

# IL450 Series

## LED High Mast Lighting



### 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

### Applications

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



Years Warranty



Smart Control



Wet Location



Impact Resistance

# IL450 Series

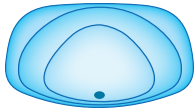
## LED High Mast Lighting

### Optic Options

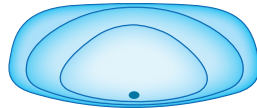
**02 - Type II** / wall mount & perimeter lighting applications

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**S - Short**



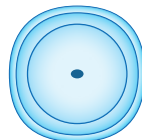
**M - Medium**



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

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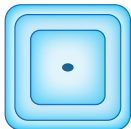
**M - Medium**



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

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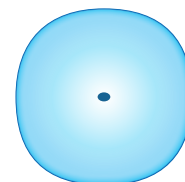
**S - Short**



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

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**L - Long**



# IL450 Series

## LED High Mast Lighting

### Mounting Options



#### Pendant Mounting System

Part Number	Part Description
PDS-IL45	Pendant Mounting Interface / 3/4" Pipe Not Included



#### Snap & Turn Surface Mounting System

Part Number	Part Description
SST-IL45-B	Snap & Turn Surface Mount Bracket / Steel Black



#### Chain Mounting System

Part Number	Part Description
CH4-IL45-45C	4 Link Chain Chandelier System / 18" (45cm) / Chrome Steel
CH4-IL45-90C	4 Link Chain Chandelier System / 36" (90cm) / Chrome Steel



#### Wall Mounting System

Part Number	Part Description
W90-IL45-45B	90° Wall Mount Elbow Bracket / 18" (45cm) / Galvanized Steel Black
W90-IL45-75B	90° Wall Mount Elbow Bracket / 30" (75cm) / Galvanized Steel Black



#### Swivel Mounting System

Part Number	Part Description
SWL-IL45-SS	Variable Angle Swivel Mounting Bracket / Stainless Steel



#### Tandem Mounting System

Part Number	Part Description
TMS-IL45-45SS	Tandem Mounting System / 18" (45cm) / Stainless Steel
TMS-IL45-90SS	Tandem Mounting System / 36" (90cm) / Stainless Steel

# IL450 Series

LED High Mast Lighting - 100Watt

## 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.

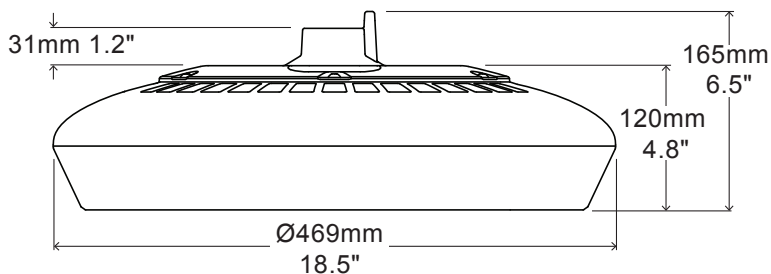
\* Smart control & daylight sensor available with ZHAGA standard receptacle module.

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

## Example

Part Number	Part Description
<b>IL45100UV-S5S-50MD-TMS</b>	LED High Mast Light / 100Watt / 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 19.7 x 19.7 x 9 in	12.5 kg 27.5 lbs



