

PHILIPS Day-Brite CFI

Industrial

LED high bay FBX

8000, 12,000, 16,000, 20,000,
24,000, 36,000 or 45,000 lms



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

The Philips Day-Brite / Philips CFI LED high bay FBX provides versatility in form and function. With a range of lumen packages, optical distributions, and accessories available, this luminaire can be used in many different applications ranging from warehouses to retail outlets. SpaceWise technology is optional for additional energy savings and control.

Ordering guide

Example: FBX24LL40-UNV

Family	Lumen Package	Source	Color Temperature	Voltage	Distribution	Options
FBX		L	—	—	—	
FBX	08L 8,000 nominal delivered lumens 12L 12,000 nominal delivered lumens 16L 16,000 nominal delivered lumens 20L 20,000 nominal delivered lumens 24L 24,000 nominal delivered lumens 36L 36,000 nominal delivered lumens 45L 45,000 nominal delivered lumens	L LED	35 3500K (CRI 80) 40 4000K (CRI 80) 50 5000K (CRI 80)	UNV Universal voltage 120-277V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V	Blank General Distribution N Narrow M Medium W Wide A Aisle	WP6³ Wired 6' 16/3 Cord & NEMA Twist lock plug WC6 Wired 6' 16/3 Cord WP6D³ Wired 6' 16/3 Cord & NEMA Twist lock plug for line voltage and wired 6' purple and gray leads w/disconnect plug for dimming control WC6D Wired 6' 16/3 Cord for line voltage and wired 6' cord for dimming control MD360^{2,3} 360° Motion detector (ON/OFF) MD360D^{2,3} 360° Motion detector (ON/DIM) EMLED Emergency battery (0°C - 40°C) EMLEDC² Emergency battery cold temp (-20°C - 40°C) 55² High ambient (55°C) LCA Clear acrylic lens LFA Frosted acrylic lens LCR Clear ribbed lens LCR Frosted ribbed lens LCP Clear polycarbonate lens SP1 Optional 10KV surge protector GLR¹ Fusing, fast blow SWI⁴ SpaceWise wireless technology for integrated occupancy (50°C max.) ⁴

Footnotes

1. GLR fusing not available for 347V or 480V
2. Not available with SpaceWise (SWI) option
3. Must specify line voltage.
4. Must order **SWZ-REMOTE** SpaceWise handheld remote with each system order.

Predicted L70 Lifetime

- 40°C Ambient > 100,000 hours (based upon LED manufacturer's supplied LM-80 data and in-situ laboratory testing)

Wiring Notes

- Standard cords have 3 wires. Consult factory for other cord options.

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.
- **EMLED** and **EMLEDC** provide 3500 lumens



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Accessories (order separately)

- **FBX CHAIN KIT** 54" chains & V brackets
- **FBX-GRIP5** 5' cables & V brackets
- **FBX-GRIP10** 10' cables & V brackets
- **FBX-PENHGR** Pendant hanger (adds 3" to height)
(Not available for 36,000 or 45,000 lumen versions)
- **WG-FBX-2N** Wire guard for 8,000 and 12,000 lumen versions
- **WG-FBX-2W** Wire guard for 16,000, 20,000, and 24,000 lumen versions
- **WG-FBX-4** Wire guard for 36,000 and 45,000 lumen versions
- **SWZ-REMOTE** SpaceWise handheld remote for grouping and configuration
- **FBX-SLCA-2N** Clear acrylic snap lens for 08L and 12L
- **FBX-SLCA-2W** Clear acrylic snap lens for 16L, 20L, and 24L
- **FBX-SLCA-4** Clear acrylic snap lens for 36L and 45L
- **FBX-SLFA-2N** Frosted acrylic snap lens for 08L and 12L
- **FBX-SLFA-2W** Frosted acrylic snap lens for 16L, 20L, and 24L
- **FBX-SLFA-4** Frosted acrylic snap lens for 36L and 45L
- **FBX-SLCR-2N** Clear ribbed snap lens for 08L and 12L
- **FBX-SLCR-2W** Clear ribbed snap lens for 16L, 20L, and 24L
- **FBX-SLCR-4** Clear ribbed snap lens for 36L and 45L
- **FBX-SLFR-2N** Frosted ribbed snap lens for 08L and 12L
- **FBX-SLFR-2W** Frosted ribbed snap lens for 16L, 20L, and 24L
- **FBX-SLFR-4** Frosted ribbed snap lens for 36L and 45L

