IL450 Series

LED Industrial High Bay Lighting

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

Years Warranty

Smart Control

Wet Location

Impact Resistance

Applications

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

IL450 Series

LED Industrial High Bay Lighting

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.

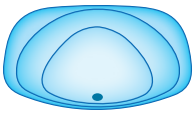
The uplight module is designed with a dedicated heatsink and is IP68-rated (water, vapor and dust-proof), providing over 3,500 lumens of upward light. The module is designed to provide discreet upward lighting without diminishing the aesthetics of the IL450.

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.

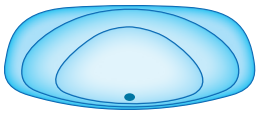
Optic Options

02 - Type II / wall mount & perimeter lighting applications

S - Short

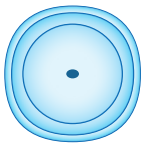


M - Medium



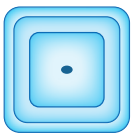
R5 - Type V Round / symmetric for low-mid-high bay, parking garages and flood applications

M - Medium



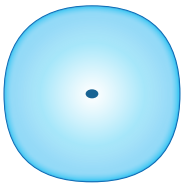
S5 - Type V Square / symmetric for high-bay, aisle, high-mast and flood applications

S - Short



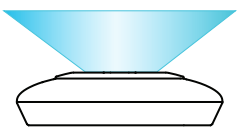
F5 - Type V Opaque - Frosted / symmetric for ultra uniform & low glare applications

L - Long



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

U - Uplight



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 Industrial High Bay Lighting - 100Watt

Ordering Information

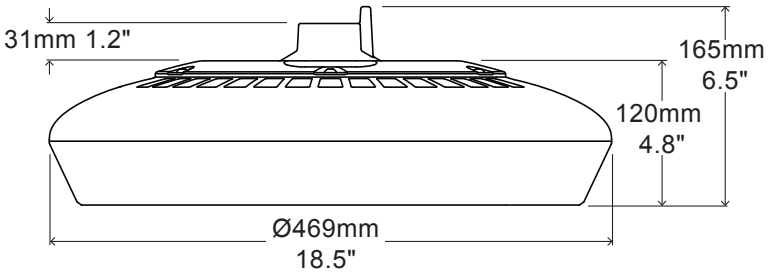
IL45	Wattage	Voltage	–	Optics *	Pitch	–	CCT	Driver & Control **	–	Mounting ***
	100 = 100W 125 = 125W 150 = 150W 185 = 185W 220 = 220W	UV = 100-277VAC HV = 200-480VAC DV = 127-390VDC		02 = Type II R5 = Type V Round S5 = Type V Square F5 = Type V Frosted RU = R5 + Uplight SU = S5 + Uplight FU = F5 + Uplight	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
IL45100UV-R5M-50DM-PDS	LED Industrial Light / 100Watt / 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

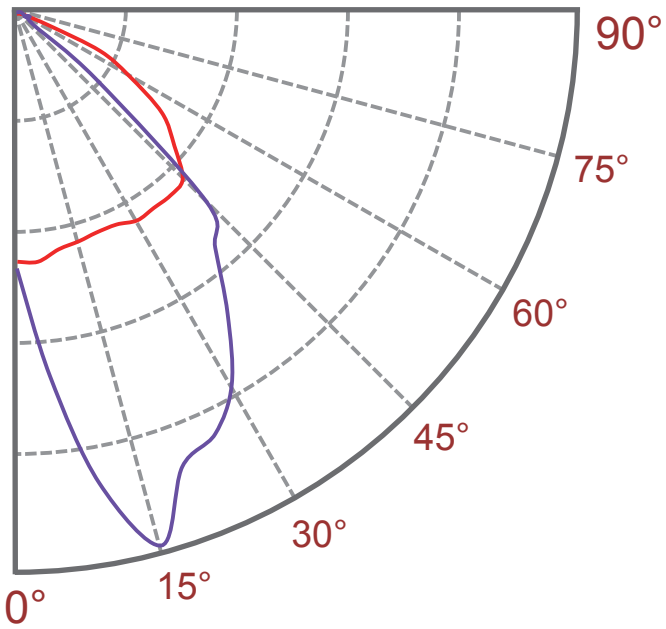
LED Industrial High Bay Lighting - 100Watt

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_S - Solder Point Temp *	52°C / 125°F
L70 Rating @ T_a 25°C	>185K 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 & 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 @ Ta: 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

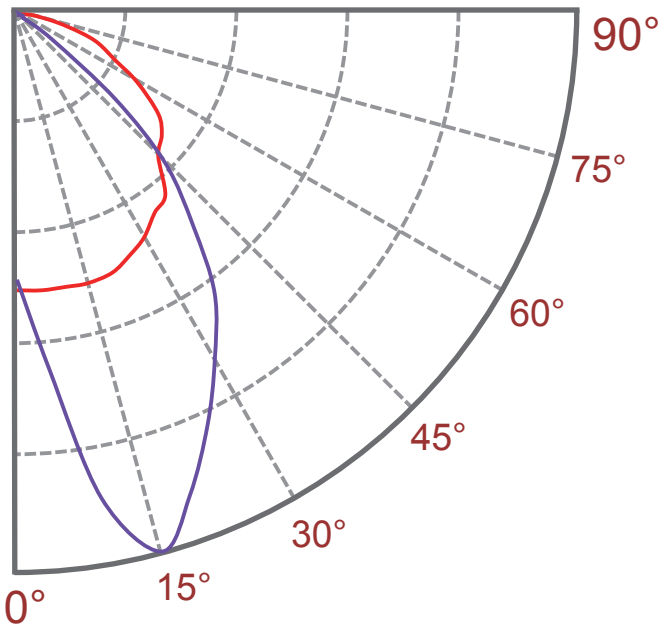
LED Industrial High Bay Lighting - 100Watt

