

# Day-Brite



by Signify

## Industrial

### FBY LED High bay

12,000 to 60,000 lumens



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.

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lumens: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

### Ordering guide

Example: FBY24L840-UNV-LCA

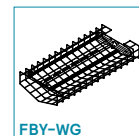
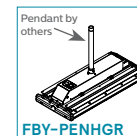
Family	Lumens (nominal) <sup>1</sup>	Color Temperature	Voltage	Options
<b>FBY</b>				
FBY	<b>12L</b> 12,000 lumens <b>18L</b> 18,000 lumens <b>24L</b> 24,000 lumens <b>30L</b> 30,000 lumens <b>36L</b> 36,000 lumens <b>48L</b> 48,000 lumens <b>60L</b> 60,000 lumens	<b>835</b> 3500K (CRI 80) <b>840</b> 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<sup>4</sup></b> 360° Motion detector (ON/OFF) <b>MD360D<sup>4</sup></b> 360° Motion detector (ON/DIM to 10%) <b>LCA</b> Clear acrylic lens <b>LFA</b> Frosted acrylic lens <b>SNH200</b> Integral EasySense sensor, daylighting with advanced grouping

### Footnotes

- Nominal delivered lumens at 25°C ambient
- Must specify line voltage
- Order proper cord option for dimming or emergency
- Not for use with SNH200 option.

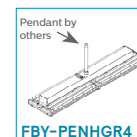
### General Notes

- 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-PENHGR4** Pendant hanger for FBY36, FBY48, and FBY60 (adds 3" to height)
- FBY-WG** Wire guard (order two for FBY36, FBY48, and FBY60)
- FBX-SLCA-2N** Clear acrylic snap lens
- FBX-SLFA-2N** Frosted acrylic snap lens
- FBX-SLCA-2W** Clear acrylic snap lens for FBY36, FBY48, and FBY60
- FBX-SLFA-2W** Frosted acrylic snap lens for FBY36, FBY48, and FBY60



# FBY LED high bay

12,000, 18,000, 24,000, 30,000 36,000, 48,000, & 60,000 lumens

## 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.
- L70 LED predicted lumen maintenance >100,000 hours.
- 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.

## SNH200 EasySense

- Philips field apps allow programming of occupancy & daylight sensing parameters and fine-tuning of light levels during

installation. It can also be used for grouping of fixtures.

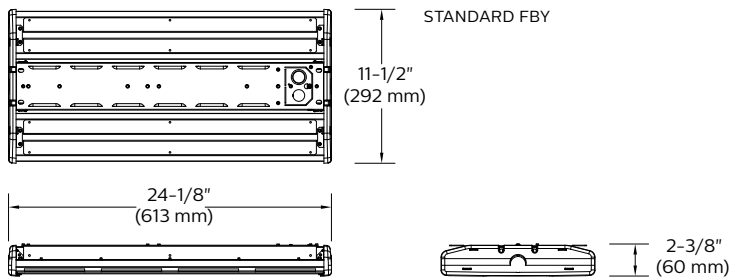
- Download "Philips field apps" from the Google Play Store.
- Register for the commissioning app at <http://registration.componentcloud.philips.com/appregistration/>.
- The app works on certain Android phones with NFC or IR. See Recommended Phones and the EasySense App User Manual in the download section at <http://www.usa.lighting.philips.com/products/lighting-components/easysense> and follow the "View Downloads" link to register for access to the download area. Navigate to Connected-Lighting-Components and then Philips-EasySense-Sensors to find downloads.

