

LED HIGH-BAY LUMINAIRE



Replacement of 1000W Metal Halide Lamps



Replacement of 700W Mercury Lamps



Replacement of 400W Metal Halide Lamps



Replacement of 400W Mercury Lamps



Replacement of 250W Mercury Lamps

1. Achieves similar brightness performance to Metal Halide Lamps and Mercury Lamps, at a fraction of those lamps types running costs.

Available in a wide variety of power classes, up to 1000W Metal Halide or as low as 250W Mercury Lamp equivalents.

2. LED lighting source life 60,000 hours

3. Lights up instantly

No warm-up time means even more energy savings can be achieved by simply switching off when not in use.

Replacement of the Metal Halide Lamps

Available 1000W class 400W class

Replacement of the Mercury Lamps

Available

700W class 400W class 250W class

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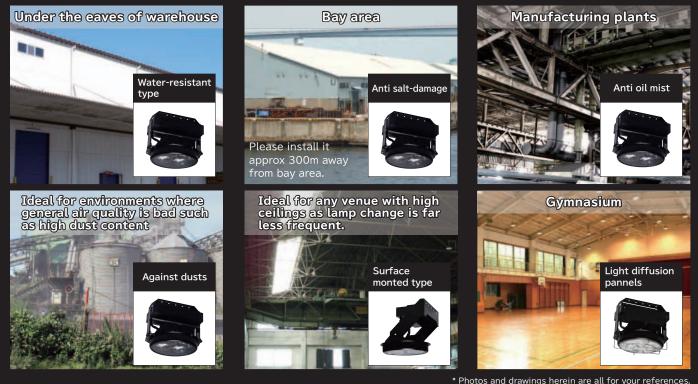
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No warm-up time means more energy savings simply by turning lights off when not in use.



Applied to special industrial environments and occations such as;



* The life of LED lighting source herein is figured out under specific temp design required for LED itself. Performance may not be same under different specifications and environments. And also, this is life time as a LED module itself, the life time of lighting fixture will be 8 to 10 years as same as when another lighting source used together.

Segments	Occasions	Brightness	Beam Angles	Lighting System	
General Type	Ordinary Occasions	43,800 lm Type (Eq. Metal Halide 1000W) 28,000 lm Type (Eq. Mercury 700W) 21,900 lm Type (Eq. Metal Halide 400W) 14,000 lm Type (Eq. Mercury 400W) 9,300 lm Type (Eq. Mercury 250W)	Middle Angle Wide Angle	Initial Illumination Correction Type Continual Dimming Type	
Special Industrial Environments (Options)	Water-resistant type Anti Oil Mist Type (Applied anti salt-damage, oil mist, and dusty air)	28,000 lm Type (Eq. Mercury 700W) 21,900 lm Type (Eq. Metal Halide 400W) 14,000 lm Type (Eq. Mercury 400W) 9,300 lm Type (Eq. Mercury 250W)	Middle Angle Wide Angle	Initial Illumination Correction Type	
	Wall Mounted Type	14,000 lm Type (Eq. Mercury 400W) 9,300 lm Type (Eq. Mercury 250W)	Middle Angle	Initial Illumination Correction Type Continual Dimming Type	

* Beam angles are measured and followed to the Hitachi original standards.

* This is the average figures in electric fluctuation by initial illumination correction.

Replacement of 1000W Class Metal Halide * Efficiency of energy saving may be different under different specific environments.	Brightness 103% approx	Energy Saving 69% approx	
Metal Halide Lamp Fixture 43,800 lm Type 1000W Type Middle Angle		Metal Halide Lamp Fixture	43,800 lm Type
Lamp: MF1000 · L-C/BU Initial Illumination Correction Type Reflector: MK10011 MTE441NN-J24		1000W Type Lamp: MF1000 · L-C/BU Reflector: MK10011	Middle Angle Initial Illumination Correction Type MTE441NN-J24
A Deduced	Quantity (Sets)	15	15 Same with Metal Halide Lamps
Reduced 69%	Input Power (W/Set)	1,050.0	324* Save 69% energy consumption
	Average luminous flux(lx)	608	627 Brightness 103% approx
Rated wattage 1,050.0W/Set Average watt 324.0W/Set (15 Sets) (15 Sets)	Life of lighting source(h)	12,000	60,000 5 times longer use
	* This is the	average figures in electric fluctuat	tion by initial illumination correction.