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 bracket for chain or cable hanging.
- May be cable, chain, or pendant mounted.
- 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.
- Listed by ETL to meet UL 1598 standards for damp location and -35°C to 40°C ambient. High ambient 55°C is optional.
- Dimming drivers are standard. Control is 0-10V DC.
- Optional motion detector.
- DLC Listing for most variations. Please check the DLC Qualified Products List to confirm (www.designlights.org/QPL).
- 4KV surge protection standard.

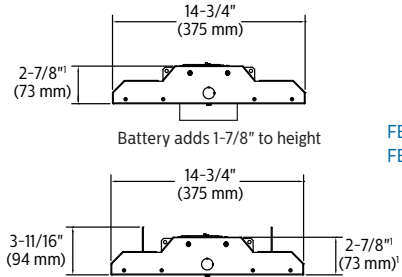
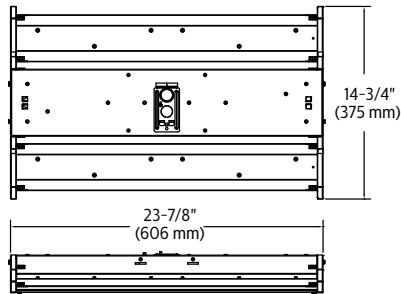
SpaceWise Technology (SWI)

- Optional SpaceWise automated wireless technology provides integrated occupancy sensing and dimming for additional control and energy savings.
- Requiring no system re-wiring, SpaceWise technology is appropriate for retrofit or new design and is an ideal replacement system for typical industrial layouts.
- Occupancy sensors are integral to each luminaire, with embedded automatic dimming behaviors appropriate to multiple applications. Applications modes are selected using the handheld remote control.
- Dimming sensors are integral to each luminaire, eliminating the need for dimming zoning. Dimming sensing is automatic and re-calibration occurs daily when luminaires turn on.
- Luminaires in large areas are grouped together up to a maximum of 50 using a handheld remote, and max light output can be tuned. Granular dimming then provides full light output for occupied areas, and non-occupied areas stay at a background level to ensure visual quality. Grouped luminaires will dim to off when no presence is detected in the group.
- SpaceWise remote control must be purchased separately.
- Visit philips.com/spacewise for more information about SpaceWise technology.

FBX LED high bay

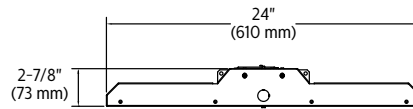
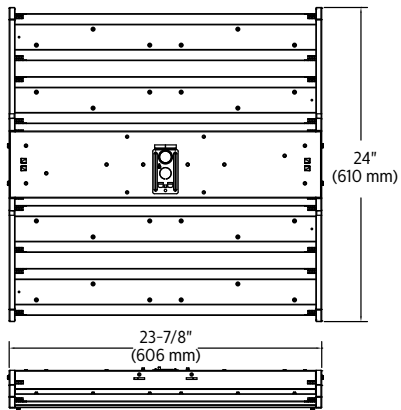
8000, 12,000, 16,000, 20,000, 24,000, 36,000 or 45,000 lms

