



LIGHTING

BIAXIAL (LONG TWIN TUBE)



Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III, Div. 1 & 2
NEMA 3, 4X, 7(C,D) 9(E,F,G)
Suitable for wet locations
Suitable for paint spray booths

UL LISTED - File E12976 and E89665 (Marine)
SP Certified - File LR11713

Applications

Biaxial single ended lamp type HFX-T fixtures provide greater efficiency and lumen output than standard models. Designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4X areas where wind, water and snow can be expected. They can also be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible ducts as defined by the NEC.

Typical applications include classified areas such as inside paint spray booths, paint manufacturing plants, ammunition facilities, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

Features

- UL Listed and labeled for use inside paint spray booths and rooms
- 2' nominal compact models facilitate use in areas too small for nominal 4' models, or where the light must be confined
- Standard ballast is 120-277V at 50/60 Hz
- 0°F starting temperature

See page L209 for HFXE Emergency Models

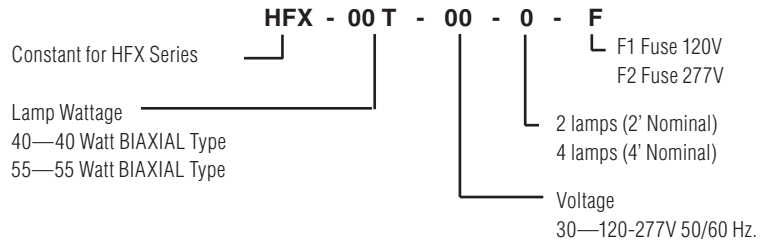
- Construction is strong lightweight corrosion resistant copper-free aluminum alloy, less than 4/10 of 1%
- All external hardware is corrosion resistant 316 stainless steel
- UL Listed externally fused ballast option; protects fixture on line side of ballast, prevents ballast burnout
- Suitable for use in both indoor and outdoor wet locations
- Relamping easily accomplished by removing screw in cap and socket
- Factory sealed construction

- Extruded aluminum reflectors are easily removable for cleaning. White baked enamel finish

Compliances

- UL-1570, Standard for Fluorescent Lighting Fixtures
- UL Marine Type Lighting Fixtures
- UL-844, Standard for Lighting Fixtures for Hazardous Locations
- CSA C22.2 137-M1981
- Meets requirements of NFPA 70-1987 Article 516 and NFPA standard 33

Catalog Number Logic



HFX-T BIAXIAL TYPE LIGHT FIXTURES ① ②				
CATALOG NUMBER	CONDUIT SIZE	LINE VOLTAGE	DESCRIPTION	PROFILE
HFX-40T-302	3/4"	120V-277V 50/60 Hz	2' 2 Lamp 40W BIAXIAL T5	 Two Glass Tubes 2' or 4' Nominal
HFX-55T-302			2' 2 Lamp 55W BIAXIAL T5	
HFX-40T-304			4' 4 Lamp 40W BIAXIAL T5	
HFX-55T-304			4' 4 Lamp 55W BIAXIAL T5	

① See page L171 for ballast current information.
 ② Consult HFX page L172 for dimensions and accessories.

HFX-T, HFXE-T HAZARDOUS LOCATION APPLICATION DATA												
DESCRIPTION	RATED AMBIENT °C	SUITABLE FOR °C SUPPLY WIRE	CLASS I, DIV. 1 & 2 MAX. SURFACE TEMP			CLASS II, DIV. 1 & 2 MAX. SURFACE TEMP			CLASS III DIV. 1 & 2 SUITABILITY	UL MARINE	PAINT SPRAY SUITABLE	NEMA 3 & 4X
			TEMP.	T-CODE	GROUPS	TEMP.	T-CODE	GROUPS				
HFX-T 40W 2 LAMP	40	60	85	T6	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX-T 55W 2 LAMP	40	60	85	T6	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX-T 40W 4 LAMP	40	60	85	T6	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX-T 55W 4 LAMP	40	60	85	T6	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes



BIAXIAL LONG TWIN TUBE ACCESSORIES, PHOTOMETRIC DATA



4' Nominal Style

**FLUORESCENT FIXTURE-
HFX-40T-302**

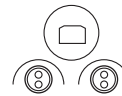
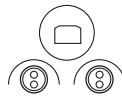
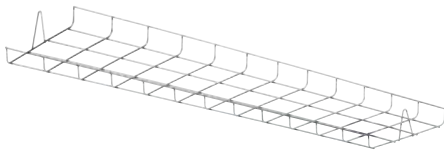
Lamp Type F40/2G11/835/RS
2' – 2 40 Watt Biaxial 3150 Lumens each.
Total Bare Lamp Lumens 6300
For 55W Biaxial multiply by 1.52.

**FLUORESCENT FIXTURE-
HFX-40T-304**

Lamp Type F40/2G11/835/RS
4' – 4 40 Watt Biaxial 3150 Lumens each.
Total Bare Lamp Lumens 12600
For 55W Biaxial multiply by 1.52.



2' Nominal Style

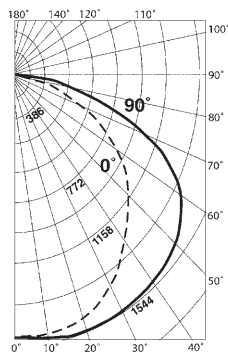


ZONAL LUMENS	
ZONE	LUMENS
0-30	826
0-40	1447
0-60	2977
0-90	4638

ZONAL LUMENS	
ZONE	LUMENS
0-30	2197
0-40	3685
0-60	7050
0-90	9559

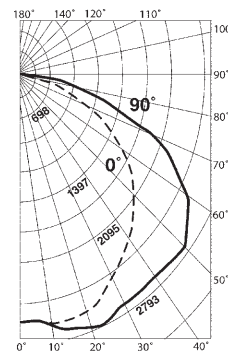
WIRE GUARD ①	
CATALOG NUMBER	DESCRIPTION
2HFX-G2	302 HFX-T Models
2HFX-G4	304 HFX-T Models

① 316 Stainless Steel



VERT. ANGLE	0	22.5	45	67.5	90	ZONAL LUMENS
0.0	1530	1530	1530	1530	1530	1530
5.0	1533	1524	1520	1533	1531	145.8
10.0	1515	1509	1515	1527	1536	1536
15.0	1484	1486	1508	1531	1544	428.0
20.0	1435	1453	1492	1526	1543	1543
25.0	1379	1410	1464	1511	1540	676.4
30.0	1310	1355	1427	1485	1530	1236
35.0	1227	1286	1377	1448	1490	858.9
40.0	1132	1209	1313	1403	1440	440.0
45.0	1026	1123	1242	1354	1389	953.7
50.0	913	1024	1168	1287	1326	1236
55.0	783	902	1063	1205	1236	941.8
60.0	649	781	962	1094	1090	1090
65.0	507	667	862	875	857	765.8
70.0	366	543	641	601	600	600
75.0	197	396	408	425	428	407.7
80.0	72	218	224	242	240	240
85.0	14	74	56	52	51	58.8
90.0	1	10	6	7	8	8

Efficiency 83.2%



VERT. ANGLE	0	22.5	45	67.5	90	ZONAL LUMENS
0.0	2625	2625	2625	2625	2625	2625
5.0	2606	2607	2611	2617	2620	249.3
10.0	2561	2569	2582	2716	2726	2625
15.0	2521	2641	2693	2738	2756	762.6
20.0	2559	2597	2692	2766	2793	2793
25.0	2393	2450	2564	2653	2685	1181.0
30.0	2254	2335	2477	2590	2635	2635
35.0	2102	2207	2381	2528	2587	1485.7
40.0	1959	2094	2306	2502	2571	1440
45.0	1778	1951	2236	2473	2544	1707.3
50.0	1609	1793	2186	2325	2387	1277
55.0	1404	1612	1966	2169	2234	1697.1
60.0	1140	1369	1701	1890	1942	1942
65.0	928	1202	1542	1690	1698	1423.7
70.0	676	984	1288	1290	1290	1290
75.0	425	735	871	860	889	825.8
80.0	204	473	548	623	643	643
85.0	58	202	256	246	251	234.9
90.0	15	36	44	53	60	60

