emLITE

PROJECT:

TYPE:

CATALOG #:

OVERVIEW

The FHB series is a group of full-body, premium-performance LED high bay luminaires, designed to illuminate a wide variety of settings, including commercial warehouses, manufacturing plants, sporting venues and big-box retailers. The optional factory-installed Signtex Emergency Lighting Control option ensures full emergency code compliance at the lowest possible cost.

SPECIAL FEATURES

- **Emergency lighting from 1,400 Lm to 5,600 Lm with adjustable Emergency Lighting Control (ELC), powered from a Signtex low-voltage central battery system. See Page 3 for details.**
- Available with factory-installed UL Listed Emergency Lighting Control (ELC), for connection to a Signtex central battery, DC emergency power system.
- Complies with NEC 700.24 without requiring listing of luminaire to UL 924.
- Available in 4000k (neutral white) and 5000k (cool white) color temperatures*
- Long-life LEDs provide 122,000 hours of operation with at least 70% of initial lumen output (L_{70})**
- Delivers from 12,193 lumens (140 lumens per watt, LPW) to 60,629 lumens (142 LPW)*
- Universal 120-277 AC voltage (50-60Hz) is standard. Step-down transformers are required for 347-480V applications
- ELC models are available with 480VAC input option
- 0-10vdc dimming drivers are standard: Power Factor > 0.90: Total Harmonic Distortion < 20%
- Color rendering index > 80
- Chain mounting with V-hooks is standard
- Easy installation in new construction or retrofit

* Contact factory for other color temperatures and lumen packages.

** L70 hours are IES TM-21-11 calculated hours.

Not compatible with 347-480V models or emergency drivers.

OPTIONS

- Surface mounting kits provides attachment to flat ceilings
- Pendant mounting kits provides pendant attachment to junction boxes
- Cable mounting kits provide suspension at two lengths (i.e., 3 & 5 meters)
- Accessories include lenses (clear & diffused), wire-guard kits, surface-mounting kits, pendant-mounting kits, and cable-mounting kits

WARRANTY & LISTINGS

- cULus listed for damp locations in ambient temperatures from -20°C to 50°C (-4°F to 122°F)
- Flicker-free per IEEE1789-2015 (low risk of adverse effects of flicker at 100% light output level)
- Complies with RoHS (Restriction on Hazardous Substances) requirements.
- Complies with FCC Part 15, class A
- Complies with IEEE C.62.41-1991, input transient protection (2.5kV)
- View Signtex Warranty for further details

FIXTURE ORDERING INFORMATION *EXAMPLE:* FHB-90-12L-MV-4K-ELCP14P2

FHB

SERIES	POWER WATTS	LUMENS[2]		LENSING[1]		VOLTAGE		COLOR TEMP		OPTIONS[1]	
FHB	90	12L	12000Lm	[Blank]	No Lens	MV	120-277VAC	4K	4000K	ELCPXX	Emergency Lighting Control
	135	18L	18000Lm	CL	Clear Lens	UNC	347-480VAC	5K	5000K	EMXX/ECXX	Emergency Driver
	180	24L	24000Lm	DL	Diffuse					OS	Occupancy Sensor Passive Infared
	215	30L	30000Lm		Lens					ODS	Occupancy Sensor Microwave
	265	38L	38000Lm							WGKXX	Wire Guard
	320	44L	44000Lm							SMKXX	Surface Mount Kit
	425	60L	60000Lm							PMKX	Pendant Mount Kit
										CMS	Cable Mount Kit

*"XX"= VARIES WITH FIXTURE SIZE AND POWER. SEE OPTIONS TABLE FOR COMPLETE PART NUMBER.

Signtex Inc LIGHTING
INTELLIGENT EMERGENCY LIGHTING SYSTEMS

[1] See Option Detail Tables [2] Average values. Contact factory for specific value.