Dimensions

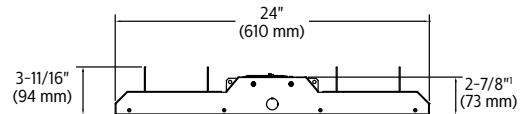


FBX08L
FBX12L

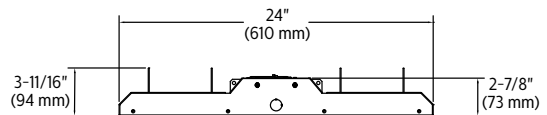
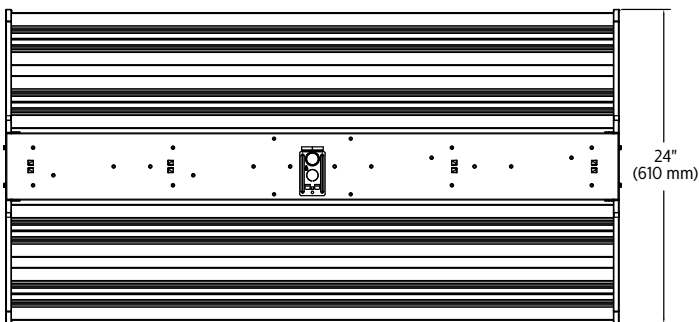
FBX08L high ambient
FBX12L high ambient



FBX16L
FBX20L
FBX24L



FBX16L high ambient
FBX20L high ambient
FBX24L high ambient



FBX36L
FBX45L

¹ 3-1/2" height for 347V or 480V models.

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

Catalog No.	FBX24LL40-UNV
Test No.	36994
S/MH	1.3
Lamp Type	LED
Lumens/Lamp	24116
Input Watts	178

Comparative yearly lighting energy cost per 1000 lumens – **\$1.76** 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.

Candela distribution

Vertical Angle	Horizontal Angle			
	0°	45°	90°	-45°
0	8924	8924	8924	1656
5	8938	8878	8878	1650
15	8683	8638	8642	1589
25	8133	8116	8102	1437
35	7349	7343	7269	1207
45	6243	6284	6314	929
55	4613	4643	4678	656
65	3105	2930	1538	417
75	1552	293	328	215
85	266	167	177	48

Light Distribution

Degrees	Lumens	% Luminaire
0-30	7035	29.2
0-40	11623	48.2
0-60	20605	85.4
0-180	24116	100.0

Average Luminance

Angle	End	45°	Cross
45	26728	26905	27034
55	24349	24510	24692
65	22241	20988	11016
75	18153	3432	3836
85	9251	5784	6159

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

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	119	119	119	116	116	116	111	111
	1	110	106	102	107	103	100	99	96
	2	101	93	87	98	91	85	88	83
	3	92	82	74	90	81	73	78	71
	4	84	73	65	82	72	64	69	62
	5	78	65	57	76	64	56	62	55
	6	72	59	50	70	58	50	56	49
	7	67	53	45	65	53	44	51	44
	8	62	49	40	60	48	40	47	39
	9	58	45	37	56	44	36	43	36
	10	54	41	33	53	41	33	40	33

LED high bay FBX, medium distribution, 24,000 nominal delivered lumens

Catalog No.	FBX24LL40-UNV-M
Test No.	37068
S/MH	1.4
Lamp Type	LED
Lumens/Lamp	24934
Input Watts	178

Comparative yearly lighting energy cost per 1000 lumens – **\$1.71** 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.

Candela distribution

Vertical Angle	Horizontal Angle			
	0°	45°	90°	-45°
0	14574	14574	14574	1656
5	14686	14606	14672	1650
15	15037	15106	15117	1589
25	13662	15466	15670	1437
35	10123	12260	12657	1207
45	3665	6413	4863	929
55	798	532	301	656
65	452	153	109	417
75	181	54	43	215
85	39	19	18	48

Light Distribution

Degrees	Lumens	% Luminaire
0-30	12560	50.4
0-40	19847	79.6
0-60	24630	98.8
0-180	24934	100.0

Average Luminance

Angle	End	45°	Cross
45	15691	27456	20821
55	4212	2808	1588
65	3235	1095	783
75	2114	629	497
85	1362	674	611

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

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	119	119	119	116	116	116	111	111
	1	113	109	107	110	107	105	103	101
	2	106	100	96	104	99	94	95	92
	3	99	92	86	97	91	85	88	83
	4	93	84	78	91	83	77	81	76
	5	87	78	71	86	77	70	75	69
	6	82	72	65	80	71	64	69	63
	7	77	66	59	76	66	59	64	58
	8	72	61	54	71	61	54	60	54
	9	68	57	50	67	56	50	55	50
	10	64	53	46	63	53	46	52	46