Efficiency 76%

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD						
% EFFECTIVE CEILING CAVITY REFLECTAN T _{cc}	80	70	50	30	10	0
% WALL REFLECTANCE T _w	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
ROOM CAVITY RATIO RCR	20% Effective Floor Cavity Reflectance					
0	.99 .99 .99 .99	.97 .97 .97	.92 .92 .92	.88 .88 .88	.85 .85 .85	.83
1	.90 .86 .82 .79	.88 .84 .81 .78	.80 .78 .75	.77 .75 .73	.74 .72 .71	.69
2	.81 .74 .68 .63	.79 .73 .67 .63	.70 .65 .61	.67 .63 .60	.64 .61 .58	.56
3	.74 .65 .58 .52	.72 .63 .57 .51	.61 .55 .50	.58 .54 .50	.56 .52 .49	.47
4	.67 .57 .49 .43	.65 .56 .49 .43	.54 .47 .42	.52 .46 .42	.50 .45 .41	.39
5	.62 .50 .43 .37	.60 .50 .42 .37	.48 .41 .36	.46 .40 .36	.44 .39 .35	.34
6	.57 .45 .37 .32	.55 .44 .37 .32	.43 .36 .31	.41 .36 .31	.40 .35 .31	.29
7	.52 .41 .33 .28	.51 .40 .33 .28	.39 .32 .28	.38 .32 .27	.36 .31 .27	.25
8	.49 .37 .30 .25	.47 .36 .30 .25	.35 .29 .24	.34 .29 .24	.33 .28 .24	.23
9	.45 .34 .27 .22	.44 .33 .27 .22	.32 .26 .22	.32 .26 .22	.31 .25 .22	.2
10	.43 .31 .24 .20	.41 .31 .24 .20	.30 .24 .20	.29 .24 .20	.28 .23 .20	.18

SPACING TO MOUNTING HEIGHT RATIO - 1.28 0-180°
SPACING TO MOUNTING HEIGHT RATIO - 1.50 90-270°

Test No. BAL12360

COEFFICIENTS OF UTILIZATION – ZONAL CAVITY METHOD						
% EFFECTIVE CEILING CAVITY REFLECTAN T _{cc}	80	70	50	30	10	0
% WALL REFLECTANCE T _w	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
ROOM CAVITY RATIO RCR	20% Effective Floor Cavity Reflectance					
0	.90 .90 .90 .90	.88 .88 .88 .88	.84 .84 .84	.81 .81 .81	.77 .77 .77	.76
1	.82 .78 .74 .71	.80 .76 .73 .70	.73 .70 .68	.70 .68 .65	.67 .65 .63	.62
2	.74 .67 .61 .57	.72 .66 .60 .56	.63 .58 .55	.60 .56 .53	.58 .55 .52	.50
3	.67 .58 .52 .46	.65 .57 .51 .46	.55 .49 .45	.52 .48 .44	.50 .47 .43	.42
4	.61 .51 .44 .39	.59 .50 .43 .38	.48 .42 .38	.46 .41 .37	.45 .40 .37	.35
5	.56 .45 .38 .33	.54 .44 .38 .33	.43 .37 .32	.41 .36 .32	.40 .35 .31	.30
6	.51 .41 .33 .28	.50 .40 .33 .28	.38 .32 .28	.37 .32 .28	.36 .31 .27	.26
7	.47 .37 .30 .25	.46 .36 .29 .25	.35 .29 .24	.34 .28 .24	.33 .28 .24	.22
8	.44 .33 .27 .22	.43 .33 .26 .22	.32 .26 .22	.31 .25 .22	.30 .25 .21	.20
9	.41 .30 .24 .20	.40 .30 .24 .20	.29 .23 .19	.28 .23 .19	.27 .23 .19	.18
10	.38 .28 .22 .18	.37 .28 .22 .18	.27 .21 .17	.26 .21 .17	.25 .21 .17	.16

