

Day-Brite CFI

by  Signify

Industrial

FBY LED high bay

12,000 to 30,000 lms



Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lumens: _____ Qty: _____
 Notes: _____

Day-Brite / CFI FBY LED high bay provides versatility in form and function. With a wide range of lumen packages and accessories available, this luminaire can be used in many different applications ranging from warehouses and manufacturing facilities to retail outlets and school gymnasiums.

Ordering guide

Example: **FBY24L840-UNV-LCA**

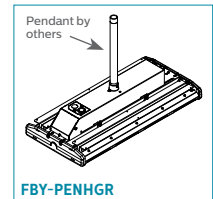
| Family | Lumens (nominal) ¹ | Color Temperature | Voltage | Options |
|------------|--|---|--|--|
| FBY | — | — | — | — |
| FBY | 12L 12,000 lumens 18L 18,000 lumens 24L 24,000 lumens 30L 30,000 lumens | 835 3500K (CRI 80) 840 4000K (CRI 80) 850 5000K (CRI 80) | UNV Universal voltage 120-277V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V | WP6² Wired 6' 16/3 cord & NEMA twist lock plug WC6 Wired 6' 16/3 cord WP6D² Wired 6' 16/3 cord & NEMA twist lock plug for line voltage and wired 6' 16/3 cord & plug for dimming control WC6/4³ Wired 6' 16/4 cord for line voltage plus unswitched hot for BSL10LST WC6/5³ Wired 6' 18/5 cord for line voltage plus 0-10V dimming WC6/6³ Wired 6' 18/6 cord for line voltage plus unswitched hot for BSL10LST plus 0-10V dimming BSL10LST³ Factory wired Philips Bodine integral emergency pack, nominal 1100 to 1400 lumens MD360 360° Motion detector (ON/OFF) MD360D 360° Motion detector (ON/DIM to 10%) LCA Clear acrylic lens LFA Frosted acrylic lens |

Footnotes

- Nominal delivered lumens at 25°C ambient
- Must specify line voltage
- Order proper cord option for dimming or emergency

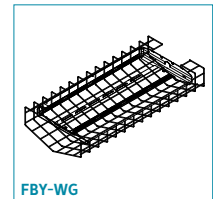
General Notes

- All options factory installed.
- All accessories are field installed.
- Many luminaire components, such as reflectors, refractors, lenses, sockets, lampholders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility



Accessories (order separately)

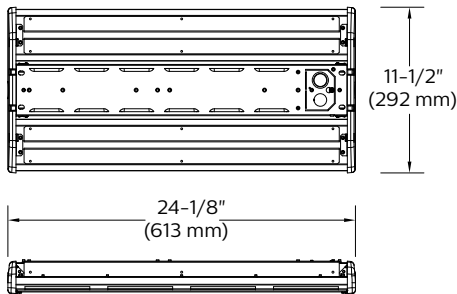
- HNH5-VHOOK** 54" chains & V hooks
- HCH5-VHOOK** 5' cables & V hooks
- HCH10-VHOOK** 10' cables & V hooks
- HCH15-VHOOK** 15' cables & V hooks
- HCH20-VHOOK** 20' cables & V hooks
- FBY-PENHGR** Pendant hanger (adds 3" to height)
- FBY-WG** Wire guard
- FBX-SLCA-2N** Clear acrylic snap lens
- FBX-SLFA-2N** Frosted acrylic snap lens



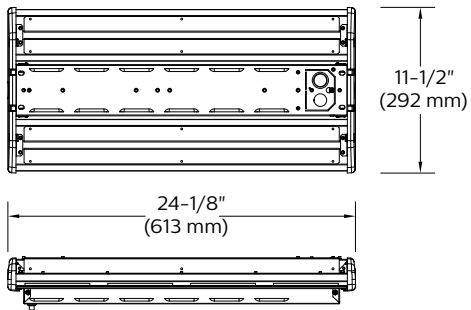
FBY LED high bay

12,000lm, 18,000lm, 24,000lm, & 30,000lm

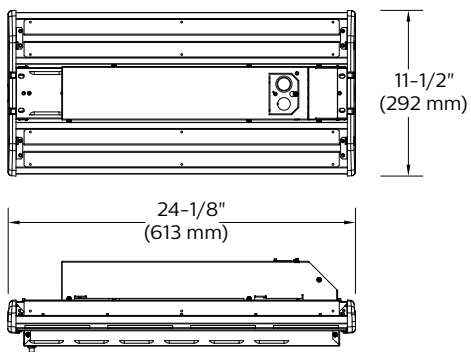
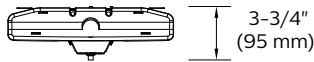
Dimensions



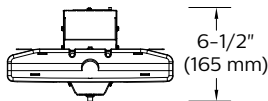
STANDARD FBY



FBY W/BSL10LST OPTION



FBY W/BSL10LST AND 347/480V OPTIONS



Application

- This luminaire can be used to illuminate retail, cold storage, manufacturing, warehousing and many other large indoor spaces with control and precision.

