

IL450 Series

HIGH MAST APPLICATION LED LUMINAIRE



IL450 Series

LED High Mast Lighting



Product Information

The IL450 Series is the first IP68-rated LED high mast luminaire designed to replace high wattage traditional HID fixtures in harsh environments and difficult to reach areas such as freight terminals, highway interchanges and airplane hangars.

This ultra reliable fixture provides a high output lighting for large spaces and incorporates patented thermal technology enabling extended lumen maintenance and fixture lifespan, with virtually zero fixture maintenance. The IL450 offers wide variety of versatile mounting systems including a tandem mount for doubling its light output for areas requiring ultra high brightness.

Patent No. US 8,272,765 B2 - US 8,757,842 B2 - US 9,383,084 B2
Other US and international patents pending

Applications

- Manufacturing Plants
- Shipping Ports
- Rail Yards
- Airplane Hangars
- Parking Lots
- Lock and Dams
- Correctional Facilities
- High Speed Interchanges
- Ski Lifts

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Years Warranty



Smart Control



Wet Location



Impact Resistance

Advantages of IL450

- Technologically advanced LED high mast light fixture
- Available in 100 ~ 220 Watt configurations with various optics
- Ultra-bright industry leading high efficacy up to 170 lm / W
- Proprietary reflector optics enabling glare-free uniform lighting for all working environments, eliminating the need for costly and fragile plastic lenses
- Advanced thermal technology enables low LED junction temperatures (Tj) for maintenance free long life
- IP68 rated tri-proof (dust, vapor & water-proof) luminaire
- Optional wireless smart control system with daylight sensor enabling greater savings and flexibility
- Available with tandem mounting option for various high mast applications
- Titanium rated high efficiency LED driver with smart circuitry
- L70 ≥ 150,000 hours with an exceptional 10-year limited warranty
- Designed and engineered in the USA

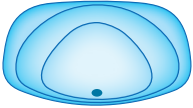
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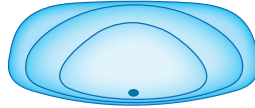
Optic Options

02 - Type II / wall mount & perimeter lighting applications

S - Short

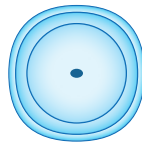


M - Medium



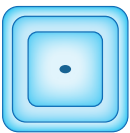
R5 - Type V Round / symmetric for low-mid-high bay, parking garages and flood applications

M - Medium



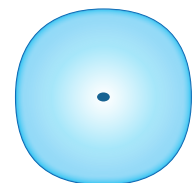
S5 - Type V Square / symmetric for high-bay, aisle, high-mast and flood applications

S - Short



F5 - Type V Opaque - Frosted / symmetric for ultra uniform & low glare applications

L - Long



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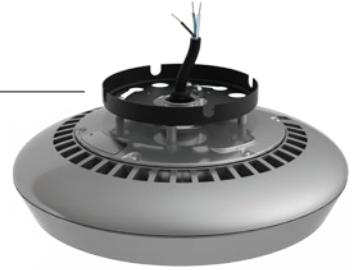
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Mounting Options