ELECTRICAL DATA

MODEL	COLOR TEMP.	CRI[1]	LUMINAIRE LUMENS	LUMINAIRE WATTS	LUMENS/ WATT	INPUT VOLTAGE[2]	INPUT CURRENT (A)			POWER FACTOR	THD[3]	L70 HOURS[4]
							120V	240V	277V			
FHB-90-12L-MV-4K	4000k	>80	12,193	87	140	120-277	0.73	0.36	0.31	>90%	<20%	122,000
FHB-90-12L-MV-5K	5000k	>80	12,394	87	142	120-277	0.73	0.36	0.31	>90%	<20%	122,000
FHB-135-18L-MV-4K	4000k	>80	18,401	132	139	120-277	1.10	0.55	0.48	>90%	<20%	122,000
FHB-135-18L-MV-5K	5000k	>80	18,564	132	141	120-277	1.10	0.55	0.48	>90%	<20%	122,000
FHB-180-24L-MV-4K	4000k	>80	24,457	175	140	120-277	1.46	0.73	0.63	>90%	<20%	122,000
FHB-180-24L-MV-5K	5000k	>80	24,603	175	141	120-277	1.46	0.73	0.63	>90%	<20%	122,000
FHB-215-30L-MV-4K	4000k	>80	29,929	213	141	120-277	1.78	0.89	0.77	>90%	<20%	122,000
FHB-215-30L-MV-5K	5000k	>80	30,356	213	143	120-277	1.78	0.89	0.77	>90%	<20%	122,000
FHB-265-38L-MV-4K	4000k	>80	37,590	267	141	120-277	2.23	1.11	0.96	>90%	<20%	122,000
FHB-265-38L-MV-5K	5000k	>80	37,996	267	142	120-277	2.23	1.11	0.96	>90%	<20%	122,000
FHB-320-44L-MV-4K	4000k	>80	44,235	320	138	120-277	2.67	1.33	1.16	>90%	<20%	122,000
FHB-320-44L-MV-5K	5000k	>80	44,460	320	139	120-277	2.67	1.33	1.16	>90%	<20%	122,000
FHB-425-60L-MV-4K	4000k	>80	59,278	428	139	120-277	3.57	1.78	1.55	>90%	<20%	122,000
FHB-425-60L-MV-5K	5000k	>80	60,629	428	142	120-277	3.57	1.78	1.55	>90%	<20%	122,000

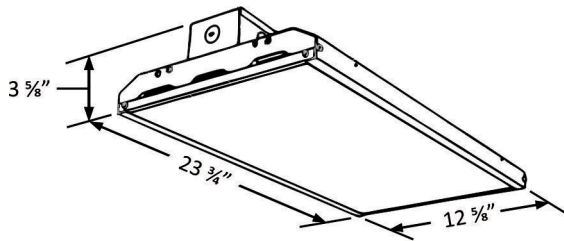[1] Color rendering index.
[2] All 50-60Hz.
[3] Total harmonic distortion.
[4] L_{70} refers to the number of hours at which lumen output declines to 70% of the initial level. L_{70} hours are IES TM-21-11 calculated hours.
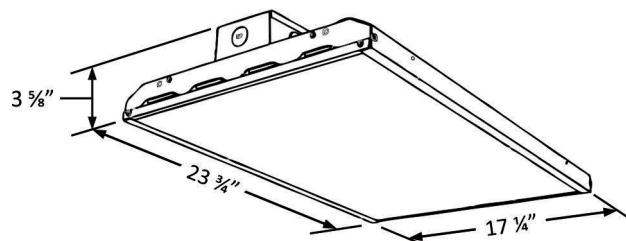
PHOTOMETRIC DATA
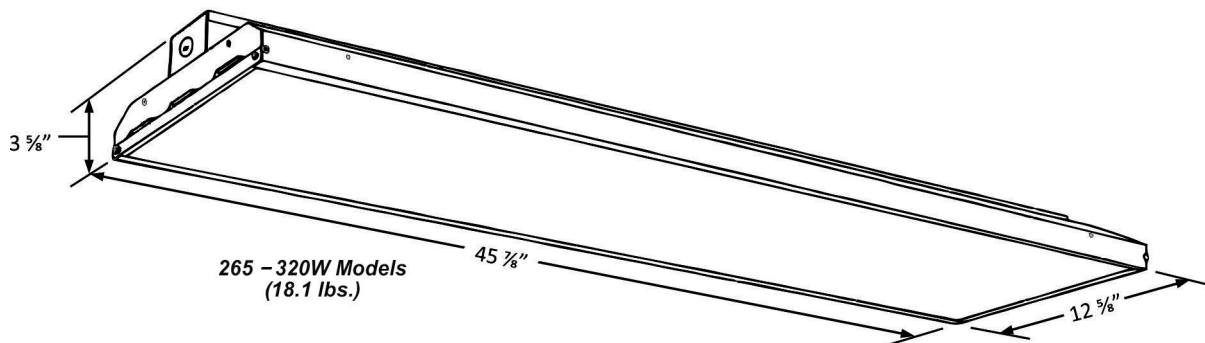
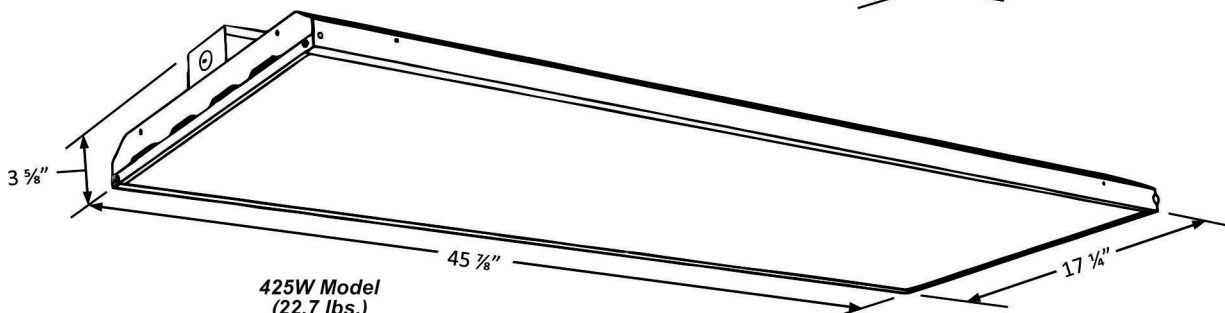• IES Files and Zonal Lumen Summaries and Polar Diagrams

