

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

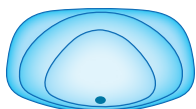
IL450 Series

LED High Mast Lighting

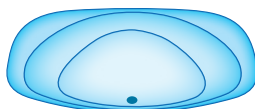
Optic Options

02 - Type II / wall mount & perimeter lighting applications

S - Short

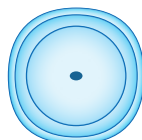


M - Medium



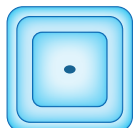
R5 - Type V Round / symmetric for low-mid-high bay, parking garages and flood applications

M - Medium



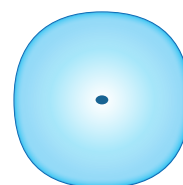
S5 - Type V Square / symmetric for high-bay, aisle, high-mast and flood applications

S - Short



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

L - Long



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 - 220Watt

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.

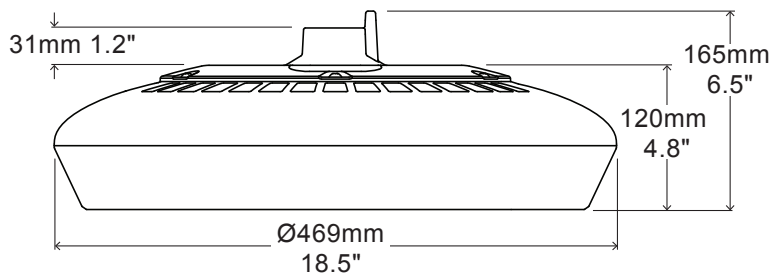
* Smart control & daylight sensor available with ZHAGA standard receptacle module.

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

Example

Part Number	Part Description
IL45220UV-S5S-50MD-TMS	LED High Mast Light / 220Watt / 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



IL450 Series

LED High Mast Lighting - 220Watt

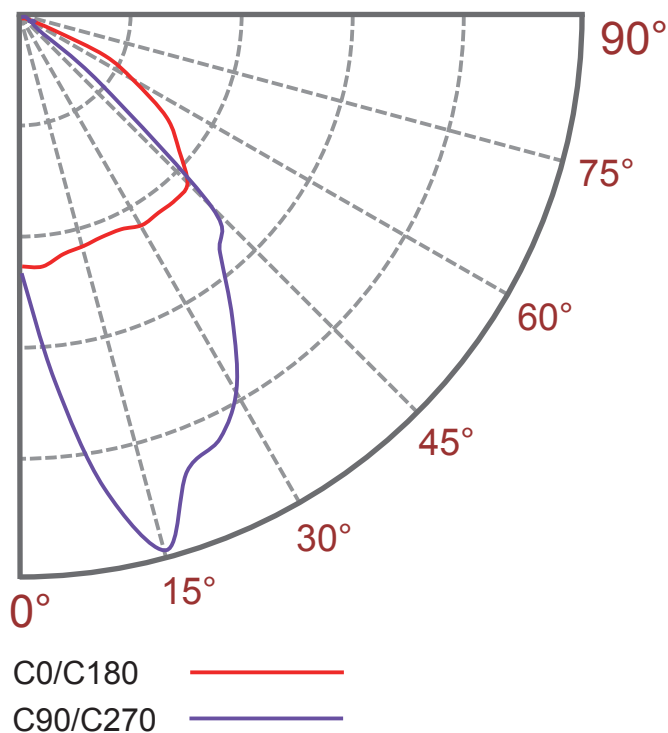
Specification - Type II Short

Fixture Watts	220 W
Lumens (Total)*	28,600 lm
Efficacy *	130 lm / W
Number of LEDs & Driving Current	96@730mA
T _s - Solder Point Temp *	68°C / 154°F
L70 Rating @ T _a 25°C	>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

Light Distribution Curve



Zonal Lumen Summary

Zone (°)	Lumens	% Fixture
0-30	11,612	40.6%
0-40	18,304	64.0%
0-60	27,542	96.3%
0-90	28,571	99.9%
0-180	28,600	100.0%

