

RedBird LED

Cardinal® High Bay Fixtures



HB-88W-50K-WB, 2 Bar HighBay, 16,720 lumens



HB-264W-50K-WB, 6 Bar HighBay, 50,160 lumens

RedBird LED Cardinal® High Bay fixtures employ the same high efficacy LEDs and Drivers developed for our STRIPIT KIT® series of DLC listed products. **Custom Aluminum Extrusions** are used throughout the product forming an incredibly tough, yet lightweight chassis while also providing unmatched thermal management of the LEDs and Drivers, ensuring a 100,000 hour service life with virtually no lumen depreciation or chromatic shift.

Each 45" light bar is a complete Light Engine comprised of the extrusion with the LED PCB permanently embedded in it, a 44 watt Constant Current driver with 0-10V Dimming compatibility and custom MIRO-SILVER reflectors for the Narrow Beam models.

The RedBird High Bays are available in 4100K and 5000K CCTs. Standard models are offered as a 2-Bar, 3-Bar, 4- Bar and 6-Bar configurations. RedBird LED High Bays are offered in two basic Beam Distribution options:

Wide Beam Fixtures – provide a 120° x 160° Beam Angle, providing broad uniform coverage in open areas. An angular adjustment feature allows each light bar to be aimed prior to installation. As shown in photograph of the 3-Bar Wide Beam unit above, with the outer bars angled out at 45 degrees the beam pattern delivered is a 120° x 160° output as shown in the polar plot on the following page.

Focused / Narrow Beam Fixtures – provide a 120° x 45° Beam Angle. The beam forming is accomplished with computer designed linear reflectors built with Anolux-MIRO-SILVER providing 98% reflective properties across the entire visible spectrum to deliver the desired high efficiency beam forming with >99% preservation of the chromatic quality of the LEDs – a perfect solution for 30-40 foot high pallet racks with 12 foot aisles

At **190 lm/watt efficacy**, the RedBird LED High Bays can deliver more than 50,000 lumens, while consuming less than 264W. **Today's production units are delivering > 190 lms/watt. See attached LED Spec Sheet for Edison Opto new 2835 LEDs being installed. Operating at only 25% of rated forward current levels.**

Options for the Cardinal High Bay fixtures include occupancy and/or ambient light sensors. These interface to the standard 0-10V dimmable drivers enable complete control of the output levels and daylight harvesting capabilities.

The RedBird Drivers are Multi-volt (110-277 VAC and 347-480 VAC) compatible. The standard RedBird push for excellence is also embedded in the Driver design yielding PF=0.99, THD < 6% and a total conversion efficiency of 94%. The MTBF rating on the Drivers is > 140,000 hours. In case of a power loss, we also offer a Battery Backed Emergency Driver option.

The HB series **LEDs are under-driven by 50%** with drive levels of only 44 watts for each 45" light bar. These low drive levels combined with the highly efficient thermal management provided by the custom AL extrusions result in ISTMT test results where the steady state operating temperature is a mere 34.7°C, less than a 10°C rise above the ambient air temperature. As a result, RedBird High Bays are one of the very few LED high Bays that can be operated safely in ambient temperatures as high as 140°F without fear of premature failure, lumen degradation or color shift.

For a high bay product, which is by definition frequently mounted 30-40' high in a non-climate controlled warehouse where ambient temperatures can exceed 120°F, having this extra margin of temperature headroom is a major advantage of the RedBird LED High Bay solution.

Specifications and Features

		Dimensions		2-Bar	3-Bar	4-Bar	6-Bar
		L	H	W	W	W	W
Narrow Beam Fixtures:	46.625"	3.63"	5"	5"	6"	6"	
Wide Beam Fixtures:	46.625"	3"	5"	5"	5"	5"	
Available CCT	4100K, 5000K	Lumens		16,720	25,080	33,440	50,160
Efficacy	190 lumens per watt (nominal)						
Beam Patterns	120° x 160° Wide Beam / 120° x 45° Narrow Beam						
LED Drivers	CC type; 44 Watts per Light Bar, 0-10V Dimmable. Battery backup optional						
Power Connections	6 foot, 3 conductor sheathed power cord, 3-prong 120V plug standard						
PCB Construction	Aluminum core, molecularly bonded to High Bay extrusions						
LED Elements	288 SMD LEDs per 4' Light Bar						
Mounting Method	Cable Hung						
Sensors	Daylighting, Photocell and Occupancy Sensors available upon request						
CRI	>82						
R9	>5						
Duv	<0.0019						
Voltage	120-277VAC standard; 347/480VAC available						
Power Factor / THD	PF >0.99, THD < 6%						
Operating Temperature	-40°F to 135°F						
Certifications	UL, cUL, RU, 1993, 1598, 1598(B), 1598©, 8750, FCC, CE, RoHS						
DesignLights Consortium	Refer to DLC QPL for selected models						
Warranty	10 Year Full Replacement Warranty - no pro-rating.						
Rated Lifetime	> 100,000 Hrs						



Selected Models Listed on DesignLights Consortium Qualified Product list. Check <http://designlights.org/qpl> to confirm

Ordering Information

HB SERIES	TOTAL WATTAGE	CCT	BEAM PATTERN
HB -	88W 88w dimmable	50K 5000'K	WB wide beam
HB -	176W 176w dimmable	41K 4100'K	NB narrow beam

