

# IL450 Series

INDUSTRIAL GRADE LED LUMINARE



# IL450 Series

## LED Industrial High Bay Lighting



### Product Information

The IL450 Series is a technologically advanced LED industrial luminaire available in numerous choices of optics and versatile mounting systems for a variety of mid-high bay industrial applications. Its robust die-cast aluminium housing incorporates a patented air bi-pass convection system ensuring long LED life with extended lumen maintenance and virtually zero fixture maintenance.

The proprietary reflector controlled optical system delivers high efficacy, glare-free uniform lighting for exceptional visibility in all production processes. The IL450 is an IP68 rated robust industrial fixture available with optional wireless smart control.

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
- Warehouses
- Cold Storage
- Telecom Centers
- Supermarkets
- Airports
- Retail Stores

# IL450 Series

## LED Industrial High Bay Lighting



Years Warranty



Smart Control



Wet Location



Impact Resistance

### Advantages of IL450

- Technologically advanced LED industrial light
- Available in 100 ~ 220Watt configurations with various optics
- Ultra-bright industry leading high efficacy up to 170 lm / W
- Optional upward lighting module for retail applications to maximize space and comfort
- 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 motion & daylight sensor enabling greater savings and flexibility
- Available with versatile mounting options for various industrial 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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### Uplight Module Option

With innovation and flexibility in mind, Light Emitting Designs introduces the first true modularized, dual-sided, light-emitting highbay fixture. The uplight was designed and engineered specifically for applications requiring visual depth and ceiling height perception, such as big-box retail stores, supermarkets, airports, and upscale venues.

The uplight module is designed with a dedicated heatsink and is IP68-rated (water, vapor and dust-proof), providing over 3,500 lumens of upward light. The module is designed to provide discreet upward lighting without diminishing the aesthetics of the IL450.

Uplighting is available in all color temperatures and can be used with PDS or CH4 mounting options only. See the ordering information section for more about uplighting.



# IL450 Series

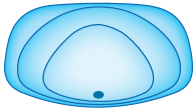
## LED Industrial High Bay Lighting

### Optic Options

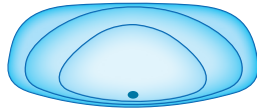
**02 - Type II** / wall mount & perimeter lighting applications

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**S - Short**



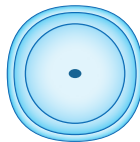
**M - Medium**



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

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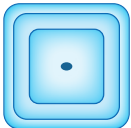
**M - Medium**



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

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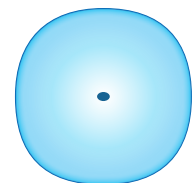
**S - Short**



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

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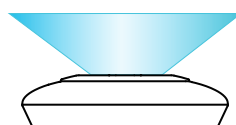
**L - Long**