DIMENSIONS

90 − 180W Models
(9.9 − 11.0 lbs.)

3 ⅝"
23 ¾"
12 ⅝"

215W Model
(14.0 lbs.)

3 ⅝"
23 ¾"
17 ¼"

265 − 320W Models
(18.1 lbs.)

3 ⅝"
45 ⅞"
12 ⅝"

425W Model
(22.7 lbs.)

3 ⅝"
45 ⅞"
17 ¼"

OPTIONS

EMERGENCY LIGHTING CONTROLS (ELC) *For use with Central Battery Systems (purchased separately)*

MODEL	OPTION CODE				
	ELC10P2	**ELC14P2**	**ELC15P4**	**ELC25P4**	**ELC40P4**
	EM Lumens[1]	EM Lumens[2]	EM Lumens[1]	EM Lumens	EM Lumens[2]
FHB90	1400	1960	-	-	-
FHB135	1400	1960	-	-	-
FHB180	-	-	2100	3500	5600
FHB215	-	-	2100	3500	5600
FHB265	-	-	2100	3500	5600
FHB320	-	-	2100	3500	5600
FHB425	-	-	2100	3500	5600

[1] Minimum [2] Maximum
Note: Lumen output is factory adjustable. Contact factory for specific values.
Learn more about ELC's on our website, www.signtexinc.com.