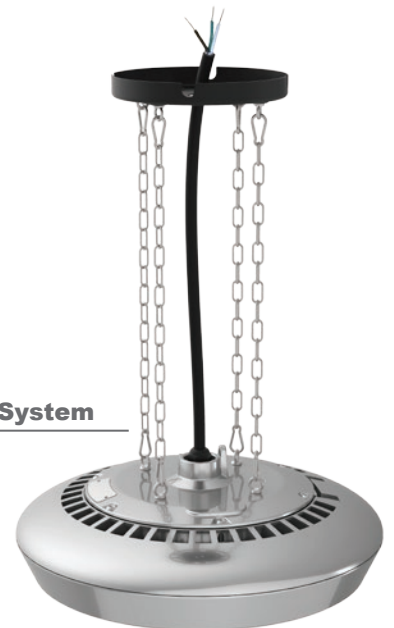
Swivel Mounting System - SWL

SST - Snap & Turn
Surface Mounting System

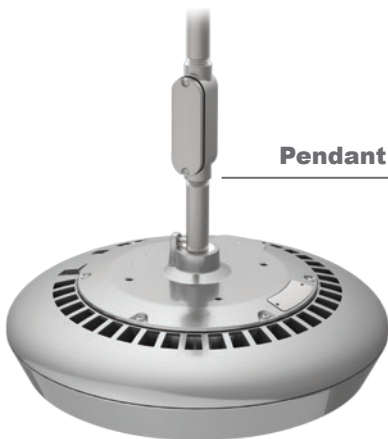


Wall Mounting System - W90

CH4 - Chain Mounting System



Pendant Mounting System - PDS



Tandem Mounting System - TMS



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Ordering Information

IL45	Wattage	Voltage	Optics	Pitch	CCT	Driver & Control *	Mounting **
	100 = 100W 125 = 125W 150 = 150W 185 = 185W 220 = 220W	UV = 100-277VAC HV = 200-480VAC DV = 127-390VDC	02 = Type II R5 = Type V Round S5 = Type V Square F5 = Type V Frosted	S = Short M = Medium L = Long	30 = 3000K 40 = 4000K 50 = 5000K	ND = Non-Dimmable DM = Dimmable DS = Daylight Sensor SC = Smart Control	PDS = Pendant Mount SST = Snap & Turn Mount CH4 = 4 Chain Mount W90 = 90° Wall Mount SWL = Swivel Mount TMS = Tandem Mount

NOTE: Gray is the standard exterior color.

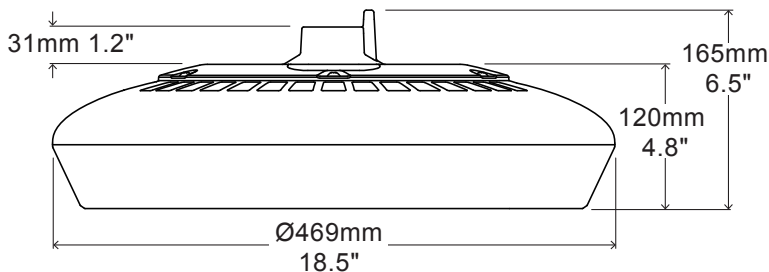
* Smart control & daylight sensor available with ZHAGA standard receptacle module.

** PDS is the standard mounting system, with 1" NPT threaded hole.

Example

Part Number	Part Description
IL45150UV-S5S-50DS-TMS	LED High Mast Light / 150Watt / 100-277VAC / Type V Square / Short Pitch / 5000K Cool White / Non Dimmable / Tandem Mount

External Dimensions



Packaging Information

Quantity	Dimensions (LxWxH)	Weight
1	50 x 50 x 23 cm 19.7x 19.7 x 9 in	12.5 kg 27.5 lbs



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LED High Mast Lighting

Specification - Type II Short

Fixture Watts	100 W	125 W	150 W	185 W	220 W
Lumens (Total)*	15,100 lm	18,625 lm	21,450 lm	25,160 lm	28,600 lm
Efficacy *	151 lm / W	149 lm / W	143 lm / W	136 lm / W	130 lm / W
Number of LEDs & Driving Current	96@355mA	96@440mA	96@515mA	96@625mA	96@730mA
T _s - Solder Point Temp *	52°C / 125°F	55°C / 131°F	59°C / 138°F	64°C / 147°F	68°C / 154°F
L70 Rating @ T _a 25°C	>185K hours	>180K hours	>175K hours	>160K hours	>150K hours
Operational Temperature (T _a)	-40° ~ 55°C / -40° ~ 131°F				
Input Voltage	100~277VAC 47~63Hz Optional 200~480VAC / 127~390VDC				
LED Model	Lumileds / Nichia / Cree				
CRI	>75				
Lighting Control	Dimmable (0-10V, PWM) / Smart Control / Daylight Sensor				
Warranty	10-Year Limited				
Storage Temp. / Humidity	-50° ~ 80°C / -58° ~ 176°F / IP68 Rated Fixture				
Transient Surge Protection	10kV / 5kA (L-L, L-G) Optional 20kV / 10kA				

* Test data @ T_a: 25°C. All lumen values have ±7% tolerance

Specification - Type II Medium

Fixture Watts	100 W	125 W	150 W	185 W	220 W
Lumens (Total)*	14,600 lm	17,875 lm	20,700 lm	24,235 lm	27,500 lm
Efficacy *	146 lm / W	143 lm / W	138 lm / W	131 lm / W	125 lm / W
Number of LEDs & Driving Current	96@355mA	96@440mA	96@515mA	96@625mA	96@730mA
T _s - Solder Point Temp *	52°C / 125°F	55°C / 131°F	59°C / 138°F	64°C / 147°F	68°C / 154°F
L70 Rating @ T _a 25°C	>185K hours	>180K hours	>175K hours	>160K hours	>150K hours
Operational Temperature (T _a)	-40° ~ 55°C / -40° ~ 131°F				
Input Voltage	100~277VAC 47~63Hz Optional 200~480VAC / 127~390VDC				
LED Model	Lumileds / Nichia / Cree				
CRI	>75				
Lighting Control	Dimmable (0-10V, PWM) / Smart Control / Daylight Sensor				
Warranty	10-Year Limited				
Storage Temp. / Humidity	-50° ~ 80°C / -58° ~ 176°F / IP68 Rated Fixture				
Transient Surge Protection	10kV / 5kA (L-L, L-G) Optional 20kV / 10kA				

