

# 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**

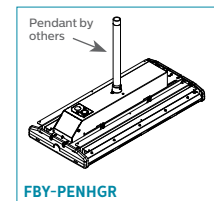
Family	Lumens (nominal) <sup>1</sup>	Color Temperature	Voltage	Options
<b>FBY</b>	—	—	—	—
<b>FBY</b>	<b>12L</b> 12,000 lumens <b>18L</b> 18,000 lumens <b>24L</b> 24,000 lumens <b>30L</b> 30,000 lumens	<b>835</b> 3500K (CRI 80) <b>840</b> 4000K (CRI 80) <b>850</b> 5000K (CRI 80)	<b>UNV</b> Universal voltage 120-277V <b>120</b> 120V <b>208</b> 208V <b>240</b> 240V <b>277</b> 277V <b>347</b> 347V <b>480</b> 480V	<b>WP6<sup>2</sup></b> Wired 6' 16/3 cord & NEMA twist lock plug <b>WC6</b> Wired 6' 16/3 cord <b>WP6D<sup>2</sup></b> Wired 6' 16/3 cord & NEMA twist lock plug for line voltage and wired 6' 16/3 cord & plug for dimming control <b>WC6/4<sup>3</sup></b> Wired 6' 16/4 cord for line voltage plus unswitched hot for BSL10LST <b>WC6/5<sup>3</sup></b> Wired 6' 18/5 cord for line voltage plus 0-10V dimming <b>WC6/6<sup>3</sup></b> Wired 6' 18/6 cord for line voltage plus unswitched hot for BSL10LST plus 0-10V dimming <b>BSL10LST<sup>3</sup></b> Factory wired Philips Bodine integral emergency pack, nominal 1100 to 1400 lumens <b>MD360</b> 360° Motion detector (ON/OFF) <b>MD360D</b> 360° Motion detector (ON/DIM to 10%) <b>LCA</b> Clear acrylic lens <b>LFA</b> Frosted acrylic lens

### Footnotes

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

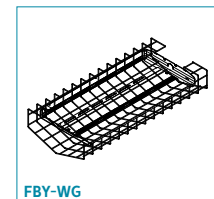
### General Notes

- 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)

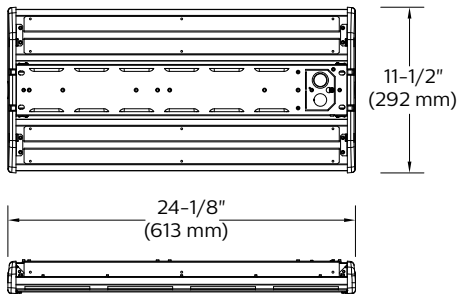
- HNH5-VHOOK** 54" chains & V hooks
- HCH5-VHOOK** 5' cables & V hooks
- HCH10-VHOOK** 10' cables & V hooks
- HCH15-VHOOK** 15' cables & V hooks
- HCH20-VHOOK** 20' cables & V hooks
- FBY-PENHGR** Pendant hanger (adds 3" to height)
- FBY-WG** Wire guard
- FBX-SLCA-2N** Clear acrylic snap lens
- FBX-SLFA-2N**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



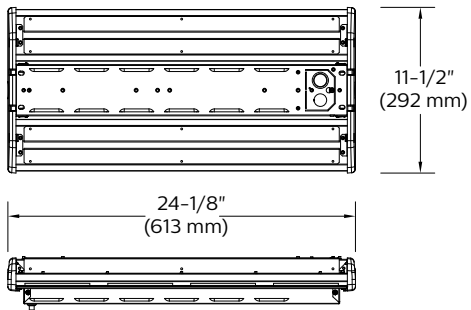
# FBY LED high bay

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

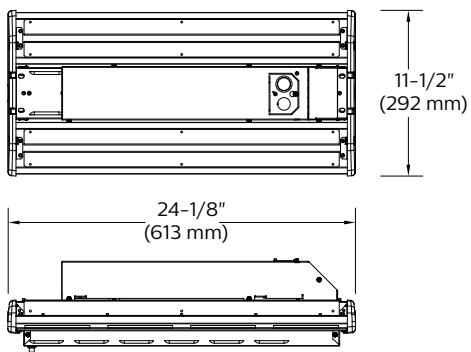
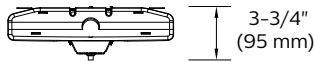
## Dimensions



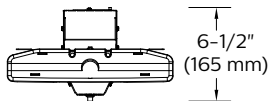
STANDARD FBY



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](http://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

# FBY LED high bay

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

## Photometry (continued)

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

Catalog No.	FBY24L840-UNV-LFA
Test No.	39991
S/MH	1.2
Lamp Type	LED
Lumens/Lamp	22055
Input Watts	176
Efficacy	125

#### Candela distribution

Vertical Angle	Horizontal Angle			
	0°	45°	90°	-45°
0	8355	8355	8355	8355
5	8277	8334	8374	8334
15	7910	7855	7834	7855
25	7187	7053	6984	7053
35	6171	6008	6120	6008
45	4648	4755	4890	4755
55	3493	3649	3407	3649
65	2329	2333	2304	2333
75	1262	1263	1257	1263
85	342	376	379	376
95	124	96	76	96
105	195	105	82	105
115	263	133	104	133
125	315	158	135	158
135	340	190	152	190
145	334	227	185	227
155	305	275	224	275
165	277	292	281	292
175	254	256	250	256

Comparative yearly lighting energy cost per 1000 lumens – **\$1.92** based on 3000 hrs. and \$.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.

#### Light Distribution

Degrees	Lumens	% Luminaire
0-30	6258	28.4
0-40	10031	45.5
0-60	16828	76.3
0-90	20948	95.0
90-180	1107	5.0
0-180	22055	100.0

#### Average Luminance

Angle	End	45°	Cross
45	42919	43907	45150
55	39758	41537	38779
65	35977	36034	35599
75	31825	31863	31706
85	25635	28174	28384

#### 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	108	108
	1	108	103	99	105	100	97	95	92
	2	98	90	84	95	88	82	84	79
	3	90	80	72	87	78	70	74	68
	4	82	71	62	80	69	61	66	59
	5	76	63	55	74	62	54	59	52
	6	70	57	49	68	56	48	54	46
	7	65	52	43	63	51	43	49	42
	8	61	48	39	59	47	39	45	38
	9	57	44	36	55	43	35	41	34
	10	53	40	33	52	40	32	38	32

Catalog No.	Delivered Lumens	Input Watts *	Efficacy	Uplight%
FBY12L840-UNV	12139	88	138	2.7
FBY12L840-UNV-LCA	11689	88	133	3.5
FBY12L840-UNV-LFA	11085	88	126	5.6
FBY18L840-UNV	18797	133	142	2.4
FBY18L840-UNV-LCA	18037	133	136	3.4
FBY18L840-UNV-LFA	16889	133	127	5.1
FBY24L840-UNV	24748	177	140	3.5
FBY24L840-UNV-LCA	23532	176	133	3.3
FBY24L840-UNV-LFA	22055	176	125	5.0
FBY30L840-UNV	30435	208	146	2.3
FBY30L840-UNV-LCA	29316	209	140	4.0
FBY30L840-UNV-LFA	27578	208	132	4.6

\* 347V and 480V models have the same input watts.