Construction/Finish

- Metal housing and reflectors provide excellent thermal transfer to extend component life.
- End holes to attach V hooks for chain or cable hanging.
- Cable/chain mounting capability is standard (ordered separately or furnished by others). Accessories are available for other mounting methods.
- 7/8" K.O. at each end of luminaire for wiring or motion detector.
- Polyester powder finish for excellent impact and corrosion resistance.
- LED light engines and drivers are field replaceable.
- 5 Year Limited Warranty.
- Components are RoHS compliant.
- cETLus listed to UL 1598 standards. Suitable for use in damp locations and -20° to 45°C ambient. (0° to 45°C for BSL10LST option)
- Dimming drivers are standard. Control is 0-10V DC.
- Optional motion detector.
- DLC Listed. Please check the DLC Qualified Products List to confirm (www.designlights.org/QPL).
- 6KV surge protection standard.

FBY LED high bay

12,000lm, 18,000lm, 24,000lm, & 30,000lm

Photometry

LED high bay FBY, general distribution, 24,000 nominal delivered lumens

| | |
|-------------|---------------|
| Catalog No. | FBY24L840-UNV |
| Test No. | 39981 |
| S/MH | 1.0 |
| Lamp Type | LED |
| Lumens/Lamp | 24748 |
| Input Watts | 177 |
| Efficacy | 140 |

Comparative yearly lighting energy cost per 1000 lumens – **\$1.70** based on 3000 hrs. and 5.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

Candela distribution

| Vertical Angle | Horizontal Angle | | | |
|----------------|------------------|------|------|------|
| | 0° | 45° | 90° | -45° |
| 0 | 9264 | 9264 | 9264 | 9264 |
| 5 | 9226 | 9324 | 9359 | 9324 |
| 15 | 8987 | 9023 | 9017 | 9023 |
| 25 | 8467 | 8303 | 6893 | 8303 |
| 35 | 7724 | 6077 | 7031 | 6077 |
| 45 | 6672 | 6137 | 6177 | 6137 |
| 55 | 5033 | 4238 | 3189 | 4238 |
| 65 | 3512 | 2574 | 2290 | 2574 |
| 75 | 1839 | 856 | 953 | 856 |
| 85 | 353 | 246 | 247 | 246 |
| 95 | 99 | 94 | 73 | 94 |
| 105 | 124 | 107 | 85 | 107 |
| 115 | 154 | 137 | 113 | 137 |
| 125 | 175 | 155 | 146 | 155 |
| 135 | 188 | 169 | 154 | 169 |
| 145 | 183 | 176 | 162 | 176 |
| 155 | 166 | 162 | 160 | 162 |
| 165 | 146 | 152 | 140 | 152 |
| 175 | 127 | 128 | 120 | 128 |

Light Distribution

| Degrees | Lumens | % Luminaire |
|---------|--------|-------------|
| 0-30 | 7094 | 28.7 |
| 0-40 | 11466 | 46.3 |
| 0-60 | 19649 | 79.4 |
| 0-90 | 23883 | 96.5 |
| 90-180 | 865 | 3.5 |
| 0-180 | 24748 | 100.0 |

Average Luminance

| Angle | End | 45° | Cross |
|-------|-------|-------|-------|
| 45 | 61608 | 56669 | 57032 |
| 55 | 57290 | 48239 | 36303 |
| 65 | 54261 | 39759 | 35384 |
| 75 | 46401 | 21588 | 24030 |
| 85 | 26466 | 18436 | 18481 |

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

| Ceiling (pcc) | 80% | | | 70% | | | 50% | | |
|-------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|
| | 70 | 50 | 30 | 70 | 50 | 30 | 50 | 30 | |
| Wall (pw) | | | | | | | | | |
| RCR | Zonal cavity method - Effective floor reflectance = 20% | | | | | | | | |
| Room Cavity Ratio | 0 | 118 | 118 | 118 | 115 | 115 | 115 | 109 | 109 |
| | 1 | 109 | 104 | 100 | 106 | 102 | 98 | 97 | 94 |
| | 2 | 99 | 91 | 85 | 96 | 89 | 83 | 85 | 80 |
| | 3 | 91 | 81 | 73 | 88 | 79 | 72 | 75 | 69 |
| | 4 | 83 | 72 | 63 | 81 | 70 | 62 | 67 | 60 |
| | 5 | 77 | 64 | 56 | 74 | 63 | 55 | 60 | 53 |
| | 6 | 71 | 58 | 49 | 69 | 57 | 49 | 55 | 47 |
| | 7 | 66 | 53 | 44 | 64 | 52 | 44 | 50 | 43 |
| | 8 | 61 | 48 | 40 | 60 | 47 | 39 | 46 | 39 |
| | 9 | 57 | 44 | 36 | 56 | 43 | 36 | 42 | 35 |
| | 10 | 54 | 41 | 33 | 52 | 40 | 33 | 39 | 32 |