* Test data @ T_a: 25°C. All lumen values have ±7% tolerance

IL450 Series

LED High Mast Lighting

Specification - Type V Round Medium

Fixture Watts	100 W	125 W	150 W	185 W	220 W
Lumens (Total)*	16,600 lm	19,625 lm	22,800 lm	27,750 lm	32,340 lm
Efficacy *	166 lm / W	157 lm / W	152 lm / W	150 lm / W	147 lm / W
Number of LEDs & Driving Current	112@305mA	112@375mA	112@440mA	112@535mA	112@625mA
T _s - Solder Point Temp *	50°C / 122°F	53°C / 127°F	56°C / 133°F	61°C / 142°F	66°C / 151°F
L70 Rating @ T _a 25°C	>185K hours	>180K hours	>175K hours	>160K hours	>150K hours
Operational Temperature (T _a)	-40° ~ 55°C / -40° ~ 131°F				
Input Voltage	100~277VAC 47~63Hz Optional 200~480VAC / 127~390VDC				
LED Model	Lumileds / Nichia / Cree				
CRI	>75				
Lighting Control	Dimmable (0-10V, PWM) / Smart Control / Daylight Sensor				
Warranty	10-Year Limited				
Storage Temp. / Humidity	-50° ~ 80°C / -58° ~ 176°F / IP68 Rated Fixture				
Transient Surge Protection	10kV / 5kA (L-L, L-G) Optional 20kV / 10kA				

* Test data @ T_a: 25°C. All lumen values have ±7% tolerance

Specification - Type V Square Short

Fixture Watts	100 W	125 W	150 W	185 W	220 W
Lumens (Total)*	15,700 lm	18,500 lm	21,450 lm	26,085 lm	30,360 lm
Efficacy *	157 lm / W	148 lm / W	143 lm / W	141 lm / W	138 lm / W
Number of LEDs & Driving Current	112@305mA	112@375mA	112@440mA	112@535mA	112@625mA
T _s - Solder Point Temp *	51°C / 124°F	54°C / 129°F	57°C / 135°F	62°C / 144°F	68°C / 154°F
L70 Rating @ T _a 25°C	>185K hours	>180K hours	>175K hours	>160K hours	>150K hours
Operational Temperature (T _a)	-40° ~ 55°C / -40° ~ 131°F				
Input Voltage	100~277VAC 47~63Hz Optional 200~480VAC / 127~390VDC				
LED Model	Lumileds / Nichia / Cree				
CRI	>75				
Lighting Control	Dimmable (0-10V, PWM) / Smart Control / Daylight Sensor				
Warranty	10-Year Limited				
Storage Temp. / Humidity	-50° ~ 80°C / -58° ~ 176°F / IP68 Rated Fixture				
Transient Surge Protection	10kV / 5kA (L-L, L-G) Optional 20kV / 10kA				

* Test data @ T_a: 25°C. All lumen values have ±7% tolerance

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Specification - Type V Frosted Long

Fixture Watts	100 W	125 W	150 W	185 W	220 W
Lumens (Total)*	14,200 lm	16,750 lm	19,500 lm	23,680 lm	27,500 lm
Efficacy *	142 lm / W	134 lm / W	130 lm / W	128 lm / W	125 lm / W
Number of LEDs & Driving Current	112@305mA	112@375mA	112@440mA	112@535mA	112@625mA
T _s - Solder Point Temp *	51°C / 124°F	54°C / 129°F	56°C / 133°F	61°C / 142°F	67°C / 153°F
L70 Rating @ T _a 25°C	>185K hours	>180K hours	>175K hours	>160K hours	>150K hours
Operational Temperature (T _a)	-40° ~ 55°C / -40° ~ 131°F				
Input Voltage	100~277VAC 47~63Hz Optional 200~480VAC / 127~390VDC				
LED Model	Lumileds / Nichia / Cree				
CRI	>75				
Lighting Control	Dimmable (0-10V, PWM) / Smart Control / Daylight Sensor				
Warranty	10-Year Limited				
Storage Temp. / Humidity	-50° ~ 80°C / -58° ~ 176°F / IP68 Rated Fixture				
Transient Surge Protection	10kV / 5kA (L-L, L-G) Optional 20kV / 10kA				

* Test data @ T_a: 25°C. All lumen values have ±7% tolerance

NOTE: Light intensities measured directly below fixture