

Series Spec Sheet

HB28 SERIES

ECONOMICAL AND HIGH-PERFORMANCE LED ROUND HIGH BAY

CCT + WATTAGE SELECTABLE FEATURES

The HB28 Series LED High Bay is a high-efficiency industrial lighting solution engineered with a die-cast aluminum housing and premium Lumileds SMD2835 LEDs. Designed for warehouses, manufacturing facilities, workshops, gymnasiums, and high-ceiling commercial spaces, the HB28 series delivers uniform illumination with a 90° precision PC lens. With IP65 wet-location rating, 0-10V dimming, and multiple wattage and CCT configurations, the HB28 series offers excellent flexibility, durability, and long-term energy savings in demanding environments.

FEATURES AND SPECIFICATIONS

•Construction

Physical Characteristics

- Die-cast aluminum housing for superior thermal management
- High-efficiency Lumileds SMD2835 LED chips
- Clear polycarbonate (PC) lens with 90° beam angle
- Black, White, or Customized housing color options
- Integrated sensor receptacle for plug-and-play controls
- IP65 rated for wet and dusty locations

Mounting

- Pendant mounting (standard)
- Surface mounting supported
- Optional junction box available
- Compatible with accessories and sensor kits

•Performance data

- High lumen output:
 - 200W: up to 29,600 lm
 - 240W: up to 35,000 lm
 - 300W: up to 47,100 lm
- High efficacy: up to 157 lm/W
- 0-10V dimming standard (off at 0V)
- Color consistency: ≤6-7 SDCM (variant-dependent)
- CRI: >80
- UGR: <28
- Surge protection: 6kV (L-N / L-PE)

•Compliances

- UL / cUL listed (all models)
- DLC Premium (300W model only)
- IP65 wet-location rated
- RoHS compliant

OVERVIEW

MODEL	HB28-200	HB28-240	HB28-300
Light source	LED	LED	LED
Watts (W)	200W (120W / 150W / 200W selectable)	240W (150W / 200W / 240W selectable)	300W (50-100% adjustable)
Lumen output (lm)	28,800 - 29,600 lm	up to 35,000 lm	up to 47,100 lm
Efficacy (lm/W)	up to 148 lm/W	up to 154 lm/W	up to 157 lm/W
Color temperature (K)	5000K	4000K / 5000K	4000K / 5000K
CRI	>80	>80	>80
Weight (lbs)	5.29 lbs	5.51 lbs	7.21 lbs