LED high bay FBY, general distribution, 24,000 nominal delivered lumens, clear acrylic lens

| | |
|-------------|-------------------|
| Catalog No. | FBY24L840-UNV-LCA |
| Test No. | 39993 |
| S/MH | 1.1 |
| Lamp Type | LED |
| Lumens/Lamp | 23532 |
| Input Watts | 176 |
| Efficacy | 133 |

Comparative yearly lighting energy cost per 1000 lumens – **\$1.79** based on 3000 hrs. and 5.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

Candela distribution

| Vertical Angle | Horizontal Angle | | | |
|----------------|------------------|------|------|------|
| | 0° | 45° | 90° | -45° |
| 0 | 9110 | 9110 | 9110 | 9110 |
| 5 | 9028 | 9092 | 9182 | 9092 |
| 15 | 8784 | 8837 | 8875 | 8837 |
| 25 | 8252 | 8197 | 7032 | 8197 |
| 35 | 7487 | 6221 | 6508 | 6221 |
| 45 | 6409 | 5446 | 5875 | 5446 |
| 55 | 4687 | 4136 | 3055 | 4136 |
| 65 | 3071 | 2125 | 2170 | 2125 |
| 75 | 1348 | 897 | 745 | 897 |
| 85 | 235 | 251 | 256 | 251 |
| 95 | 114 | 72 | 47 | 72 |
| 105 | 126 | 82 | 56 | 82 |
| 115 | 136 | 107 | 81 | 107 |
| 125 | 150 | 131 | 113 | 131 |
| 135 | 160 | 149 | 127 | 149 |
| 145 | 155 | 166 | 148 | 166 |
| 155 | 135 | 191 | 159 | 191 |
| 165 | 116 | 191 | 220 | 191 |
| 175 | 98 | 102 | 96 | 102 |

Light Distribution

| Degrees | Lumens | % Luminaire |
|---------|--------|-------------|
| 0-30 | 6984 | 29.7 |
| 0-40 | 11233 | 47.7 |
| 0-60 | 19040 | 80.9 |
| 0-90 | 22761 | 96.7 |
| 90-180 | 771 | 3.3 |
| 0-180 | 23532 | 100.0 |

Average Luminance

| Angle | End | 45° | Cross |
|-------|-------|-------|-------|
| 45 | 59177 | 50287 | 54250 |
| 55 | 53347 | 47077 | 34772 |
| 65 | 47445 | 32827 | 33525 |
| 75 | 34002 | 22618 | 18791 |
| 85 | 17589 | 18795 | 19185 |

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

| Ceiling (pcc) | 80% | | | 70% | | | 50% | | |
|-------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|
| | 70 | 50 | 30 | 70 | 50 | 30 | 50 | 30 | |
| Wall (pw) | | | | | | | | | |
| RCR | Zonal cavity method - Effective floor reflectance = 20% | | | | | | | | |
| Room Cavity Ratio | 0 | 118 | 118 | 118 | 115 | 115 | 115 | 109 | 109 |
| | 1 | 109 | 104 | 101 | 106 | 102 | 98 | 97 | 94 |
| | 2 | 100 | 92 | 86 | 97 | 90 | 84 | 86 | 81 |
| | 3 | 91 | 81 | 74 | 89 | 79 | 72 | 76 | 70 |
| | 4 | 84 | 72 | 64 | 81 | 70 | 63 | 68 | 61 |
| | 5 | 77 | 65 | 56 | 75 | 64 | 56 | 61 | 54 |
| | 6 | 71 | 59 | 50 | 69 | 58 | 49 | 55 | 48 |
| | 7 | 66 | 53 | 45 | 64 | 52 | 44 | 51 | 43 |
| | 8 | 62 | 49 | 40 | 60 | 48 | 40 | 46 | 39 |
| | 9 | 58 | 45 | 37 | 56 | 44 | 36 | 43 | 36 |
| | 10 | 54 | 41 | 34 | 53 | 41 | 33 | 40 | 33 |