Conditions of Estimated Calculation

This is comparison of Fixture used: 1000W class of Metal halide lamps fixture (Lamp: MF1000 · L-C/BU Reflector: MK10011) (Energy consumption 1,050.0W, Average luminous flux 608 lx, Maintenance factor rating 0.47) x 15 sets used and LED High-bay luminaire 43,800 lm type, Middle angle, Initial illumination correction type MTE441NN-J24 (Average energy consumption 324.0W, Average luminous flux 627 lx, Maintenance factor rating 0.75) x 15 sets.

Replacement of 700W Class Mercury Lam	Brightness	Energy Saving		
* Efficiency of energy saving may be different under different specific environments.	106% approx	72% approx		
Mercury Lamp Fixture 28,000 lm Type 700W Type Middle Angle		Mercury Lamp Fixture	28,000 lm Type	
Lamp: HF700X Initial Illumination Correction Type Reflector: MK10011 MTE283NN-J14		700W Type Lamp: HF700X Reflector: MK10011	Middle Angle Initial Illumination Correction Type MTE283NN-J14	
Reduced	Quantity (Sets)	20	20 Same with Mercury Lamps	
72%	Input Power (W/Set)	745	208.0* Save 72% energy consumption	
	Average luminous flux(lx)	500	534 Brightness 106% approx	
Rated wattage 745.0W/Set Average watt 208.0W/Set (20 Sets) (20 Sets)	Life of lighting source(h)	12,000	60,000 5 times longer use	

Conditions of Estimated Calculation

This is comparison of Fixture used: 700W class of Mercury lamps fixture (Lamp: HF700X Reflector: MK10011) (Energy consumption 745.0W, Average luminous flux 500 lx, Maintenance factor rating 0.69) x 20 sets used and LED High-bay luminaire 28,000 lm type, Middle angle, Initial illumination correction type MTE283NN-J14 (Average energy consumption 208.0W, Average luminous flux 534 lx, Maintenance factor rating 0.75) x 20 sets.

General Estimated Calculation Conditions

- Size of building (Assumed): 32.0m x 20.0m (640.0m) Height 12.0m Reflecting rate: Ceiling 30%, Wall 30%, Floor 10% Tested hours: 3,000 h/year
- (Based on technical materials 114-1996 by the Japan Lighting Manufacturers Association.)
 * Efficiency of energy saving may be different under different specifications and environments.

Specification

Replacement of 1000W Metal Halide Lamps

	Model	Beam Angles	Rated Luminous Flux (lm)	Input Power (W)	Rated Input Voltage (V)	Efficiency (lm/W)	Color Temperature	Weight (kg)	Dimming
Initial Illumination Correction Type	MTE441NN-J24	Middle angle (60)	43,800	366.0 (324.0)*1	200~242	119.7	Natural (5,000K)	8.9	Incompatible
Continual Dimming Type	MTE441NN-Z24	Middle angle (60)	43,800	366.0	200~242	119.7	Natural (5,000K)	8.9	100~5% approx
Initial Illumination Correction Type	MTE441MN-J24	Wide angle (90)	43,000	366.0 (324.0)*1	200~242	117.5	Natural (5,000K)	8.7	Incompatible
Continual Dimming Type	MTE441MN-Z24	Wide angle (90)	43,000	366.0	200~242	117.5	Natural (5,000K)	8.7	100~5% approx

Replacement of 700W Mercury Lamps

	Model	Beam Angles	Rated Luminous Flux (lm)	Input Power (W)	Rated Input Voltage (V)	Efficiency (lm/W)	Color Temperature	Weight (kg)	Dimming
Initial Illumination Correction Type	MTE283NN-J14	Middle angle (60)	28,000	235.0 (208.0)*1	100~242	119.1	Natural (5,000K)	8.9	Incompatible
Continual Dimming Type	MTE283NN-Z14	Middle angle (60)	28,000	235.0	100~242	119.1	Natural (5,000K)	8.9	100~5% approx
Initial Illumination Correction Type	MTE283MN-J14	Wide angle (90)	25,500	235.0 (208.0)*1	100~242	108.5	Natural (5,000K)	8.6	Incompatible
Continual Dimming Type	MTE283MN-Z14	Wide angle (90)	25,500	235.0	100~242	108.5	Natural (5,000K)	8.6	100~5% approx