# FBY LED high bay

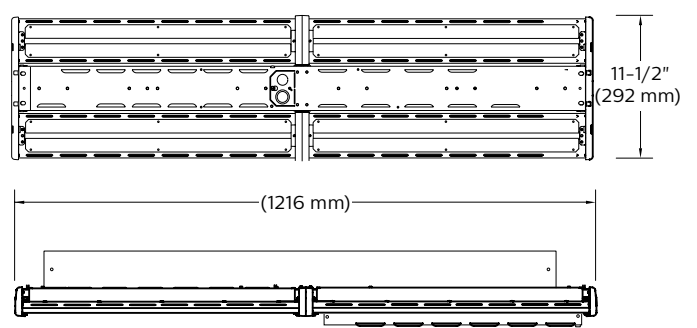
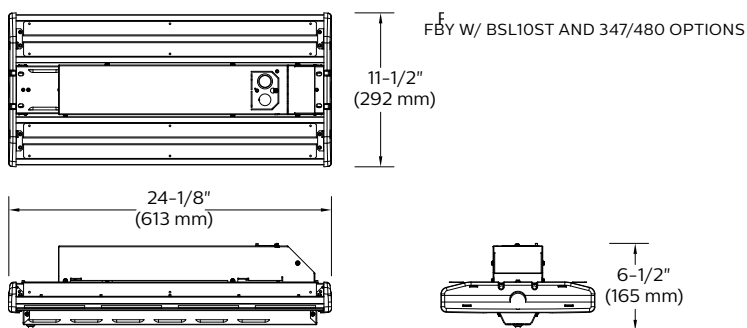
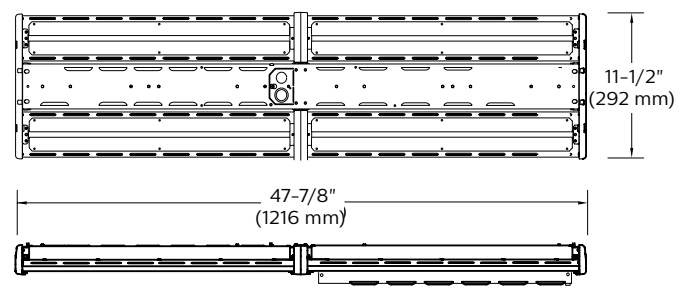
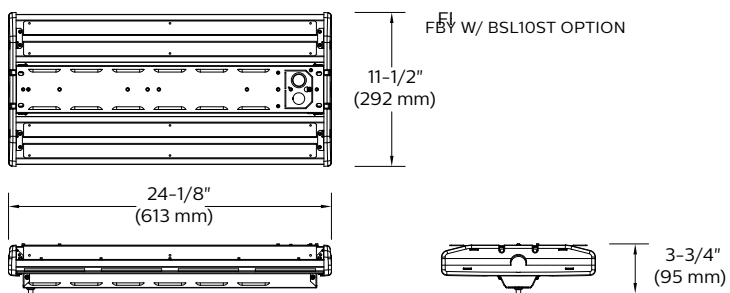
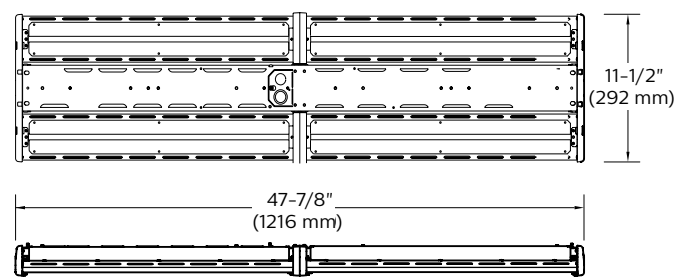
12,000, 18,000, 24,000, 30,000 36,000, 48,000, & 60,000 lumens

## Dimensions

### 12,000lm - 30,000lm



### 36,000lm - 60,000lm



# FBY LED high bay

12,000, 18,000, 24,000, 30,000 36,000, 48,000, & 60,000 lumens

## Photometry

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

Catalog No.	FBY24L840-UNV	<b>Candela distribution</b>				<b>Light Distribution</b>			<b>Average Luminance</b>				
Test No.	39981	<b>Vertical Angle</b>	<b>Horizontal Angle</b>				<b>Degrees</b>	<b>Lumens</b>	<b>% Linaire</b>	<b>Angle</b>	<b>End</b>	<b>45°</b>	<b>Cross</b>
S/MH	1.0	<b>0°</b>	<b>45°</b>	<b>90°</b>	<b>-45°</b>	<b>0-30</b>	7094	28.7	<b>45</b>	61608	56669	57032	
Lamp Type	LED	<b>5</b>	9226	9324	9359	9324	<b>0-40</b>	11466	46.3	<b>55</b>	57290	48239	36303
Lumens/Lamp	24748	<b>15</b>	8987	9023	9017	9023	<b>0-60</b>	19649	79.4	<b>65</b>	54261	39759	35384
Input Watts	177	<b>25</b>	8467	8303	6893	8303	<b>0-90</b>	23883	96.5	<b>75</b>	46401	21588	24030
Efficacy	140	<b>35</b>	7724	6077	7031	6077	<b>90-180</b>	865	3.5	<b>85</b>	26466	18436	18481
		<b>45</b>	6672	6137	6177	6137	<b>0-180</b>	24748	100.0				
		<b>55</b>	5033	4238	3189	4238							
		<b>65</b>	3512	2574	2290	2574							
		<b>75</b>	1839	856	953	856							
		<b>85</b>	353	246	247	246							
		<b>95</b>	99	94	73	94							
		<b>105</b>	124	107	85	107							
		<b>115</b>	154	137	113	137							
		<b>125</b>	175	155	146	155							
		<b>135</b>	188	169	154	169							
		<b>145</b>	183	176	162	176							
		<b>155</b>	166	162	160	162							
		<b>165</b>	146	152	140	152							
		<b>175</b>	127	128	120	128							

Comparative yearly lighting energy cost per 1000 lumens – <b>\$1.70</b> 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.												