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Photometric Test List

Catalog No.	Test No.	Delivered Lumens	Input Watts*	Efficacy**
FBX08LL40-UNV	36703	8803	61	145
FBX08LL40-UNV-LCA	36704	8479	61	140
FBX08LL40-UNV-LFA	36705	7961	61	131
FBX08LL40-UNV-LCR	36706	7613	61	126
FBX08LL40-UNV-LFR	36707	7682	61	127
FBX08LL40-UNV-N	36708	8892	61	146
FBX08LL40-UNV-N-LCA	36709	8582	61	142
FBX08LL40-UNV-N-LFA	36710	7738	61	128
FBX08LL40-UNV-N-LCR	36711	8488	61	140
FBX08LL40-UNV-N-LFR	36712	7978	61	132
FBX08LL40-UNV-M	36713	8419	61	139
FBX08LL40-UNV-M-LCA	36714	8147	61	134
FBX08LL40-UNV-M-LFA	36715	8211	61	135
FBX08LL40-UNV-M-LCR	36716	8178	61	135
FBX08LL40-UNV-M-LFR	36717	7932	61	131
FBX08LL40-UNV-W	36718	8788	61	145
FBX08LL40-UNV-W-LCA	36719	8482	61	140
FBX08LL40-UNV-W-LFA	36720	7929	61	131
FBX08LL40-UNV-W-LCR	36721	7481	61	123
FBX08LL40-UNV-W-LFR	36722	7638	61	126
FBX08LL40-UNV-A	36723	8665	61	143
FBX08LL40-UNV-A-LCA	36724	8340	61	138
FBX08LL40-UNV-A-LFA	36725	7814	61	129
FBX08LL40-UNV-A-LCR	36726	7381	61	122
FBX08LL40-UNV-A-LFR	36727	7538	61	124
FBX12LL40-UNV	36868	12161	88	139
FBX12LL40-UNV-LCA	36869	11680	87	134
FBX12LL40-UNV-LFA	36870	11037	87	126
FBX12LL40-UNV-LCR	36871	10491	87	120
FBX12LL40-UNV-LFR	36872	10611	87	122
FBX12LL40-UNV-N	36873	12331	88	141
FBX12LL40-UNV-N-LCA	36874	11910	87	136
FBX12LL40-UNV-N-LFA	36875	10821	88	123
FBX12LL40-UNV-N-LCR	36876	11622	87	133
FBX12LL40-UNV-N-LFR	36877	11007	87	126
FBX12LL40-UNV-M	36878	12099	88	138
FBX12LL40-UNV-M-LCA	36879	11697	87	134
FBX12LL40-UNV-M-LFA	36880	10633	88	121
FBX12LL40-UNV-M-LCR	36881	11156	87	128
FBX12LL40-UNV-M-LFR	36882	10914	87	125
FBX12LL40-UNV-W	36883	12152	88	139
FBX12LL40-UNV-W-LCA	36884	11714	88	134
FBX12LL40-UNV-W-LFA	36885	10961	87	126
FBX12LL40-UNV-W-LCR	36886	10425	88	119
FBX12LL40-UNV-W-LFR	36887	10542	87	121
FBX12LL40-UNV-A	36888	11904	87	136
FBX12LL40-UNV-A-LCA	36889	11436	87	131
FBX12LL40-UNV-A-LFA	36890	10805	88	123
FBX12LL40-UNV-A-LCR	36891	10163	87	116
FBX12LL40-UNV-A-LFR	36892	10386	87	119
FBX16LL40-UNV	37213	17146	125	138
FBX16LL40-UNV-LCA	37214	16541	124	133
FBX16LL40-UNV-LFA	37215	15497	124	125
FBX16LL40-UNV-LCR	37216	15577	124	125