IL450 Series

LED High Mast Lighting - 220Watt

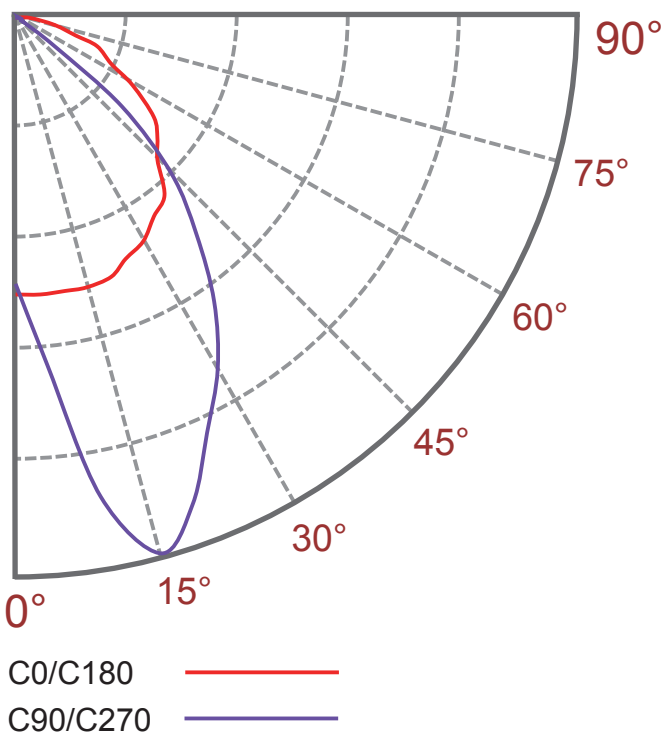
Specification - Type II Medium

Fixture Watts	220 W
Lumens (Total)*	27,500 lm
Efficacy *	125 lm / W
Number of LEDs & Driving Current	96@730mA
T _s - Solder Point Temp *	68°C / 154°F
L70 Rating @ T _a 25°C	>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

Light Distribution Curve



Zonal Lumen Summary

Zone (°)	Lumens	% Fixture
0-30	9,240	33.6%
0-40	14,630	53.2%
0-60	23,485	85.4%
0-90	27,418	99.7%
0-180	27,500	100.0%

IL450 Series

LED High Mast Lighting - 220Watt

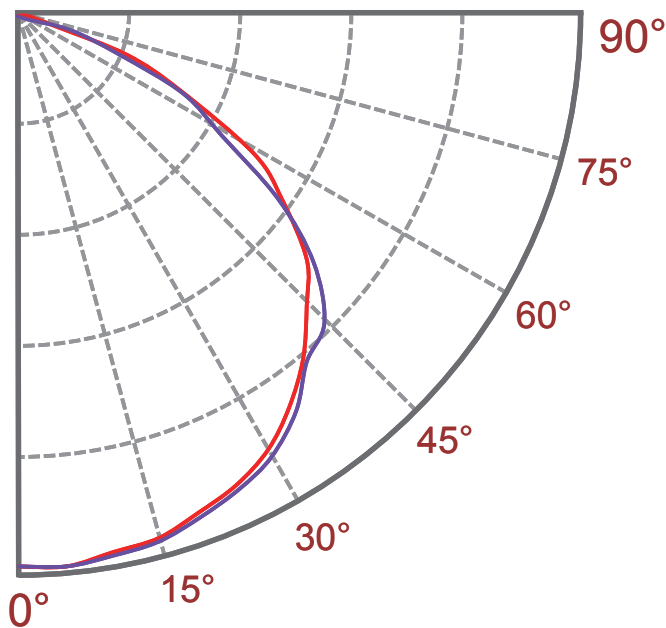
Specification - Type V Round Medium

Fixture Watts	220 W
Lumens (Total)*	32,340 lm
Efficacy *	147 lm / W
Number of LEDs & Driving Current	112@625mA
T _s - Solder Point Temp *	66°C / 151°F
L70 Rating @ T _a 25°C	>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

Light Distribution Curve



C0/C180 —
 C90/C270 —

Zonal Lumen Summary

Zone (°)	Lumens	% Fixture
0-30	8,958	27.7%
0-40	15,006	46.4%
0-60	27,424	84.8%
0-90	32,340	100.0%
0-180	32,340	100.0%