HB28-200WS1BT2C1-abcdWSg



HB28-240WS1BT2C1-abcdWDg



HB28-300WS1BT2C1-abcdWD



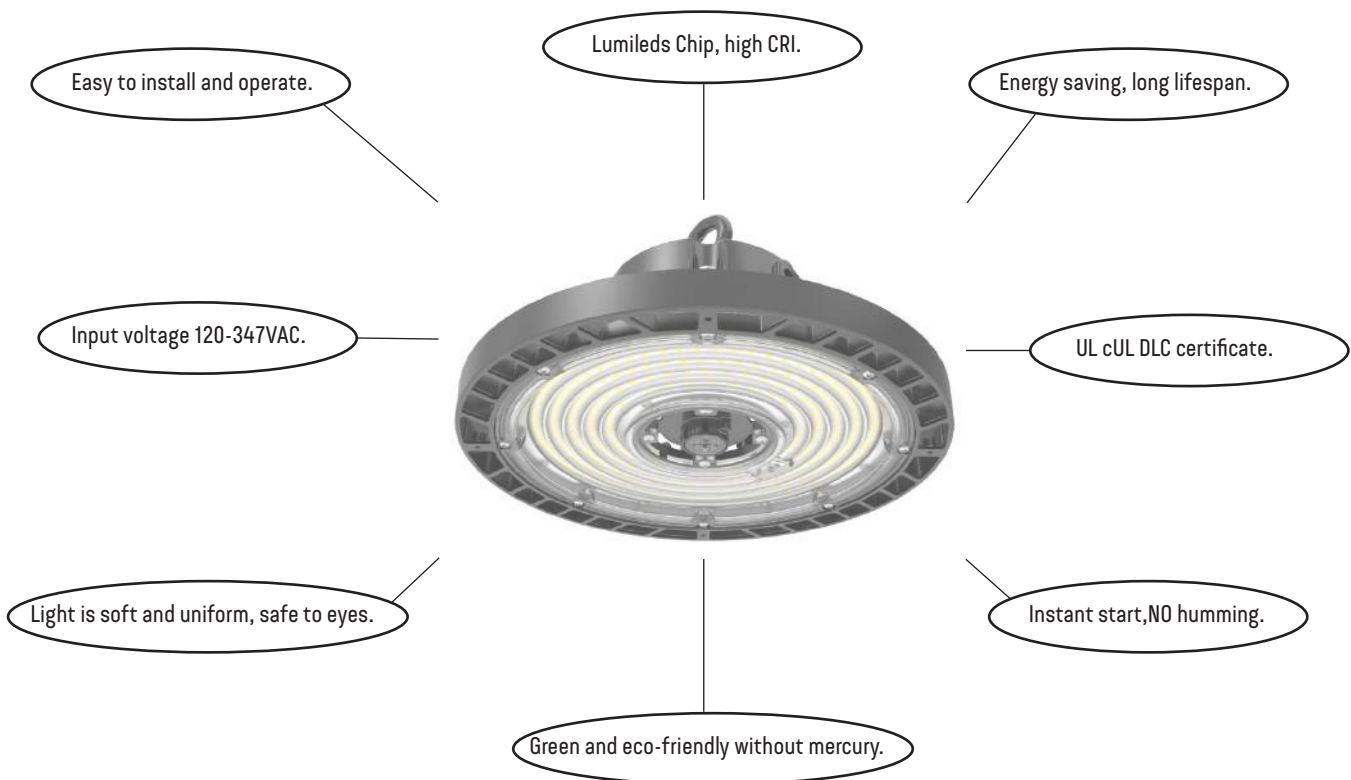
Not all products are qualified on the DLC QPL. To view our DLC qualified products, please consult the DLC Qualified Products List at www.designlights.org/search.

QUICK SHIP AND TECHNICAL SPECIFICATION TABLE

Model number	Watts (W)	Volts (VAC)	Color temp. (K) ¹	Lumen output (lm) ^{2,3}	Efficacy (lm/W)	CRI	Life L70 (hrs) ⁴	Tested hours LM-80 (hrs) ⁴	Calculated TM21 (hrs) ⁴	Beam angle (°) ⁵	Power factor	THD (%)
HB28-200WS1BT2C1	120W / 150W / 200W	120-347V	4000 / 4500 / 5000 / 5700	28,800 / 29,000 / 29,600 / 29,200	144 / 145 / 148 / 146	>80	50,000	9,000	54,000	90°	≥0.9	≤20%
HB28-240WS1BT2C1	150W / 200W / 240W	120-347V	4000 / 5000	35,000 / 34,200	154 / 146	>80	50,000	9,000	54,000	90°	≥0.9	≤20%
HB28-300WS1BT2C1	300W (50-100% adj.)	120-347V	4000 / 5000	47,100 / 45,600	157 / 152	>80	50,000	9,000	54,000	90°	≥0.9	≤20%

- Typical color temperature range: ±5%
- Lumen values are derived from photometric testing; initial lumen tolerance: ±10%
- Lumen values are based on 0-10V dimming at full output. Refer to the Technical Specification Table for detailed performance by wattage and CCT
- L70 life values are derived from LM-80 testing and projected per IES TM-21 methodology
- Specifications are subject to change without notice
- Primary Use Designation: High-bay luminaires for commercial and industrial applications

PRODUCT FEATURES



Specifications are based on laboratory testing under controlled conditions. Actual performance may vary depending on installation and operating environment. Product specifications are subject to change without notice. Please contact the manufacturer for current availability and details.

