Cree CXB Series

LED Low-Bay/High-Bay Luminaire

Product Description

The CXB Series LED Low-Bay/High-Bay luminaire delivers 18,000 median and 24,000 median lumens with illumination performance to allow one-for-one replacement of 250W and 400W HID luminaires and multi-lamp fluorescent low-bay and high-bay fixtures. With exceptional rated lifetimes, zero restrike time and a compact lightweight construction, the CXB Series is a direct replacement for incumbent HID and fluorescent light sources that provides additional benefits of energy savings and significantly reduced relamp maintenance costs. The CXB Series is offered with reflector choices of aluminum, clear and white acrylic with optional bottom lenses — making it ideal for a variety of applications. The CXB Series is available with 1-10V dimming option.
Applications: Grocery, sport (aluminum reflector), industrial, retail and warehouse spaces.

Performance Summary

Delivered Light Output: 18,000 or 24,000 median lumens

Input Power: 155 or 230 Watts

CRI: 80

CCT: 4000K (+/- 300K), 5000K (+/- 500K)

Input Voltage: 220-240 VAC

Limited Warranty†: 10 years on luminaire

Controls: ADIM (1-10V) Dimming to 5%

Mounting: J-Box, pendant, hook, eye bolt

Weight: Maximum 6.4kg

Accessories

Reflector	
Wire Guards WG-A - 406mm Wire Guard for Aluminum Reflector WG-AP - 406mm Wire Guard for Acrylic Reflector	**Lenses** DL16 - 406mm Acrylic Clear Prismatic Drop Lens for Acrylic Reflector CL16 - 406mm Acrylic Clear Conical Bottom Lens for Acrylic Reflector
Light Engine	
Galvanized Safety Cables SC-5 - 1.5m Cable	SC-10 - 3.0m Cable

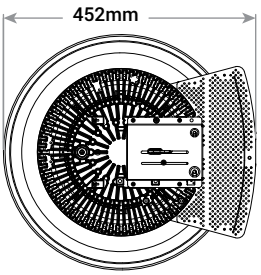
Ordering Information

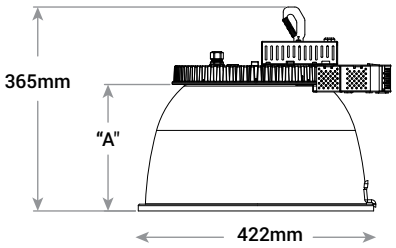
Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Reflector:** CXBA16N + **Light Engine:** CXB B JP M 40K 8 + UC ND

Reflector (Light Engine must be ordered separately)	
CXBA16N - 406mm Aluminum **CXBP16** - 406mm Clear Acrylic - Acrylic reflector is not impact resistant nor intended for use unprotected in a gymnasium	**CXBW16** - 406mm White Acrylic - Acrylic reflector is not impact resistant nor intended for use unprotected in a gymnasium

Aluminum Reflector

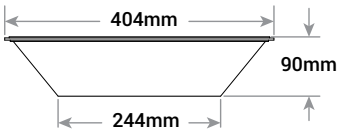




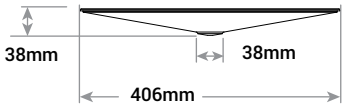


Reflector	"A" Height
CXBA16N (Aluminum)	229mm
CXBP16 (Clear Prismatic)	216mm
CXBW16 (White Acrylic)	216mm

Drop Lens



Clear Conical Lens



Light Engine (Reflector must be ordered separately)								
CXB	**B**	**JP**	**M**	**40K**	**8**	**+**	**UC**	**ND**
Product	**Version**	**Mounting**	**Lumen Output**	**Color Temp**	**CRI**	**+**	**Voltage**	**Controls**
CXB	**B**	**JP** J-Box or Pendant **EY** Eye bolt mount **HH** Hook mount	**M** 155W, 18,000 Median Lumens - 116 LPW **H** 230W, 24,000 Median Lumens - 104 LPW	**40K** 4000K **50K** 5000K	**8** 80 CRI	**+**	**UC** 220-240V	**ND** No dimming **ADIM** 1-10V Dimming to 5%