Emergency Lighting with ELC

The following Point-to-Point sample shows typical performance in the medium power range for both fixture and ELC, based on IES files and using a light loss factor (LLF) calculated as follows:
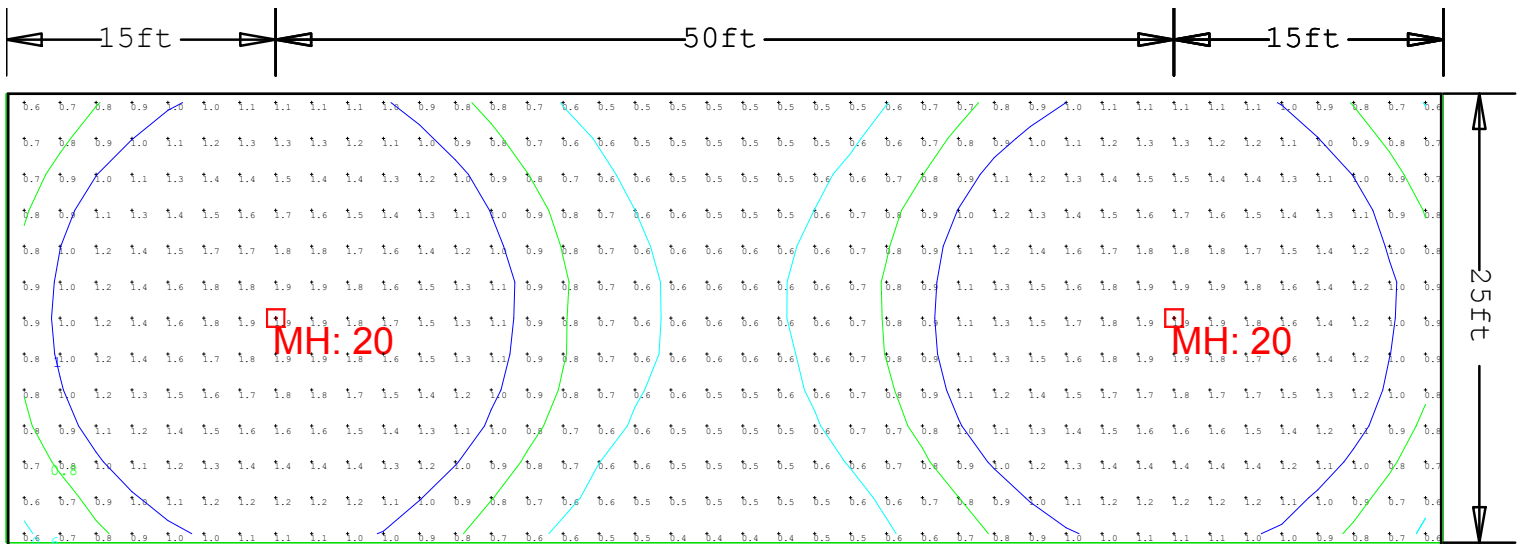
LIGHT LOSS FACTOR = ELC Emergency Power (Watts)*/ Fixture Normal Power (Watts)
LLF = ELC Emergency Power* (Watts)   *Power value and ELC Type are given in the OPTION CODE above.
          Fixture Normal Power (Watts)   Example: ELC10P1 = 10 Watts Emergency Power for 90 mins: Package Type P1

The calculation is based on illumination values given in NFPA 101 and NEC 70, which stipulate an initial minimum average of 1 Fc at floor level, a minimum of 0.1 Fc at any point, and a uniformity ratio no higher than 40:1. NOTE, values are allowed to decrease 40% after 90 minutes, but ELC is a constant power device so emergency illumination does NOT decrease.

MODEL	ELC OPTION #	ELC POWER	EMERGENCY LUMENS	LLF	MOUNT HEIGHT	AVG. LUMENS ON PATHWAY	MAX/MIN UNIFORMITY
FHB215	ELC15P4	15 Watts	2143	0.07	20 FT.	1.06 Fc	4.75

EMERGENCY DRIVERS *With integral batteries*

MODEL	OPTION CODE[12]			
	EM12/EC12	EM16/EC16	EM20/EC20	EM24/EC24
	LUMENS	LUMENS	LUMENS	LUMENS
FHB90	1092	1498	1918	2380
FHB135	1084	1487	1904	2363
FHB180	1092	1498	1918	2380
FHB215	1100	1509	1932	2397
FHB265	1100	1509	1932	2397
FHB320	1076	1477	1891	2346
FHB425	1084	1487	1904	2363

[1] Emergency drivers available for 120/277VAC only [2] EC Drivers are California Emergency Commission (CEC) Listed

COMPATIBLE DIMMERS

MANUFACTURE	MODEL NO.	DIMMING RANGE	LOAD SWITCHING CAPACITY
Lutron	DVSTV	10% - 100%	450W
Leviton	IP710-LFZ	10% - 100%	120W
General Protecht	DMD-LED3-102	10% - 100%	600W

LENSES, WIRE GUARDS, SURFACE & PENDANT MOUNTS, EXTENDED CABLE MOUNT

MODEL	OPTION CODES					
	CLEAR LENS	DIFFUSE LENS	WIRE GUARD	SURFACE MOUNT KIT	PENDANT MOUNT KIT	CABLE MOUNT 3M
FHB90	CL12X23	DL12X23	WG12X23	SMK12	PM12	CM3
FHB135	CL12X23	DL12X23	WG12X23	SMK12	PM12	CM3
FHB180	CL12X23	DL12X23	WG12X23	SMK12	PM	CM3
FHB215	CL17X23	DL17X23	WG17X23	SMK17	PM	CM3
FHB265	CL12X45	DL12X45	WG12X45	SMK12	PM	CM3
FHB320	CL12X45	DL12X45	WG12X45	SMK12	PM	CM3
FHB425	CL17X45	DL17X45	WG17X45	SMK17	PM	CM3