SPACING TO MOUNTING HEIGHT RATIO - 1.28 0-180°
SPACING TO MOUNTING HEIGHT RATIO - 1.52 90-270°

Test No. BAL12361

See page L209 for HFXE Emergency Models



LIGHTING

FLUORESCENT FIXTURES



Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III, Div. 1 & 2
NEMA 3, 4X, 7(C,D) 9(E,F,G)
Suitable for wet locations
Suitable for paint spray booths

UL LISTED - File E12976 and E89665 (Marine)
SP Certified - File LR11713

FEATURES-SPECIFICATIONS

Applications

HFX Series fluorescent fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4X areas where wind, water and snow can be expected. They can also be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible ducts as defined by the NEC.

Typical applications include classified areas such as inside paint spray booths, paint manufacturing plants, ammunition facilities, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

- Extruded aluminum reflectors are easily removable for cleaning. White baked enamel finish
- Optional 316 stainless steel wire guard for added protection
- Threaded O-Ring gasketed covers provide easy access to lamp chambers, ballast and wiring compartment
- UL Listed externally fused ballast option; protects fixture on line side of ballast, prevents ballast burnout
- Suitable for use in both indoor and outdoor wet locations
- Relamping from either end permits easy access, speed and flexibility in relamping

- Spring loaded sockets on both lamp ends provide positive electrical contact and improved vibration resistance

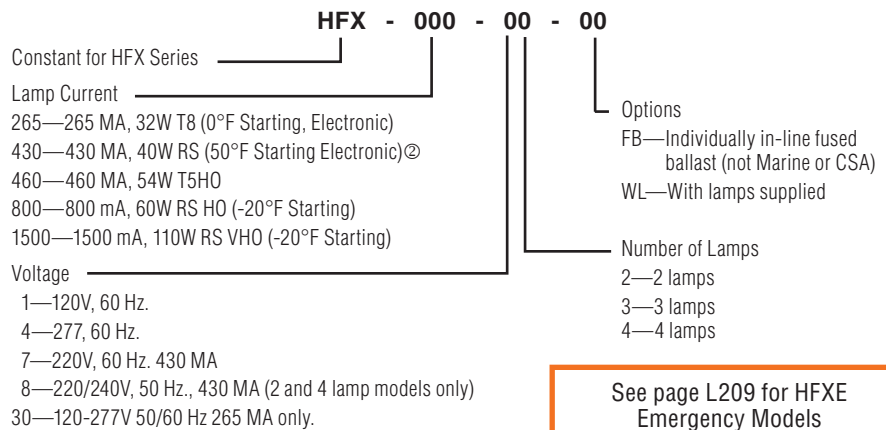
Compliances

- UL-1570, Standard for Fluorescent Lighting Fixtures
- UL Marine Type Lighting Fixtures
- UL-844, Standard for Lighting Fixtures for Hazardous Locations
- CSA C22.2 137-M1981
- Meets requirements of NFPA 70-1987 Article 516 and NFPA standard 33

Features

- UL Listed and labeled for use inside paint spray booths and rooms
- Construction is strong lightweight corrosion resistant copper-free aluminum alloy, less than 4/10 of 1%
- Class P ballast(s) with internal automatic thermally activated protective device
- All external hardware is corrosion resistant 316 stainless steel to provide maintenance free long life
- UL factory sealed construction (no external seals required). Saves installation time and cost
- Electronic energy efficient ballasts are standard on 430 MA fixtures and meet the requirements of many states

Catalog Number Logic



See page L209 for HFXE Emergency Models

HFX, HFXE HAZARDOUS LOCATION APPLICATION DATA ①													
DESCRIPTION	LAMP WATTS	RATED AMBIENT °C	SUITABLE FOR °C SUPPLY WIRE	CLASS I, DIV. 1 & 2 MAX. SURFACE TEMP			CLASS II, DIV. 1 & 2 MAX. SURFACE TEMP			CLASS III DIV. 1 & 2 SUITABILITY	UL MARINE	PAINT SPRAY SUITABLE	NEMA 3 & 4
				TEMP.	T-CODE	GROUPS	TEMP.	T-CODE	GROUPS				
HFX	32	40	90	100°C	T5	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX	40	40	90	100°C	T5	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX	54	40	90	100°C	T5	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX	60	40	90	100°C	T5	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX	110	40	90	100°C	T5	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes

① Ratings apply to all 2, 3, and 4 lamp models.
 ② 430 MA ballasts 60°F start with 34 watt lamps.



