

LED Highbay

LED Highbay NH101-102

KANDOLite®



Features

- 105W / 150W LED Highbay - Hybrid Lamp
- 150W version is NOT recommended for enclosed reflector *
- Universal AC 90-305V, PF> 0.9, THD< 20%
- 6kV surge protection
- 50° cutoff eliminates glare
- Dual functions:
 - direct retrofit existing magnetic ballast without removing ignitor and capacitor
 - ballast bypass direct AC connection
- Save inventory and installation costs
- Smart electronics provide over temperature protection
- "Batwing" shape creates even light distribution with low glare
- External reflector not required
- Fan-less design eliminates the weakest link and no fan noise
- 0 -10V dimming only operating under direct AC line voltage
- Occupancy and daylight sensor options only operating under AC line voltage with IR remote control
- Optional upgrade to Bluetooth control (North America only)
- Replace 400W / 600W HID Lamps
- Color Rendering Index: ≥80

Materials / Finish

- Body : Anodized aluminium
- Optics : PC

Installation / Mounting

- EX39 base / Hook mount
- Integral gear unit allows quick and easy installation
- Vertical orientation only

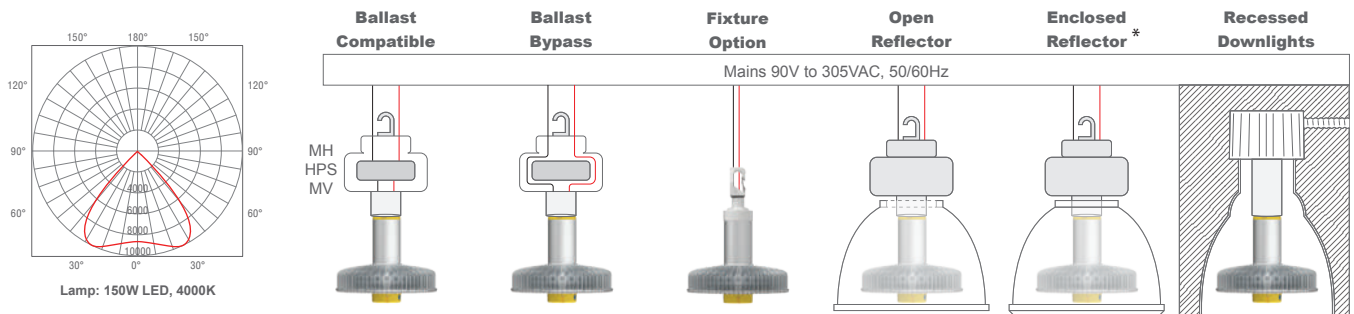
Standards

- IP20
- UL, FCC, DLC
- PSE
- Suitable for use in damp locations

Ballast Compatibility List

- Metal Halide : M58, M59, M128, M131, M132, M135, M136, M138, M153, M154, M155, M172
- High Pressure Sodium : S50, S51, S66, S107
- Mercury Vapor : H33, H37

Universal Applications



Model	Voltage	Wattage	Base	Color Temp	CRI (Ra)	Beam Angle	Lumen
NH101-105W/840	90 - 305V	105W	EX39 / Hook mount	4000K	≥80	90°	15000lm
NH101-105W/850	90 - 305V	105W	EX39 / Hook mount	5000K	≥80	90°	15000lm
NH102-150W/840*	90 - 305V	150W	EX39 / Hook mount	4000K	≥80	90°	20000lm
NH102-150W/850*	90 - 305V	150W	EV39 / Hook mount	5000K	≥80	90°	20000lm

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How LED Highbay direct retrofit HID Highbay

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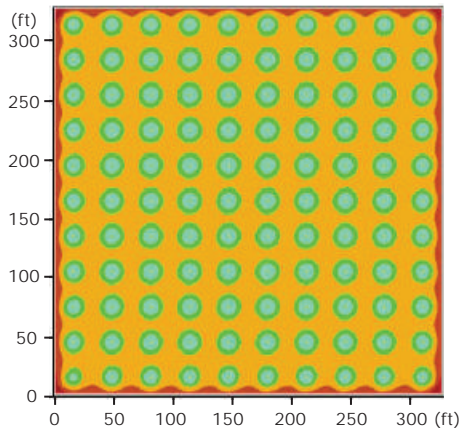
Room Parameters