<b>Coefficients of Utilization</b>												
<b>EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)</b>												
Ceiling (pcc)		80%			70%			50%				
Wall (pw)		70	50	30	70	50	30	50	30			
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

Catalog No.	FBY24L840-UNV-LCA	<b>Candela distribution</b>				<b>Light Distribution</b>			<b>Average Luminance</b>				
Test No.	39993	<b>Vertical Angle</b>	<b>Horizontal Angle</b>				<b>Degrees</b>	<b>Lumens</b>	<b>% Linaire</b>	<b>Angle</b>	<b>End</b>	<b>45°</b>	<b>Cross</b>
S/MH	1.1	<b>0°</b>	<b>45°</b>	<b>90°</b>	<b>-45°</b>	<b>0-30</b>	6984	29.7	<b>45</b>	59177	50287	54250	
Lamp Type	LED	<b>5</b>	9028	9092	9182	9092	<b>0-40</b>	11233	47.7	<b>55</b>	53347	47077	34772
Lumens/Lamp	23532	<b>15</b>	8784	8837	8875	8837	<b>0-60</b>	19040	80.9	<b>65</b>	47445	32827	33525
Input Watts	176	<b>25</b>	8252	8197	7032	8197	<b>0-90</b>	22761	96.7	<b>75</b>	34002	22618	18791
Efficacy	133	<b>35</b>	7487	6221	6508	6221	<b>90-180</b>	771	3.3	<b>85</b>	17589	18795	19185
		<b>45</b>	6409	5446	5875	5446	<b>0-180</b>	23532	100.0				
		<b>55</b>	4687	4136	3055	4136							
		<b>65</b>	3071	2125	2170	2125							
		<b>75</b>	1348	897	745	897							
		<b>85</b>	235	251	256	251							
		<b>95</b>	114	72	47	72							
		<b>105</b>	126	82	56	82							
		<b>115</b>	136	107	81	107							
		<b>125</b>	150	131	113	131							
		<b>135</b>	160	149	127	149							
		<b>145</b>	155	166	148	166							
		<b>155</b>	135	191	159	191							
		<b>165</b>	116	191	220	191							
		<b>175</b>	98	102	96	102							

Comparative yearly lighting energy cost per 1000 lumens – <b>\$1.79</b> 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.												

<b>Coefficients of Utilization</b>												
<b>EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)</b>												
Ceiling (pcc)		80%			70%			50%				
Wall (pw)		70	50	30	70	50	30	50	30			
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

12,000, 18,000, 24,000, 30,000 36,000, 48,000, & 60,000 lumens

## Photometry (continued)

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

Catalog No.	FBY24L840-UNV-LFA	<b>Candela distribution</b>				<b>Light Distribution</b>			<b>Average Luminance</b>				
Test No.	39991	<b>Vertical Angle</b>	<b>Horizontal Angle</b>				<b>Degrees</b>	<b>Lumens</b>	<b>% Luminaire</b>	<b>Angle</b>	<b>End</b>	<b>45°</b>	<b>Cross</b>
S/MH	1.2	<b>0°</b>	<b>45°</b>	<b>90°</b>	<b>-45°</b>	<b>0-30</b>	6258	28.4	<b>45</b>	42919	43907	45150	
Lamp Type	LED	<b>5</b>	8355	8355	8355	<b>0-40</b>	10031	45.5	<b>55</b>	39758	41537	38779	
Lumens/Lamp	22055	<b>15</b>	8277	8334	8374	<b>0-60</b>	16828	76.3	<b>65</b>	35977	36034	35599	
Input Watts	176	<b>25</b>	7910	7855	7834	<b>0-90</b>	20948	95.0	<b>75</b>	31825	31863	31706	
Efficacy	125	<b>35</b>	4648	4755	4890	<b>90-180</b>	1107	5.0	<b>85</b>	25635	28174	28384	
		<b>45</b>	3493	3649	3407								
		<b>55</b>	6171	6008	6120								
		<b>65</b>	2329	2333	2304								
		<b>75</b>	1262	1263	1257								
		<b>85</b>	342	376	379								
		<b>95</b>	124	96	76								
		<b>105</b>	195	105	82								
		<b>115</b>	263	133	104								
		<b>125</b>	315	158	135								
		<b>135</b>	340	190	152								
		<b>145</b>	334	227	185								
		<b>155</b>	305	275	224								
		<b>165</b>	277	292	281								
		<b>175</b>	254	256	250								

Comparative yearly lighting energy cost per 1000 lumens – <b>\$1.92</b> 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.									

<b>Coefficients of Utilization</b>									
<b>EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)</b>									
Ceiling (pcc)	80%			70%			50%		
Wall (pw)	70	50	30	70	50	30	50	30	
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
FBY36L840-UNV	39683	268	148	2.6
FBY36L840-UNV-LCA	37844	267	142	3.5
FBY36L840-UNV-LFA	35176	269	131	5.1
FBY48L840-UNV	50849	356	143	2.7
FBY48L840-UNV-LCA	48521	355	137	3.5
FBY48L840-UNV-LFA	45050	355	127	5.1
FBY60L840-UNV	62499	423	148	2.7
FBY60L840-UNV-LCA	59257	420	141	3.5
FBY60L840-UNV-LFA	55837	421	133	3.9

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