† See www.cree.com/lighting/products/warranty for warranty terms

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Product Specifications

CONSTRUCTION & MATERIALS

- Die cast aluminum heatsink
- Low-profile, lightweight design provides ease of installation
- Mounting choices of direct, pendant, hook or eye mount
- HH mount is provided with spring lock hook for mounting

OPTICAL SYSTEM

- 406mm Anodized matte aluminum reflector
- 406mm Clear acrylic reflector
- 406mm White acrylic reflector
- LED system delivers proper uniformity & spacing

ELECTRICAL SYSTEM

- Integral, high-efficiency driver and power supply
- **Input Voltage:** 220-240 VAC, 50/60Hz
- **Power Factor:** > 0.9
- **Dimming:** Dimmable to 5% with Analog 1-10V
- **Total Harmonic Distortion:** < 20%
- **Source Current:** 0.15mA
- **Operating Temperature Range:** 0°C / +50°C for 18,000 median lumen package; 0°C / +40°C for 24,000 median lumen package
  WARNING: Exceeding maximum operating temperature may result in thermal foldback

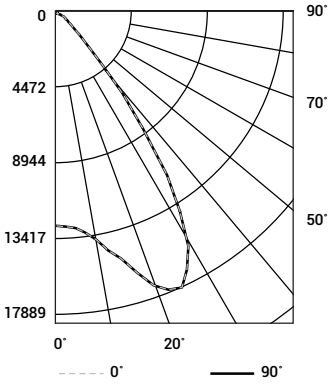
REGULATORY & VOLUNTARY QUALIFICATIONS

- CE listed

Photometry

CXBP16/CXBAH40K8 BASED ON CESTL REPORT TEST #: PL04029-001**

Luminaire photometry has been conducted in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



Coefficients Of Utilization - Zonal Cavity Method

RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	112	109	106	103
2	105	100	95	91
3	99	91	86	81
4	93	84	78	73
5	87	77	71	66
6	82	72	65	60
7	77	66	59	55
8	73	62	55	50
9	68	57	51	46
10	65	54	47	43

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m²)

Vertical Angle	Horizontal Angle 0°	45°	90°
45°	20,315	20,315	20,315
55°	6,999	6,999	6,999
65°	4,486	4,486	4,486
75°	2,346	2,346	2,346
85°	660	660	660

Zonal Lumen Summary

Zone	Lumens	% Lamp	Luminaire
0-30	13,590	N/A	54.7%
0-40	20,547	N/A	82.7%
0-60	23,667	N/A	95.3%
0-90	24,553	N/A	98.8%
0-180	24,842	N/A	100%

Reference www.cree.com/Lighting/Products/Indoor/High-Low-Bay/CXB-Series for detailed photometric data

Reflector Uplight Illumination Performance

Reflector	% of Uplight
CXBA16N (Aluminum)	0%
CXBP16 (Clear Acrylic)	1%
CXBP16 + CL16 (Clear Acrylic w/ Conical Bottom Lens)	5%
CXBP16 + DL16 (Clear Acrylic w/ Drop Bottom Lens)	6%
CXBW16 (White Acrylic)	16%
CXBW16 + CL16 (White Acrylic w/ Conical Bottom Lens)	20%
CXBW16 + DL16 (White Acrylic w/ Drop Bottom Lens)	19%

CXB Series Lumen Maintenance[1]

Ambient	Initial LMF	25K hr Projected[2] LMF	50K hr Projected[2] LMF	75K hr Calculated[3] LMF	100K hr Calculated[3] LMF
0°C (32°F)	1.05	0.98	0.93	0.88	0.83
5°C (41°F)	1.04	0.97	0.92	0.87	0.82
10°C (50°F)	1.03	0.96	0.91	0.86	0.81
15°C (59°F)	1.02	0.95	0.90	0.85	0.81
20°C (68°F)	1.01	0.95	0.89	0.84	0.80
25°C (77°F)	1.00	0.94	0.88	0.84	0.79
30°C (86°F)	0.99	0.93	0.88	0.83	0.78
35°C (95°F)	0.98	0.92	0.87	0.82	0.77
40°C (104°F)	0.97	0.91	0.86	0.81	0.77
45°C (113°F)	0.96	0.90	0.85	0.80	0.76
50°C (122°F)	0.95	0.89	0.84	0.79	0.75

[1] Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
[2] In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)
[3] In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

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