SPECIFICATIONS

	MODEL	HB28-200			HB28-240			HB28-300	
		Input Power (Tolerance: ±10%)	120W	150W	150W	150W	200W	240W	300W
OPTICAL	Color Temperature (Color Tunable)	4000K / 4500K / 5000K / 5700K			4000K / 5000K			4000K / 5000K	
	Lumen (Tolerance :±10%)	28,800 lm / 29,000 lm / 29,600 lm / 29,200 lm			35,000 lm / 34,200 lm			47,100 lm / 45,600 lm	
	Efficacy (Tolerance:±3%)	144 / 145 / 148 / 146 lm/W			154 / 146 lm/W			157 / 152 lm/W	
	CRI	>80			>80			>80	
	Color Consistency	≤6 SDCM			≤7 SDCM			≤7 SDCM	
	UGR	<28 (X=4H, Y=8H; S/H=1; Reflectances: 70% / 50% / 20%)							
	Diffuser Type	PC Lens							
	Beam Angle (50%) (Tolerance: ±10%)	90 Degree							
	ELECTICAL	Input Voltage and Frequency	120-347VAC, 50/60Hz						
		PF (Tolerance: -3%)	≥0.9						
THD (Tolerance: +5%)		≤20%							
Flicker Percent		<5%							
Dimming		0-10V dimming standard(off at 0V)							
Sensor Type		Daylight Sensor, Occupancy Sensor, Integral Sensor Receptacle							
Optional Accessory		Motion microwave Sensor, PIR motion sensor, Surge-protective Device							
MATERIALS	LED Brand	Lumileds							
	LED Type	SMD2835							
	LED QTY	HB28-200			HB28-240			HB28-300	
		320 pcs			576 pcs			768 pcs	
	Housing	Die-cast aluminum							
	Housing Color	Black, White, or Customized							
Waterproof Rating	WET (IP65)								
OTHERS	Operating Temperature	Without Motion Sensor: -40°C TO 50°C							
		With Motion Sensor: -30°C TO 50°C							
		With Emergency: 0°C TO 50°C							
	Storage Temperature	-40°C TO 80°C							
	Operating Humidity	20% - 90% RH							
	Storage Humidity	10% - 95% RH							
	Warranty	5 years							

ACCESSORIES (order separately)

Order code	Type	Compatible with
HB28-REF-AL	Aluminum Reflector	HB28-200 / HB28-240 / HB28-300
HB28-SC-SS	Stainless Steel Safety Cable	HB28-200 / HB28-240 / HB28-300
HB28-SEN-PIR	PIR Motion Sensor	HB28-200 / HB28-240 / HB28-300
HB28-SEN-HF	High-Frequency Microwave Sensor	HB28-200 / HB28-240 / HB28-300
HB28-SEN-BT	Bluetooth Mesh PIR Sensor	HB28-200 / HB28-240 / HB28-300
HB28-SPD-6K	6kV Surge-Protective Device	HB28-200 / HB28-240 / HB28-300



Aluminium reflector

ACCESSORY APPLICATION NOTES

- Aluminum reflectors improve glare control and optimize light distribution in high-bay applications
- Stainless steel safety cable is recommended for installations in public or high-traffic environments
- Motion and daylight sensors reduce energy consumption and extend fixture service life
- Sensors are plug-and-play and do not require additional wiring
- Surge-protective devices are recommended for areas with unstable or industrial power supply



1-pin plug & play sensors
(PIR, High Frequency & Bluetooth® Mesh PIR)

COMPATIBLE DIMMERS¹

Brand	Model
Lutron	DVTV-1
Lutron	NTFTV-1
Leviton	IP710-DL

¹This table shows dimmers that have been tested and have demonstrated proper operation under normal conditions. Each installation being unique, various factors such as load, common neutrals or other electrical products on the circuit can, in certain instances, cause variance in system performance. Read and comply to the dimmer installation instructions. Consult dimming system manufacturer for additional support in operation. Some dimmers may require more than one product for stable operation. Use dimmers designed to work with LED products. Older dimmers designed for incandescent products may cause erratic operation.