**RU / SU / FU - Uplight** / upwards emitting light module for big-box retail stores, supermarkets, and airports\*

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**U - Uplight**



# IL450 Series

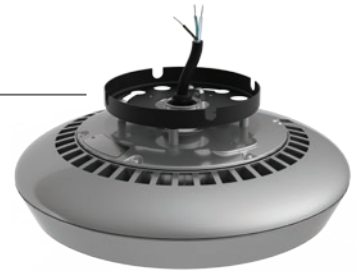
LED Industrial High Bay Lighting

## Mounting Options



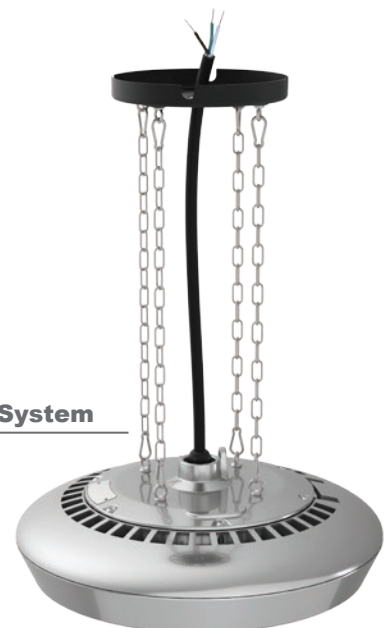
Swivel Mounting System - SWL

SST - Snap & Turn  
Surface Mounting System

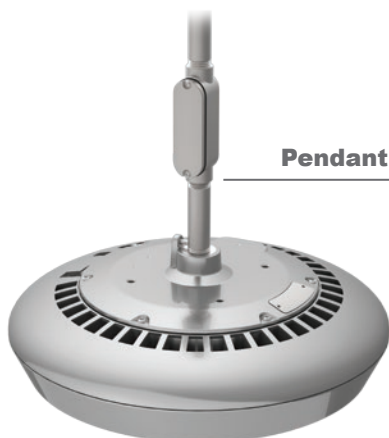


Wall Mounting System - W90

CH4 - Chain Mounting System



Pendant Mounting System - PDS



Tandem Mounting System - TMS



# IL450 Series

## LED Industrial High Bay Lighting

### 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 RU = R5 + Uplight SU = S5 + Uplight FU = F5 + Uplight	S = Short M = Medium L = Long	30 = 3000K 40 = 4000K 50 = 5000K	ND = Non-Dimmable DM = Dimmable DS = Daylight Sensor MS = Motion 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.

\* Uplight module is only available with CH4 & PDS mounting systems.

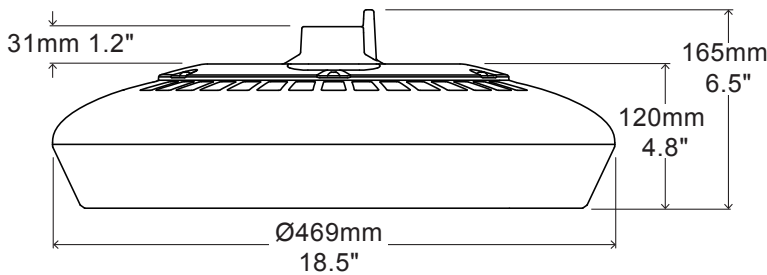
\*\* Smart control & daylight sensor available with ZHAGA standard receptacle module.

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

### Example

Part Number	Part Description
IL45150UV-R5M-50DM-PDS	LED Industrial Light / 150Watt / 100-277VAC / Type V Round / Medium Pitch / 5000K Cool White / Dimmable / Pendant 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 Industrial High Bay 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 <sub>s</sub> - 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 <sub>a</sub> 25°C	>185K hours	>180K hours	>175K hours	>160K hours	>150K 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 & Motion Sensor				
Warranty	10-Year Limited				
Storage Temp. / Humidity	-50° ~ 80°C / -58° ~ 176°F / IP68 Rated Fixture				
Transient Surge Protection	6kV / 3kA (L-L, L-G)				

\* Test data @ T<sub>a</sub>: 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 <sub>s</sub> - 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 <sub>a</sub> 25°C	>185K hours	>180K hours	>175K hours	>160K hours	>150K 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 & Motion Sensor				
Warranty	10-Year Limited				
Storage Temp. / Humidity	-50° ~ 80°C / -58° ~ 176°F / IP68 Rated Fixture				
Transient Surge Protection	6kV / 3kA (L-L, L-G)				

\* Test data @ T<sub>a</sub>: 25°C. All lumen values have ±7% tolerance



# IL450 Series

## LED Industrial High Bay 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 <sub>s</sub> - 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 <sub>a</sub> 25°C	>185K hours	>180K hours	>175K hours	>160K hours	>150K 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 & Motion Sensor				
Warranty	10-Year Limited				
Storage Temp. / Humidity	-50° ~ 80°C / -58° ~ 176°F / IP68 Rated Fixture				
Transient Surge Protection	6kV / 3kA (L-L, L-G)				

\* Test data @ T<sub>a</sub>: 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 <sub>s</sub> - 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 <sub>a</sub> 25°C	>185K hours	>180K hours	>175K hours	>160K hours	>150K 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 & Motion Sensor				
Warranty	10-Year Limited				
Storage Temp. / Humidity	-50° ~ 80°C / -58° ~ 176°F / IP68 Rated Fixture				
Transient Surge Protection	6kV / 3kA (L-L, L-G)				

\* Test data @ T<sub>a</sub>: 25°C. All lumen values have ±7% tolerance

# IL450 Series

## LED Industrial High Bay Lighting

### 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 <sub>s</sub> - 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 <sub>a</sub> 25°C	>185K hours	>180K hours	>175K hours	>160K hours	>150K 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 & Motion Sensor				
Warranty	10-Year Limited				
Storage Temp. / Humidity	-50° ~ 80°C / -58° ~ 176°F / IP68 Rated Fixture				
Transient Surge Protection	6kV / 3kA (L-L, L-G)				

\* Test data @ T<sub>a</sub>: 25°C. All lumen values have ±7% tolerance  
NOTE: Light intensities measured directly below fixture