IL450 Series

LED High Mast Lighting - 220Watt

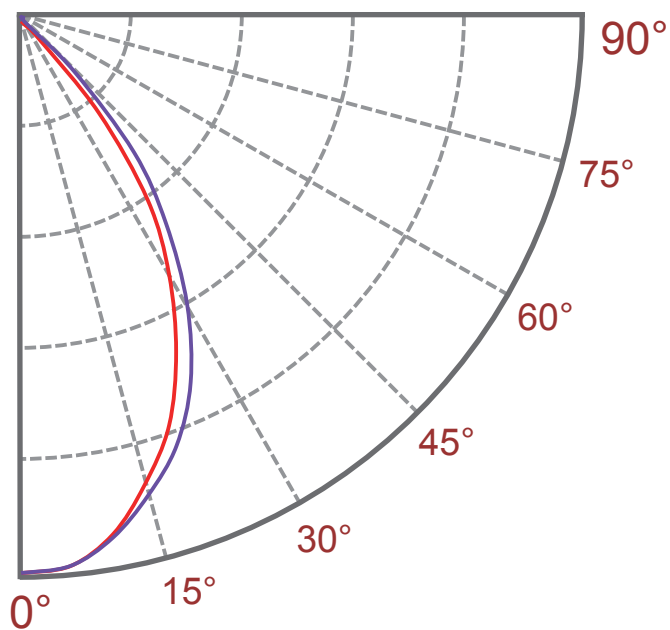
Specification - Type V Square Short

Fixture Watts	220 W
Lumens (Total)*	30,360 lm
Efficacy *	138 lm / W
Number of LEDs & Driving Current	112@625mA
T _s - Solder Point Temp *	68°C / 154°F
L70 Rating @ T _a 25°C	>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

Light Distribution Curve



C0/C180 —
 C90/C270 —

Zonal Lumen Summary

Zone (°)	Lumens	% Fixture
0-30	18,307	60.3%
0-40	26,140	86.1%
0-60	30,299	99.8%
0-90	30,330	99.9%
0-180	30,360	100.0%

IL450 Series

LED High Mast Lighting - 220Watt

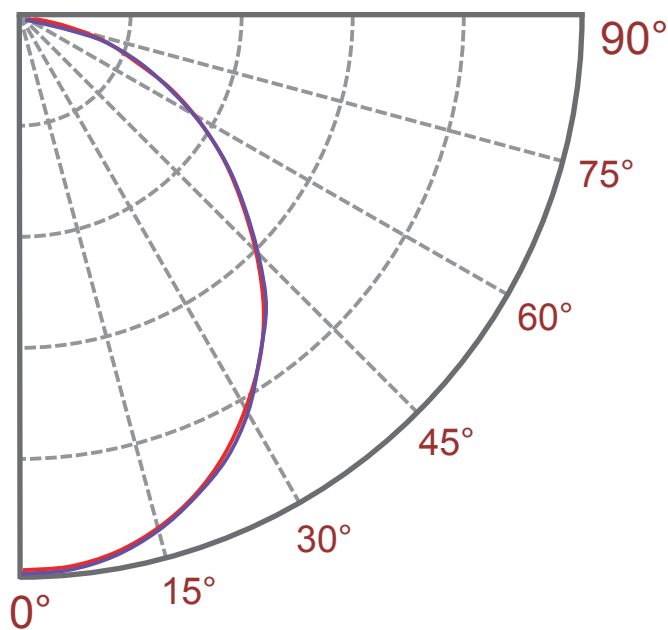
Specification - Type V Frosted Long

Fixture Watts	220 W
Lumens (Total)*	27,500 lm
Efficacy *	125 lm / W
Number of LEDs & Driving Current	112@625mA
T _s - Solder Point Temp *	67°C / 153°F
L70 Rating @ T _a 25°C	>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

Light Distribution Curve



C0/C180 —
 C90/C270 —

Zonal Lumen Summary

Zone (°)	Lumens	% Fixture
0-30	8,058	29.3%
0-40	13,008	47.3%
0-60	22,138	80.5%
0-90	27,445	99.8%
0-180	27,500	100.0%