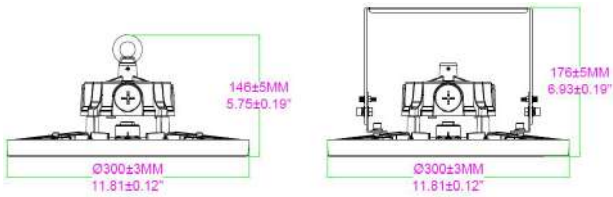


stainless steel safety cable

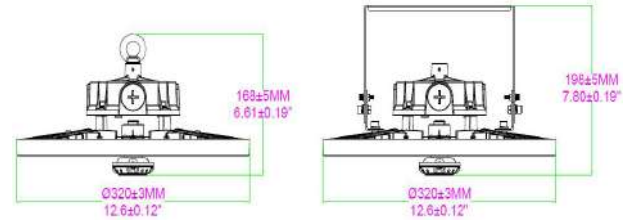
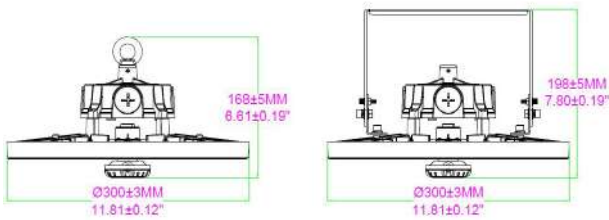
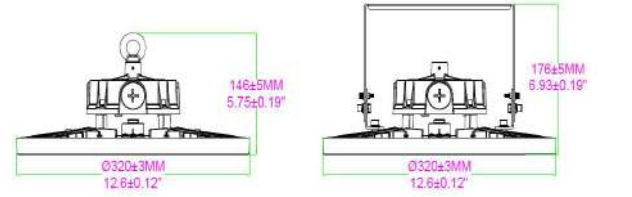
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DIMENSIONS AND WEIGHTS

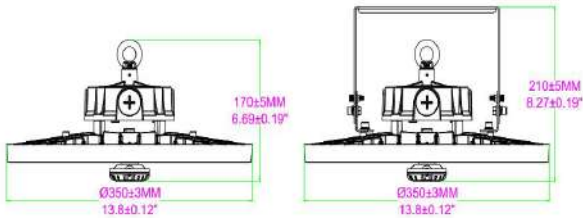
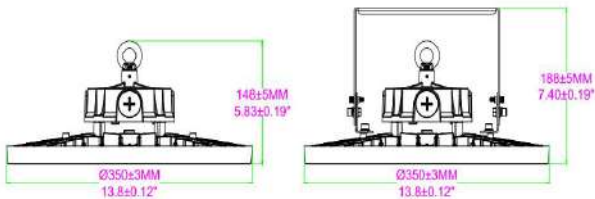
HB28-200WS1BT2C1-abcdWSg



HB28-240WS1BT2C1-abcdWDg



HB28-300WS1BT2C1-abcdWD



MEASUREMENTS			
MODEL	200W Model	240W Model	300W Model
Diameter in. (cm)	33.0 cm	38.0 cm	45.0 cm
Height in. (cm)	15.0 cm	16.0 cm	17.5 cm
Net weight (lbs)	4.93 lbs	6.63 lbs	8.73 lbs

ADVANTAGES

UL cUL DLC certificate.
Lumileds Chip, high CRI
Input voltage 120-347VAC.
Output constant current lever can be adjusted through output cable with 0-10V.
No UV or IR in the beam.
Easy to install and operate.
Energy saving, long lifespan.
Light is soft and uniform, safe to eyes
Instant start, NO humming.
Green and eco-friendly without mercury.

APPLICATIONS

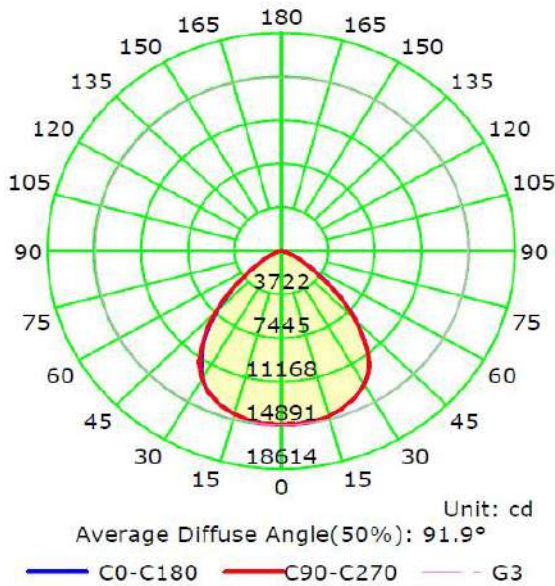
Warehouse, factory and workshops;
Highway toll station and gas station;
Exhibition hall;
Gymnasium and supermarkets, etc