# IL450 Series

LED High Mast Lighting - 100Watt

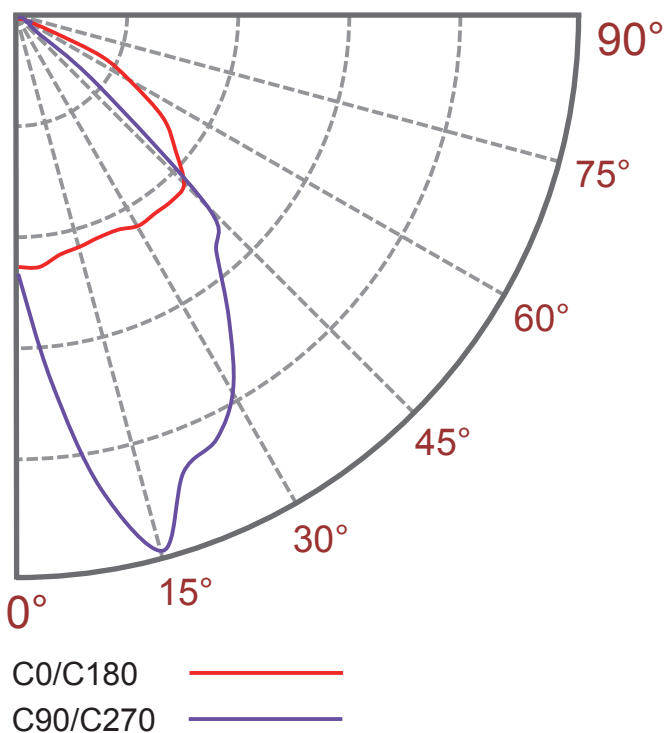
## Specification - Type II Short

Fixture Watts	100 W
Lumens (Total)*	15,100 lm
Efficacy *	151 lm / W
Number of LEDs & Driving Current	96@355mA
T <sub>s</sub> - Solder Point Temp *	52°C / 125°F
L70 Rating @ T <sub>a</sub> 25°C	>185K hours
Operational Temperature (T <sub>a</sub> )	-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<sub>a</sub>: 25°C. All lumen values have ±7% tolerance

NOTE: Light intensities measured directly below fixture

## Light Distribution Curve



## Zonal Lumen Summary

Zone (°)	Lumens	% Fixture
0-30	6,131	40.6%
0-40	9,664	64.0%
0-60	14,541	96.3%
0-90	15,085	99.9%
0-180	15,100	100.0%

# IL450 Series

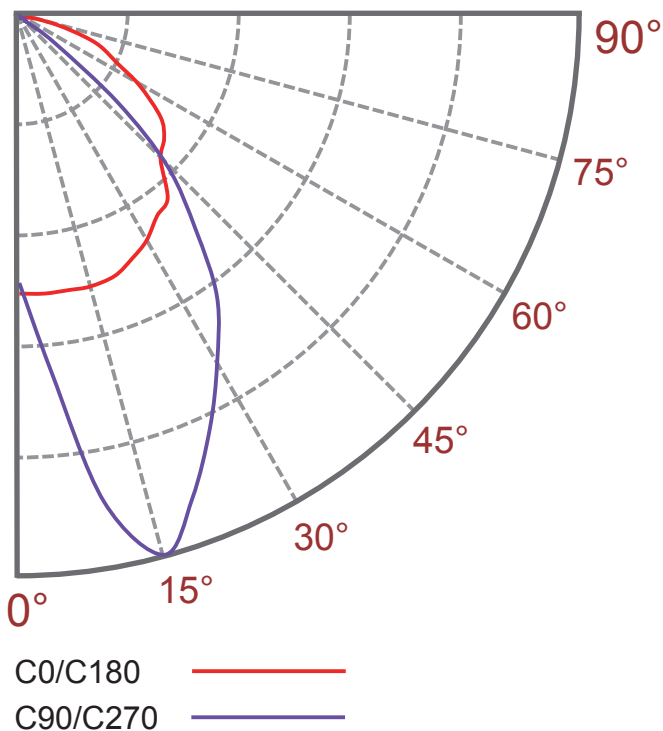
LED High Mast Lighting - 100Watt

## Specification - Type II Medium

Fixture Watts	100 W
Lumens (Total)*	14,600 lm
Efficacy *	146 lm / W
Number of LEDs & Driving Current	96@355mA
T <sub>s</sub> - Solder Point Temp *	52°C / 125°F
L70 Rating @ T <sub>a</sub> 25°C	>185K hours
Operational Temperature (T <sub>a</sub> )	-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<sub>a</sub>: 25°C. All lumen values have ±7% tolerance  
 NOTE: Light intensities measured directly below fixture