FLUORESCENT FIXTURES



Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III, Div. 1 & 2
NEMA 3, 4X, 7(C,D) 9(E,F,G)
Suitable for wet locations
Suitable for paint spray booths

UL LISTED - File E12976 and E89665 (Marine)
SP Certified - File LR11713

FEATURES-SPECIFICATIONS

HFX FLUORESCENT LIGHT FIXTURES ① ②				
CATALOG NUMBER	CONDUIT SIZE	LINE VOLTAGE @60 HERTZ	DESCRIPTION	NUMBER OF LAMPS
HFX-265-302	3/4"	120V-277V 50/60 Hz	32W T8 electronic ballast 265MA	 Two Glass Tubes 4' Nominal
HFX-460-302		120V-277V 50/60 Hz	54W T5HO Electronic Ballast 460MA	
HFX-430-12		120V	40W rapid start electronic F40T12 medium Bi-Pin 430MA	
HFX-430-42		277V		
HFX-800-12		120V	60W rapid start high output F48T12/HO recessed double contact 800MA	
HFX-800-42		277V		
HFX-1500-12		120V	110W rapid start VHO F48T12/VHO recessed double contact 1500MA	
HFX-1500-42	277V			
HFX-265-303	3/4"	120V-277V 50/60 Hz	32W T8 electronic ballast 265MA	 Three Glass Tubes 4' Nominal
HFX-460-303		120V-277V 50/60 Hz	54W T5HO Electronic Ballast 460MA	
HFX-430-13		120V	40W rapid start electronic F40T12 medium Bi-Pin 430MA	
HFX-430-43		277V		
HFX-800-13		120V	60W rapid start high output F48T12/HO recessed double contact 800MA	
HFX-800-43		277V		
HFX-1500-13		120V	110w rapid start VHO F48T12/VHO recessed double contact 1500MA	
HFX-1500-43	277V			
HFX-265-304	3/4"	120V-277V 50/60 Hz	32W T8 electronic ballast 265MA	 Four Glass Tubes 4' Nominal
HFX-430-14		120V	40W rapid start electronic F40T12 medium Bi-Pin 430MA	
HFX-430-44		277V		
HFX-800-14		120V	60W rapid start high output F48T12/HO recessed double contact 800MA	
HFX-800-44		277V		
HFX-1500-14		120V	110W rapid start VHO F48T12/VHO recessed double contact 1500MA	
HFX-1500-44	277V			

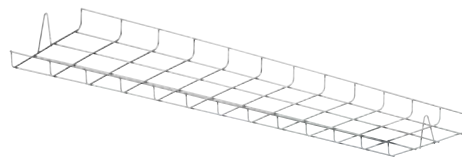
① Standard ballasts starting temperatures:
 32 Watt (265MA) Electronic 0°F
 40 Watt (430MA) Electronic 50°F, 60°F with 34 Watt lamps
 60 Watt (800MA) Electronic -20°F
 110 Watt (1500MA) Electronic -20°F

optional cold weather electromagnetic ballast (0°F starting 40 Watt 430MA) add suffix CW to catalog number.

② Optional UL listed in-line ballast fusing is available by adding suffix FB to catalog number (UL only).

③ Safety chain accessory catalog number HFX-SC available, supplied standard with 4 lamp fixtures.

WIRE GUARD	
CATALOG NUMBER	DESCRIPTION
2HFX-G4	2-Lamp 316 grade stainless steel
3HFX-G4	3-Lamp 316 grade stainless steel



See page L209 for HFXE Emergency Models

4 lamp fixture requires two 2HFX-G4 guards.