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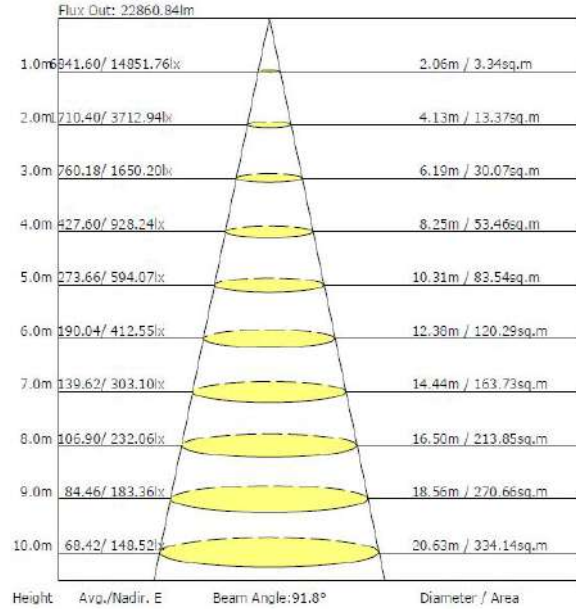
PHOTOMETRIC DATA¹

200 • HB28-200WS1BT2C1 • 200 W • 4 000 K • 29 000 lm

Luminous Intensity Distribution Curve



The Average Illuminance Effective Figure



LUMINAIRE PROPERTY

Luminaire Manufacturer:

Voltage: 120.7 V
Power: 201.19 W

Current: 1.670 A
Power Factor: 0.998

PHOTOMETRIC RESULTS

IES Classification: Direct
Total Rated Lamp Lumens: 30,224.2 lm
Efficiency: 100%
Upward Ratio: 0%
Central Intensity: 14,851.76 cd
Max. Intensity: 14,892 cd
Pos. of Max. Intensity: H67.5 V3

Luminaire Efficacy Rating (LER): 150.28 lm/W
Measurement Flux: 30,224.2 lm
Downward Ratio: 100%
Longitudinal Classification: Very Short

NOTICE

Please turn off power before installing or replacing any assembly parts.

The input voltage and lamp rating must match. After connecting the power line, ensure that all wiring points are insulated.

Non-professionals should not install or disassemble the luminaire.

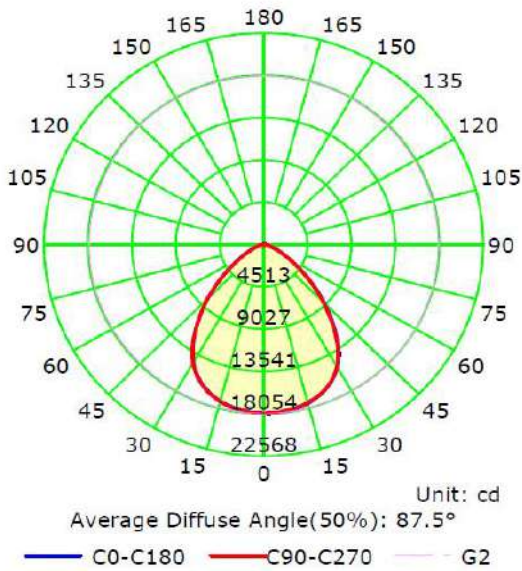
TROUBLE SHOOTINGS

Troubles	Check Points
Flickering of the light	Turn off the power and turn on again in 3 minutes. If the same issue occurs, please contact service agencies.
Out of working	Please check the connection.

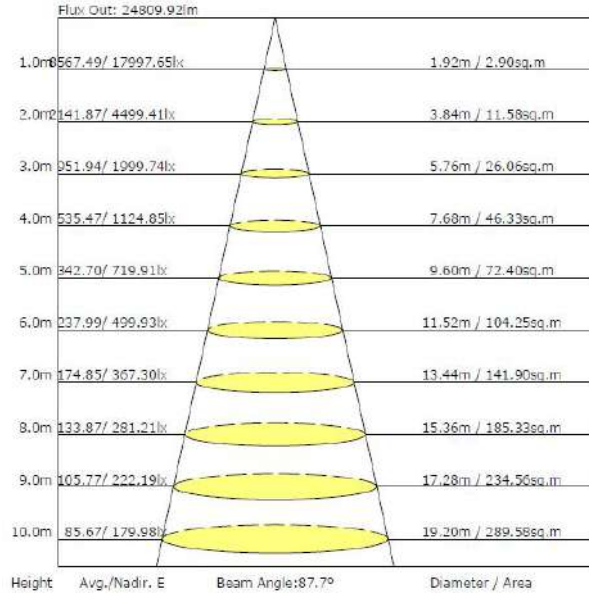
PHOTOMETRIC DATA¹

240 • HB28-240WS1BT2C1 • 240 W • 4 000 K • 35 000 lm

Luminous Intensity Distribution Curve



The Average Illuminance Effective Figure



LUMINAIRE PROPERTY

Luminaire Manufacturer:

Voltage: 120.6 V Current: 1.983 A
Power: 238.69 W Power Factor: 0.997

PHOTOMETRIC RESULTS

IES Classification: Type I
Total Rated Lamp Lumens: 35,263.1 lm
Efficiency: 100%
Upward Ratio: 0%
Central Intensity: 17,997.65 cd
Max. Intensity: 18,054.98 cd
Pos. of Max. Intensity: H22.5 V2

Luminaire Efficacy Rating (LER): 147.79 lm/W
Measurement Flux: 35,263.1 lm
Downward Ratio: 100%
Longitudinal Classification: Very Short

NOTICE

Please turn off power before installing or replacing any assembly parts.

The input voltage and lamp rating must match. After connecting the power line, ensure that all wiring points are insulated.

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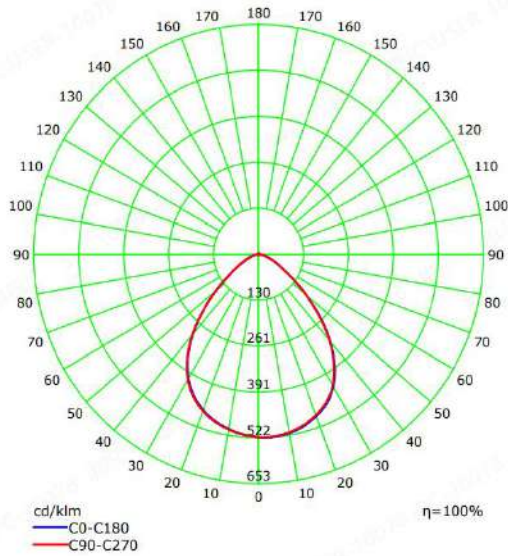
TROUBLE SHOOTINGS

Troubles	Check Points
Flickering of the light	Turn off the power and turn on again in 3 minutes. If the same issue occurs, please contact service agencies.
Out of working	Please check the connection.

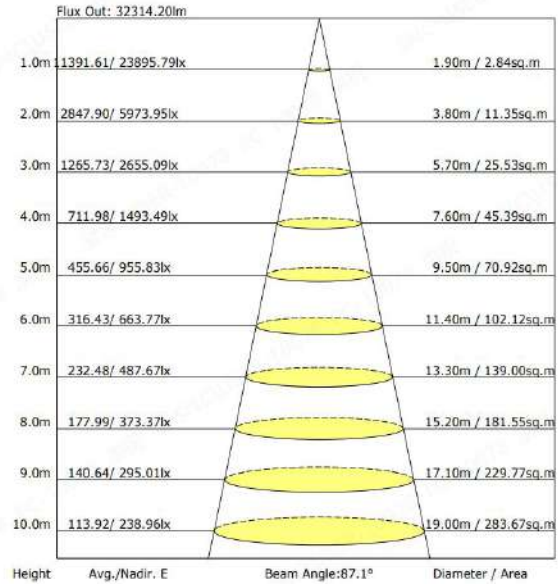
PHOTOMETRIC DATA¹

300 • HB28-300WS1BT2C1 • 300 W • 4 000 K • 47 100 lm

Luminous Intensity Distribution Curve(cd/klm)



The Average Illuminance Effective Figure



LUMINAIRE PROPERTY

Luminaire Manufacturer:

Voltage: 120.0 V
Power: 290.96 W

Current: 2.430 A
Power Factor: 0.998

PHOTOMETRIC RESULTS

IES Classification: Type I
Total Rated Lamp Lumens: 45,922.7 lm
Efficiency: 100%
Upward Ratio: 0%
Central Intensity: 23,895.79 cd
Max. Intensity: 23,992.42 cd
Pos. of Max. Intensity: H67.5 V4

Luminaire Efficacy Rating (LER): 157.88 lm/W
Measurement Flux: 45,922.7 lm
Downward Ratio: 100%
Longitudinal Classification: Very Short

NOTICE

Please turn off power before installing or replacing any assembly parts.

The input voltage and lamp rating must match. After connecting the power line, ensure that all wiring points are insulated.

Non-professionals should not install or disassemble the luminaire.

TROUBLE SHOOTINGS

Troubles	Check Points
Flickering of the light	Turn off the power and turn on again in 3 minutes. If the same issue occurs, please contact service agencies.
Out of working	Please check the connection.