### Light Distribution Curve



### Zonal Lumen Summary

Zone (°)	Lumens	% Fixture
0-30	4,949	33.9%
0-40	7,826	53.6%
0-60	12,498	85.6%
0-90	14,600	100.0%
0-180	14,600	100.0%

# IL450 Series

LED High Mast Lighting - 100Watt

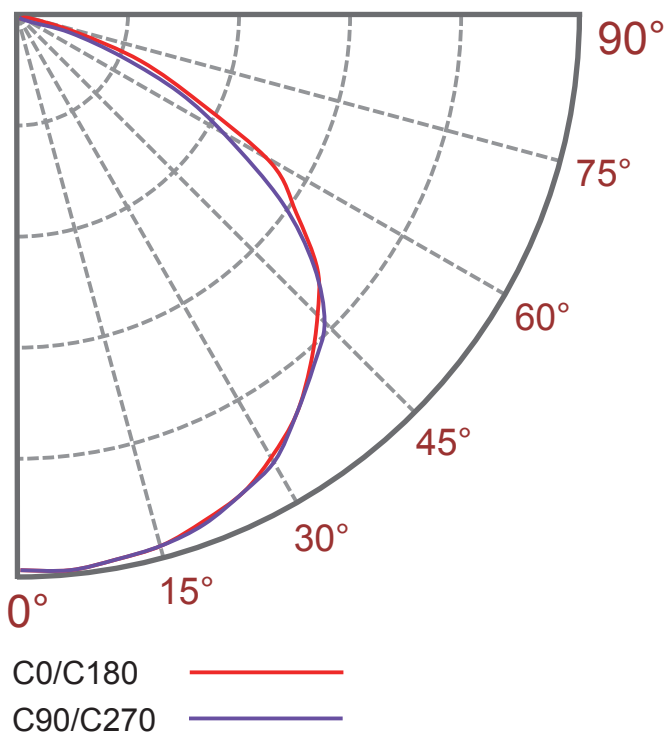
## Specification - Type V Round Medium

Fixture Watts	100 W
Lumens (Total)*	16,600 lm
Efficacy *	166 lm / W
Number of LEDs & Driving Current	112@305mA
T <sub>s</sub> - Solder Point Temp *	50°C / 122°F
L70 Rating @ T <sub>a</sub> 25°C	>185K hours
Operational Temperature (T <sub>a</sub> )	-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<sub>a</sub>: 25°C. All lumen values have ±7% tolerance

NOTE: Light intensities measured directly below fixture

### Light Distribution Curve



### Zonal Lumen Summary

Zone (°)	Lumens	% Fixture
0-30	4,548	27.4%
0-40	7,652	46.1%
0-60	14,210	85.6%
0-90	16,600	100.0%
0-180	16,600	100.0%

