm	11.5kg/25.4Ibs	850×366×198mm 33.5x14.4x7.8in
	200W	240	20	130mA	135lm/w	27000lm		
	220W	288	24	120mA	139lm/w	30580lm	11.7kg/25.8Ibs	
	240W	288	24	130mA	135lm/w	32400lm		

LIGHT SPILL CONTROL

Any light that falls beyond the area that is being illuminated that is not intentional or required is considered spill light. Besides the special designed optics, kinds of different shields used to control the light distribution well. Limit light pollution and no light for dark sky.

Street Side Shields(Front)

Order code	Description	Shield Depth	
MSL-PHL-01-XX	MSL-PHL-30	1.5 ' / 3.8cm	3 ' / 7.6cm
MSL-PHL-02-XX	MSL-PHL-60 MSL-PHL-90	1.5 ' / 3.8cm	3 ' / 7.6cm
MSL-PHL-03-XX	MSL-PHL-120 MSL-PHL-150	2 ' / 5.1cm	4 ' / 10.2cm
MSL-PHL-04-XX	MSL-PHL-200	2 ' / 5.1cm	4 ' / 10.2cm

Street Side Shields(LQR)

Order code	Description	Shield Dep	
MSL-PHL-01-XX	MSL-PHL-30	1.5 ' / 3.8cm	3 ' / 7.6cm
MSL-PHL-02-XX	MSL-PHL90 MSL-PHL-60	1.5 ' / 3.8cm	3 ' / 7.6cm
MSL-PHL-03-XX	MSL-PHL-120 MSL-PHL-150	2 ' / 5.1cm	4 ' / 10.2cm
MSL-PHL-04-XX	MSL-PHL-200	2 ' / 5.1cm	4 ' / 10.2cm

House Side Shields(Back)

Order code	Description	Shield Depth
MSL-PHL-01-XX	MSL-PHL-30	3 ' / 7.6cm
MSL-PHL-02-XX	MSL-PHL-60 MSL-PHL-90	3 ' / 7.6cm
MSL-PHL-03-XX	MSL-PHL-120 MSL-PHL-150	4 ' / 10.2cm
MSL-PHL-04-XX	MSL-PHL-200	5 ' / 12.7cm

PHOTOMETRICS
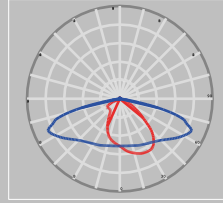
70 x 150 (TYPE II-S)
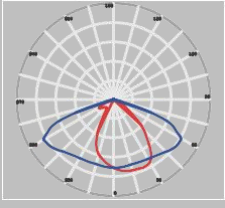
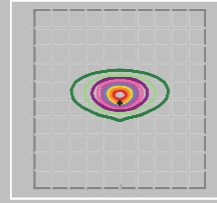——— 0.0-180.0
——— 90.0-270.0
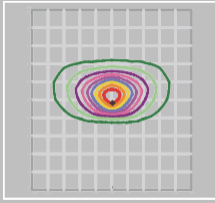
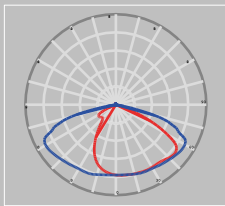Mount Height: 19.6'

70 x 150 (TYPE II-M)
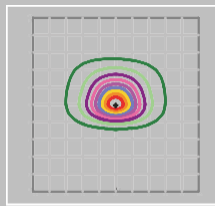

——— 0.0-180.0
——— 90.0-270.0

Mount Height:26.2'

70 x 150 (TYPE III-S)

——— 0.0-180.0
——— 90.0-270.0

Mount Height: 19.6'

INSTALLATION

1. Unlock the screws, adjust the angle of slip fitter.
2. Feed the power cord through the pole and make wiring.
3. Insert the fixtures into the pole, lock the screws.

Unlock
Screw
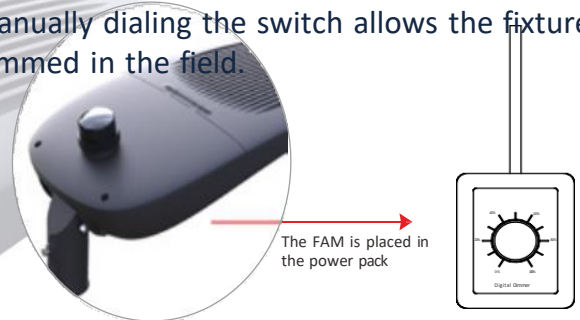

Driver Box

NEMA
Socket

Wiring

Slip Fitter

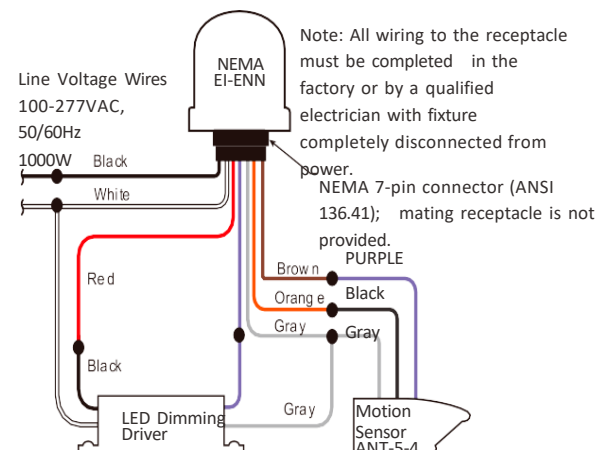# ELECTRICS

Field Adjustable Output Module

The Field Adjustable Output Module is a factory-installed voltage regulating device that is connected to the gray (-) and violet (+) 0-10V dimming leads of the LED driver.