Length: 328.1ft
Width: 328.1ft
Height: 27.9ft
Mounting height: 26.2ft
Maintenance factor: 0.8
Reflectance: 0.7 / 0.5 / 0.2

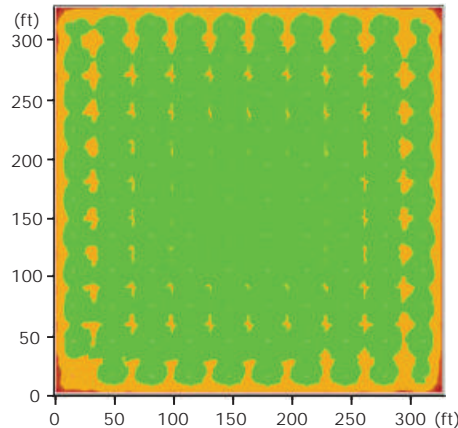
Optical Parameters

Light Loss Factor: HID = 56%, LED = 85%
Standard Service Illuminance: Average Illuminance (Eav)
≥150lx & Uniformity (Emin/Eav) >0.6

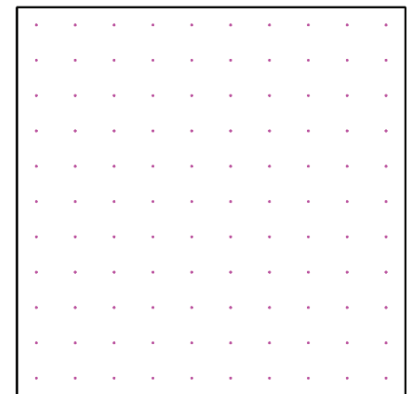
250W High Pressure Sodium Lamp



LED NH102-150W/840

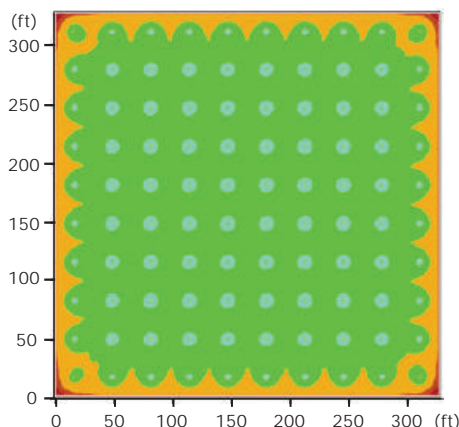


Layout: 110 pcs luminaire

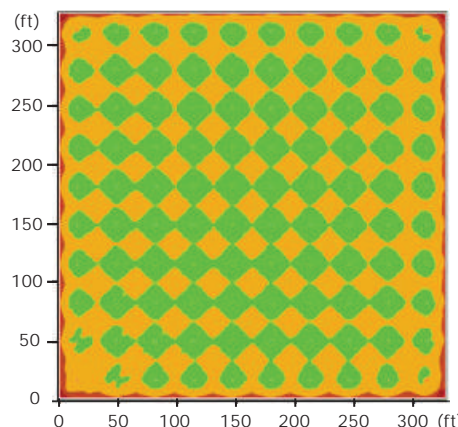


	250W HPS Lamp	NH102-150W/840	
Power	32,450W	16,500W	49% Energy Saving ✓
Average illuminance	150lx	163lx	Maintain standard service illuminance
Uniformity	0.75	0.82	Better Uniformity ✓
Life time	24,000 hrs	50,000 hrs	2.1x Longer ✓
Maintenance at 50,000hrs	2 times	1 time	50% Maintenance Cost Saving ✓

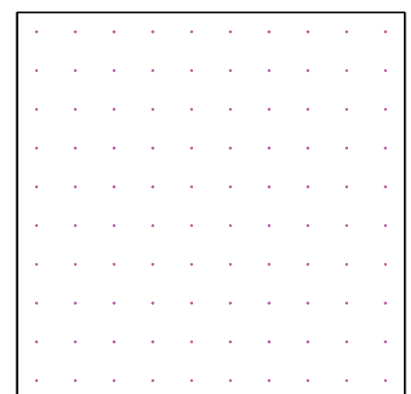
400W Metal Halide Lamp



LED NH102-150W/840



Layout: 100 pcs luminaire



	400W MH Lamp	NH102-150W/840	
Power	45,400W	15,000W	67% Energy Saving ✓
Average illuminance	165lx	150lx	Maintain standard service illuminance
Uniformity	0.71	0.82	Better Uniformity ✓
Life time	20,000 hrs	50,000 hrs	2.5x Longer ✓
Maintenance at 50,000hrs	2 times	1 time	50% Maintenance Cost Saving ✓