Replacement of 400W Metal Halide Lamps

	Model	Beam Angles	Rated Luminous Flux (lm)	Input Power (W)	Rated Input Voltage (V)	Efficiency (lm/W)	Color Temperature	Weight (kg)	Dimming
Initial Illumination Correction Type	MTE223NN-J14	Middle angle (60)	21,900	183.0 (164.0)*1	100~242	119.7	Natural (5,000K)	6.7	Incompatible
Continual Dimming Type	MTE223NN-Z14	Middle angle (60)	21,900	183.0	100~242	119.7	Natural (5,000K)	6.7	100~5% approx
Initial Illumination Correction Type	MTE223MN-J14	Wide angle (90)	19,900	183.0 (164.0)* ¹	100~242	108.7	Natural (5,000K)	6.5	Incompatible
Continual Dimming Type	MTE223MN-Z14	Wide angle (90)	19,900	183.0	100~242	108.7	Natural (5,000K)	6.5	100~5% approx

Replacement of 400W Mercury Lamps

	Model	Beam Angles	Rated Luminous Flux (lm)	Input Power (W)	Rated Input Voltage (V)	Efficiency (lm/W)	Color Temperature	Weight (kg)	Dimming
Initial Illumination Correction Type	MTE143NN-J14	Middle angle (60)	14,000	117.0 (105.0)* ¹	100~242	119.7	Natural (5,000K)	5.7	Incompatible
Continual Dimming Type	MTE143NN-Z14	Middle angle (60)	14,000	117.0	100~242	119.7	Natural (5,000K)	5.7	100~5% approx
Initial Illumination Correction Type	MTE143MN-J14	Wide angle (90)	13,090	117.0 (105.0)*1	100~242	111.9	Natural (5,000K)	5.5	Incompatible
Continual Dimming Type	MTE143MN-Z14	Wide angle (90)	13,090	117.0	100~242	111.9	Natural (5,000K)	5.5	100~5% approx

Replacement of 250W Mercury Lamps

Guard with diffusing panel reference combinations

	Model	Beam Angles	Rated Luminous Flux (lm)	Input Power (W)	Rated Input Voltage (V)	Efficiency (lm/W)	Color Temperature	Weight (kg)	Dimming
Initial Illumination Correction Type	MTE093NN-J14	Middle angle (60)	9,300	78.0 (69.5)*1	100~242	119.2	Natural (5,000K)	5.7	Incompatible
Continual Dimming Type	MTE093NN-Z14	Middle angle (60)	9,300	78.0	100~242	119.2	Natural (5,000K)	5.7	100~5% approx
Initial Illumination Correction Type	MTE093MN-J14	Wide angle (90)	8,880	78.0 (69.5)*1	100~242	113.8	Natural (5,000K)	5.5	Incompatible
Continual Dimming Type	MTE093MN-Z14	Wide angle (90)	8,880	78.0	100~242	113.8	Natural (5,000K)	5.5	100~5% approx

General Specification

Color rendering index: Ra70 Life of LED lighting unit: 60,000 hours

Ambient temperature: Please keep 10 to 35 degrees. Can be used in the temperature up to 45 degree only 3 months a year.

Please keep 10 to 40 degrees for using the replacement of 1000W Metal halide lamps. Can be used in the temperature up to 50 degree only 3 months a year.

*1 The figures in parenthesis shows average wattage. The average energy consumption above is showing the average of changing electric power.

General energy consumption, average energy consumption, intrinsic energy consumption shown on the specification are the figures under the condition 220V. Colors and brightness may not be same in the same products because of LED elements.

Guard, Guard with Diffusing Panel (Options) Reference Combinations



The contents and specifications may be going to change without notice.



Guard reference combination

HIGHBAY-001-1