# IL450 Series

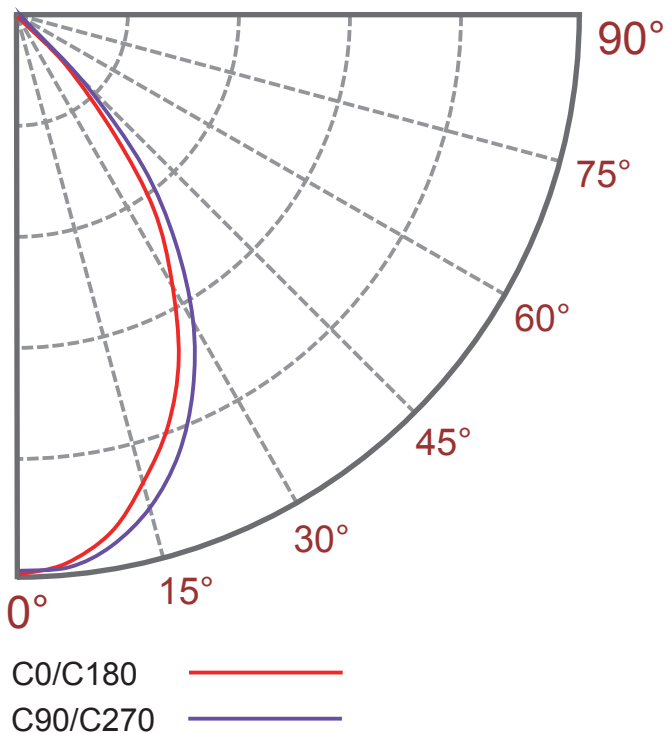
LED High Mast Lighting - 100Watt

## Specification - Type V Square Short

Fixture Watts	100 W
Lumens (Total)*	15,700 lm
Efficacy *	157 lm / W
Number of LEDs & Driving Current	112@305mA
T <sub>s</sub> - Solder Point Temp *	51°C / 124°F
L70 Rating @ T <sub>a</sub> 25°C	>185K hours
Operational Temperature (T <sub>a</sub> )	-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<sub>a</sub>: 25°C. All lumen values have ±7% tolerance  
NOTE: Light intensities measured directly below fixture

### Light Distribution Curve



### Zonal Lumen Summary

Zone (°)	Lumens	% Fixture
0-30	9,389	59.8%
0-40	13,424	85.5%
0-60	15,648	99.9%
0-90	15,700	100.0%
0-180	15,700	100.0%



# IL450 Series

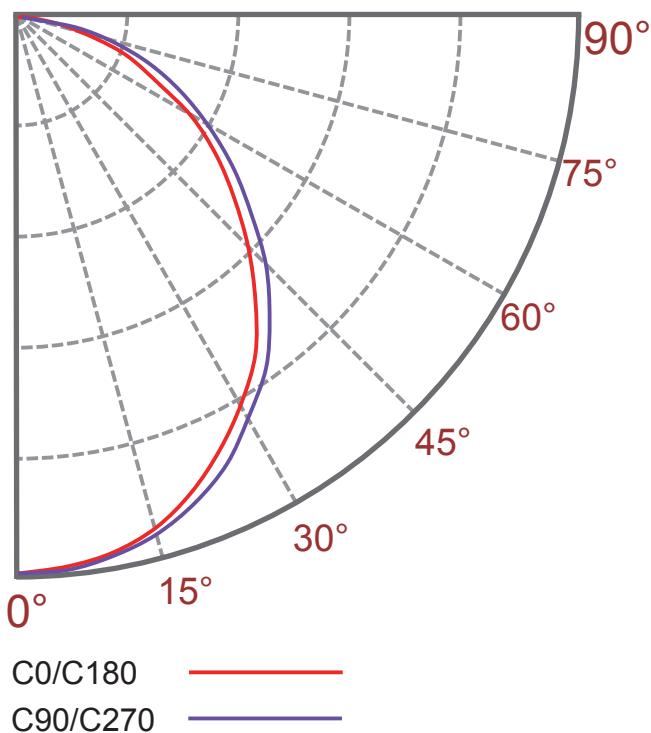
LED High Mast Lighting - 100Watt

## Specification - Type V Frosted Long

Fixture Watts	100 W
Lumens (Total)*	14,200 lm
Efficacy *	142 lm / W
Number of LEDs & Driving Current	112@305mA
T <sub>s</sub> - Solder Point Temp *	51°C / 124°F
L70 Rating @ T <sub>a</sub> 25°C	>185K hours
Operational Temperature (T <sub>a</sub> )	-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<sub>a</sub>: 25°C. All lumen values have ±7% tolerance  
NOTE: Light intensities measured directly below fixture

### Light Distribution Curve



### Zonal Lumen Summary

Zone (°)	Lumens	% Fixture
0-30	4,175	29.4%
0-40	6,731	47.4%
0-60	11,474	80.8%
0-90	14,157	99.7%
0-180	14,200	100.0%