Manually dialing the switch allows the fixture to be dimmed in the field.

The FAM is placed in the power pack

Future Ready NEMA/Zhaga Connection

Ready NEMA or Zhaga socket to enable further control of streetlight from simple photocell to smart city controller node.
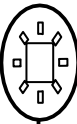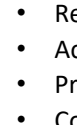
Note: All wiring to the receptacle must be completed in the factory or by a qualified electrician with fixture completely disconnected from power.
NEMA 7-pin connector (ANSI 136.41); mating receptacle is not provided.

Line Voltage Wires 100-277VAC, 50/60Hz
1000W

NEMA EI-ENN

Black
White
Red
Black

Brown
Orange
Gray

PURPLE
Black
Gray

LED Dimming Driver

Gray

Motion Sensor ANT-5-4

10/13

A FUTURE PROOF SOLUTION

Smart City

iNET^{TM} Intelligent Lighting Monitor & Control System is a cloud based wireless smart system designated for lighting management.

With gateways + control node., iNET^{TM} System monitors lights performance status, collects operation data, controls lights on/off or dimming, and sends alarm in case of fault detected.
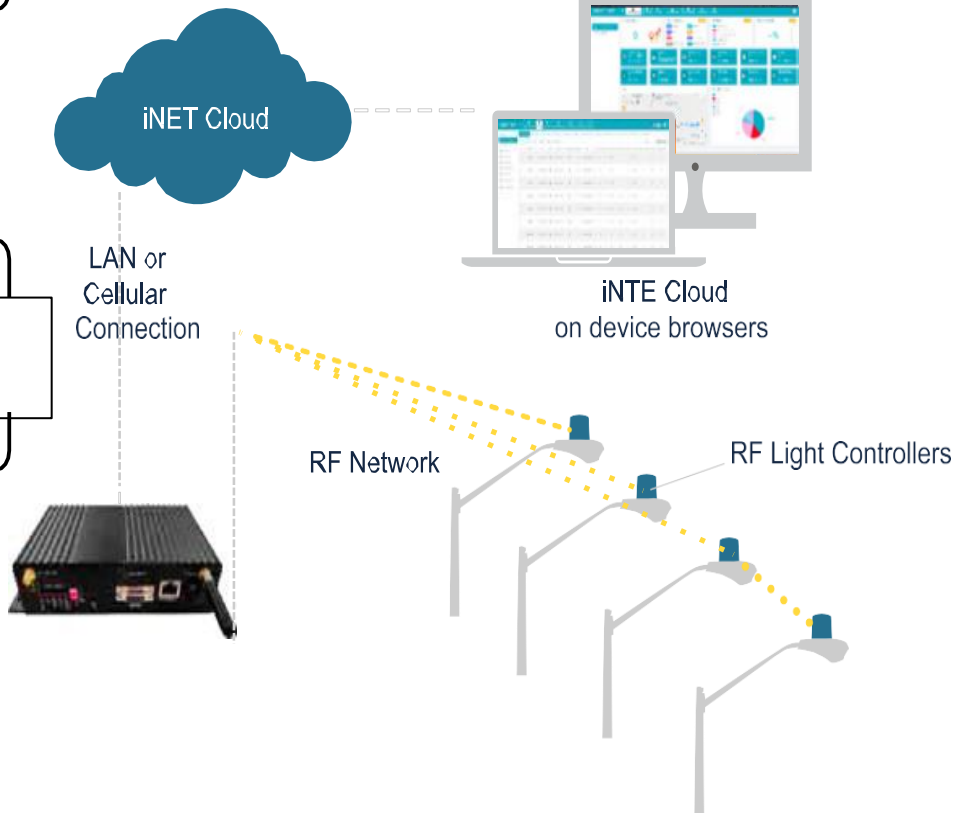
Automatic light ON/OFF & Dimming Control
- By time settings
- ON/OFF or dimming with motion sensor detection
- ON/OFF or dimming photocell detection

Accurate Operation & Fault Monitor
- Real-time monitor on each light working status
- Accurate report on fault detected
- Provide location on fault no patrol required
- Collect each light operation data, such as voltage, current power consumption

Extra I/O Ports for Sensor Expandability
- Environment Monitor
- Traffic monitor
- Security Surveillance
- Seismic Activities Monitor

Reliable Mesh Network
- Self-proprietary wireless control node
- Reliable node to node, gateway to node communication
- Up to 1000 nodes per network
- Max. network diameter 2000 m

Easy to use Platform
- **E**asy monitor on each and all lights status
- Support lighting policy remote set-up
- Cloud server accessible from computer or handheld device

iNET Cloud

LAN or Cellular Connection

iNTE Cloud on device browsers

RF Network

RF Light Controllers

Uses and Applications Guide

USES AND APPLICATIONS GUIDE

Streets Lighting	
Parking Lots	
Residential Roads	
Public Parks	
Sports Lighting	

Ordering Guide

Model	LED Power	Dimmability	LEDS	Distribution type	LED Color Temp	Driver	Input Voltage	Fixture color	Mount Option
HIGHLIGHT MSL-PHL	10W 15W 20W 25W 30W 35W 40W 45W 50W 60W 65W 70W 75W 80W 90W 95W 100W 110W 120W 125W 150W 175W 200W 220W 240W	00-Non Dimmable 01-Dimmable 02-Field adjustable output module	1-Cree 2-Philips lumiled	2S- Type II S 2M- Type II M 3S- Type III S 4- Type IV 5- Type V	1- 25-35K 2- 35-45K 3- 45-55K 4- 60-70K	1-Sosen	1- AC 100-277V 2- AC 200-480V	GR-Grey	SP- Slip Fitter