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Comparison of LED Highbay & HID Highbay

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Room Parameters

Length: 328.1ft
Width: 328.1ft
Height: 27.9ft
Mounting height: 26.2ft
Maintenance factor: 0.8
Reflectance: 0.7 / 0.5 / 0.2

Optical Parameters

Light Loss Factor: HID = 56%, LED = 85%
Standard Service Illuminance: Average Illuminance (Eav) $\geq 150\text{lx}$ & Uniformity (Emin/Eav) > 0.6

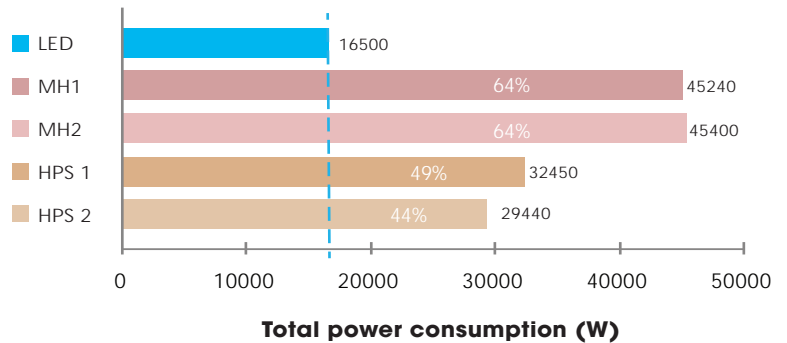
Brand	Lamp	Ballast	Symbol	CRI	CCT	Lamp Lumen	System Power	Minimum no. of lamps to provide standard service illuminance	Life Time (hours)
KANDOLite	NH102-150W/840	/	LED	80	4000K	19,500 lm	150W	110	50,000
Venture	MH 250W/U	Probe start	MH 1	70	4000K	21,000 lm	290W	156	10,000
Venture	MH 400W/U	Probe start	MH 2	70	4000K	34,000 lm	454W	100	20,000
Venture	LU250	HPS	HPS 1	20	2100K	28,000 lm	295W	110	24,000
Venture	LU400	HPS	HPS 2	20	2100K	51,000 lm	460W	64	24,000

LED saves over 40% energy than HID under the same illuminance level

LED saves 64% energy over MH lamp

LED consumes 44% energy less than 400W HPS lamp

Total power consumption of lamps for standard service illuminance



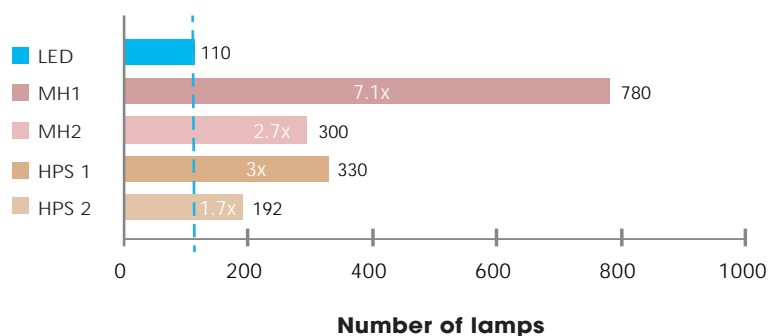
Operation number of lamps is the smallest by LED at 50,000 hours

Number of 250W and 400W MH lamps for operation is about 7 times and 3 times of LEDs respectively

Number of LED for operation is only one third of 250W HPS

82 lamps can be conserved when replacing 400W HPS lamp by LED

Number of lamps for standard service illuminance at 50000hrs



Lower maintenance cost

At 50,000 hours, LED requires its first maintenance while HPS lamp and MH lamp experienced two times and five (or two) times respectively

Changes of illuminance with time