Catalog No.	Test No.	Delivered Lumens	Input Watts*	Efficacy**
FBX16LL40-UNV-LFR	37217	15748	124	127
FBX16LL40-UNV-N	37218	18152	125	146
FBX16LL40-UNV-N-LCA	37219	17586	124	141
FBX16LL40-UNV-N-LFA	37220	16328	124	131
FBX16LL40-UNV-N-LCR	37221	16739	124	135
FBX16LL40-UNV-N-LFR	37222	15589	124	125
FBX16LL40-UNV-M	37223	18129	125	146
FBX16LL40-UNV-M-LCA	37224	17567	124	141
FBX16LL40-UNV-M-LFA	37225	16189	124	130
FBX16LL40-UNV-M-LCR	37226	16787	124	135
FBX16LL40-UNV-M-LFR	37227	15221	124	122
FBX16LL40-UNV-W	37228	17408	125	140
FBX16LL40-UNV-W-LCA	37229	16739	124	135
FBX16LL40-UNV-W-LFA	37230	15422	124	124
FBX16LL40-UNV-W-LCR	37231	15389	124	124
FBX16LL40-UNV-W-LFR	37232	14627	124	118
FBX16LL40-UNV-A	37233	17280	125	139
FBX16LL40-UNV-A-LCA	37234	16655	124	134
FBX16LL40-UNV-A-LFA	37235	15201	124	122
FBX16LL40-UNV-A-LCR	37236	14301	124	115
FBX16LL40-UNV-A-LFR	37237	14453	124	116
FBX20LL40-UNV	36989	19618	142	138
FBX20LL40-UNV-LCA	36990	18961	142	133
FBX20LL40-UNV-LFA	36991	17622	142	124
FBX20LL40-UNV-LCR	36992	17538	142	123
FBX20LL40-UNV-LFR	36993	16721	142	118
FBX20LL40-UNV-N	37086	20570	143	144
FBX20LL40-UNV-N-LCA	37087	19849	142	140
FBX20LL40-UNV-N-LFA	37088	18510	142	130
FBX20LL40-UNV-N-LCR	37089	19234	142	135
FBX20LL40-UNV-N-LFR	37090	17750	142	125
FBX20LL40-UNV-M	37091	20544	142	145
FBX20LL40-UNV-M-LCA	37092	19919	142	140
FBX20LL40-UNV-M-LFA	37093	18361	142	129
FBX20LL40-UNV-M-LCR	37094	18231	142	128
FBX20LL40-UNV-M-LFR	37095	17479	142	123
FBX20LL40-UNV-W	37096	20054	142	141
FBX20LL40-UNV-W-LCA	37097	19268	142	136
FBX20LL40-UNV-W-LFA	37098	17626	142	124
FBX20LL40-UNV-W-LCR	37099	17531	142	124
FBX20LL40-UNV-W-LFR	37100	16569	142	117
FBX20LL40-UNV-A	37101	20310	142	143
FBX20LL40-UNV-A-LCA	37102	19563	142	137
FBX20LL40-UNV-A-LFA	37103	17336	142	122
FBX20LL40-UNV-A-LCR	37104	16228	142	114
FBX20LL40-UNV-A-LFR	37105	16435	142	116
FBX24LL40-UNV	36994	24116	178	136
FBX24LL40-UNV-LCA	36995	23178	178	131
FBX24LL40-UNV-LFA	36996	21612	178	122
FBX24LL40-UNV-LCR	36997	20473	178	115
FBX24LL40-UNV-LFR	36998	20647	178	116
FBX24LL40-UNV-N	37041	24929	178	140
FBX24LL40-UNV-N-LCA	37042	24127	178	136
FBX24LL40-UNV-N-LFA	37043	22556	178	127

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Photometric Test List (continued)