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_S - Solder Point Temp *	52°C / 125°F
L70 Rating @ T_a 25°C	>185K 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 & 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 @ Ta: 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

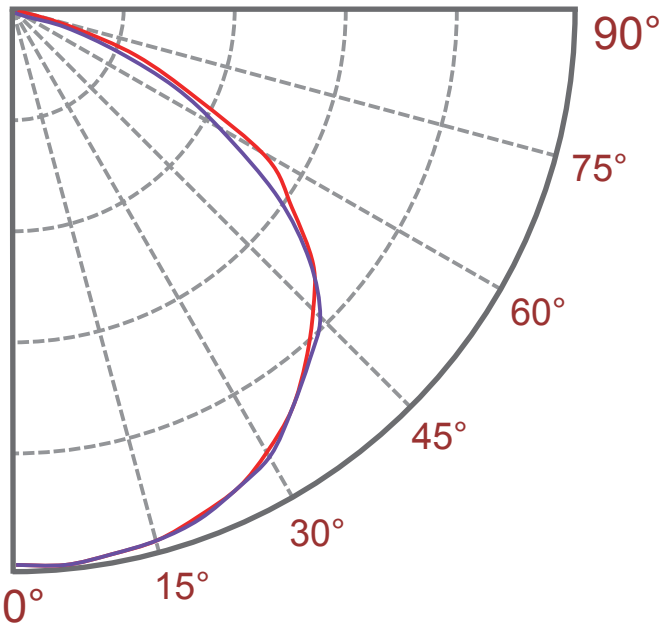
LED Industrial High Bay Lighting - 100Watt

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_S - Solder Point Temp *	50°C / 122°F
L70 Rating @ T_a 25°C	>185K 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 & 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 @ Ta: 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

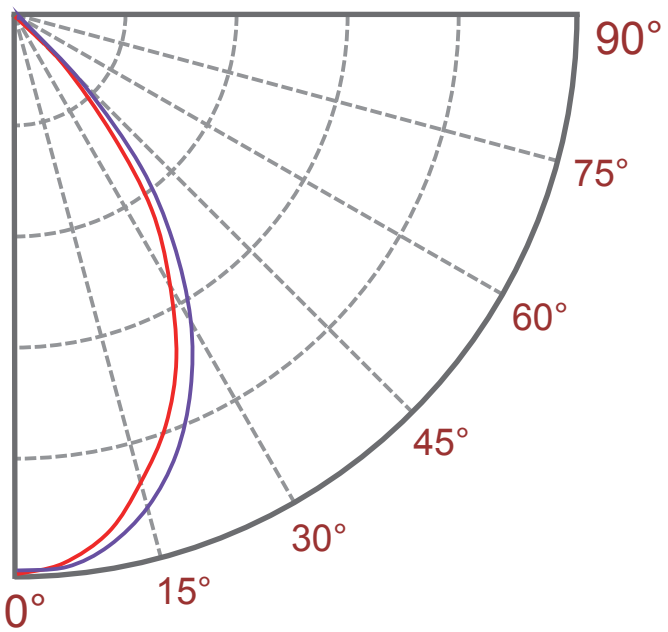
LED Industrial High Bay Lighting - 100Watt

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_S - Solder Point Temp *	51°C / 124°F
L70 Rating @ T_a 25°C	>185K 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 & 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 @ Ta: 25°C. All lumen values have ±7% tolerance
NOTE: Light intensities measured directly below fixture

Light Distribution Curve



Zonal Lumen Summary

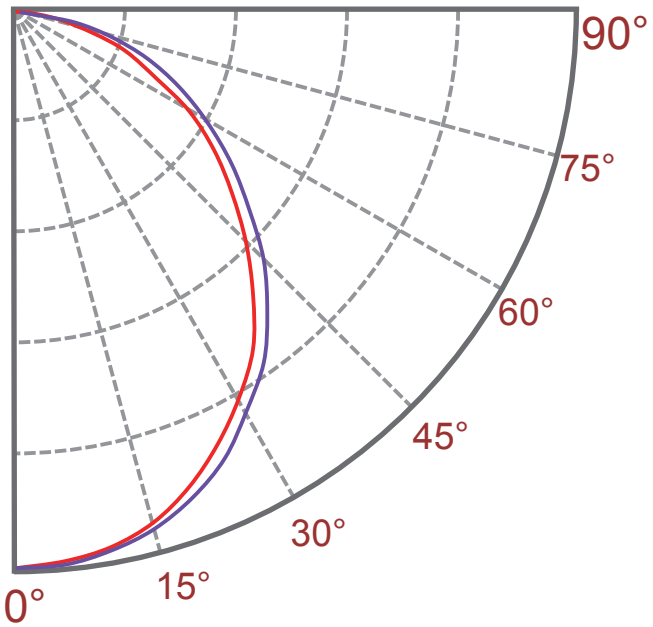
Zone (°)	Lumens	% Fixture
0-30	9,389	59.8%
0-40	13,424	85.5%
0-60	15,648	99.9%
0-90	15,700	100.0%
0-180	15,700	100.0%

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_S - Solder Point Temp *	51°C / 124°F
L70 Rating @ T_a 25°C	>185K 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 & 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 @ Ta: 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%