Catalog No.	Test No.	Delivered Lumens	Input Watts*	Efficacy**
FBX24LL40-UNV-N-LCR	37044	23439	178	132
FBX24LL40-UNV-N-LFR	37045	21689	178	122
FBX24LL40-UNV-M	37068	24934	178	140
FBX24LL40-UNV-M-LCA	37069	24144	178	136
FBX24LL40-UNV-M-LFA	37070	22411	178	126
FBX24LL40-UNV-M-LCR	37071	22382	178	126
FBX24LL40-UNV-M-LFR	37072	21446	178	121
FBX24LL40-UNV-W	37073	24556	178	138
FBX24LL40-UNV-W-LCA	37074	23598	178	133
FBX24LL40-UNV-W-LFA	37075	21634	178	122
FBX24LL40-UNV-W-LCR	37076	20217	178	114
FBX24LL40-UNV-W-LFR	37077	20621	178	116
FBX24LL40-UNV-A	37078	24162	178	136
FBX24LL40-UNV-A-LCA	37079	23255	178	131
FBX24LL40-UNV-A-LFA	37080	21369	177	121
FBX24LL40-UNV-A-LCR	37081	20076	177	113
FBX24LL40-UNV-A-LFR	37082	20369	178	114
FBX36LL40-UNV	37390	37114	256	145
FBX36LL40-UNV-LCA	37391	35859	256	140
FBX36LL40-UNV-LFA	37392	33561	255	131
FBX36LL40-UNV-LCR	37393	32400	255	127
FBX36LL40-UNV-LFR	37394	32438	255	127
FBX36LL40-UNV-N	37395	37692	256	147
FBX36LL40-UNV-N-LCA	37396	36527	255	143
FBX36LL40-UNV-N-LFA	37397	34433	255	135
FBX36LL40-UNV-N-LCR	37398	35941	255	141
FBX36LL40-UNV-N-LFR	37399	33581	255	132
FBX36LL40-UNV-M	37427	37772	256	148
FBX36LL40-UNV-M-LCA	37428	36639	256	143
FBX36LL40-UNV-M-LFA	37429	34321	255	134
FBX36LL40-UNV-M-LCR	37430	34553	255	135
FBX36LL40-UNV-M-LFR	37431	33203	255	130
FBX36LL40-UNV-W	37432	37443	255	147
FBX36LL40-UNV-W-LCA	37433	36049	255	141

Catalog No.	Test No.	Delivered Lumens	Input Watts*	Efficacy**
FBX36LL40-UNV-W-LFA	37434	33446	255	131
FBX36LL40-UNV-W-LCR	37435	31990	255	125
FBX36LL40-UNV-W-LFR	37436	32240	255	126
FBX36LL40-UNV-A	37437	37205	256	146
FBX36LL40-UNV-A-LCA	37438	35811	255	140
FBX36LL40-UNV-A-LFA	37439	32991	255	129
FBX36LL40-UNV-A-LCR	37440	31645	255	124
FBX36LL40-UNV-A-LFR	37441	31928	255	125
FBX45LL40-UNV	37307	45548	316	144
FBX45LL40-UNV-LCA	37308	43899	315	139
FBX45LL40-UNV-LFA	37309	41130	315	130
FBX45LL40-UNV-LCR	37310	39574	315	126
FBX45LL40-UNV-LFR	37311	39745	315	126
FBX45LL40-UNV-N	37312	43101	315	137
FBX45LL40-UNV-N-LCA	37313	44534	315	141
FBX45LL40-UNV-N-LFA	37314	42231	315	134
FBX45LL40-UNV-N-LCR	37315	43429	315	138
FBX45LL40-UNV-N-LFR	37316	41197	315	131
FBX45LL40-UNV-M	37324	46177	316	146
FBX45LL40-UNV-M-LCA	37325	44809	315	142
FBX45LL40-UNV-M-LFA	37326	42145	315	134
FBX45LL40-UNV-M-LCR	37327	42271	315	134
FBX45LL40-UNV-M-LFR	37328	40842	315	130
FBX45LL40-UNV-W	37329	45735	315	145
FBX45LL40-UNV-W-LCA	37330	44154	315	140
FBX45LL40-UNV-W-LFA	37331	41156	315	131
FBX45LL40-UNV-W-LCR	37332	39366	315	125
FBX45LL40-UNV-W-LFR	37333	39605	315	126
FBX45LL40-UNV-A	37334	45627	315	145
FBX45LL40-UNV-A-LCA	37335	43876	315	139
FBX45LL40-UNV-A-LFA	37336	40574	315	129
FBX45LL40-UNV-A-LCR	37337	38636	315	123
FBX45LL40-UNV-A-LFR	37338	39182	315	124

* Add 7% for 347V and 480V models

** "UNV" models

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