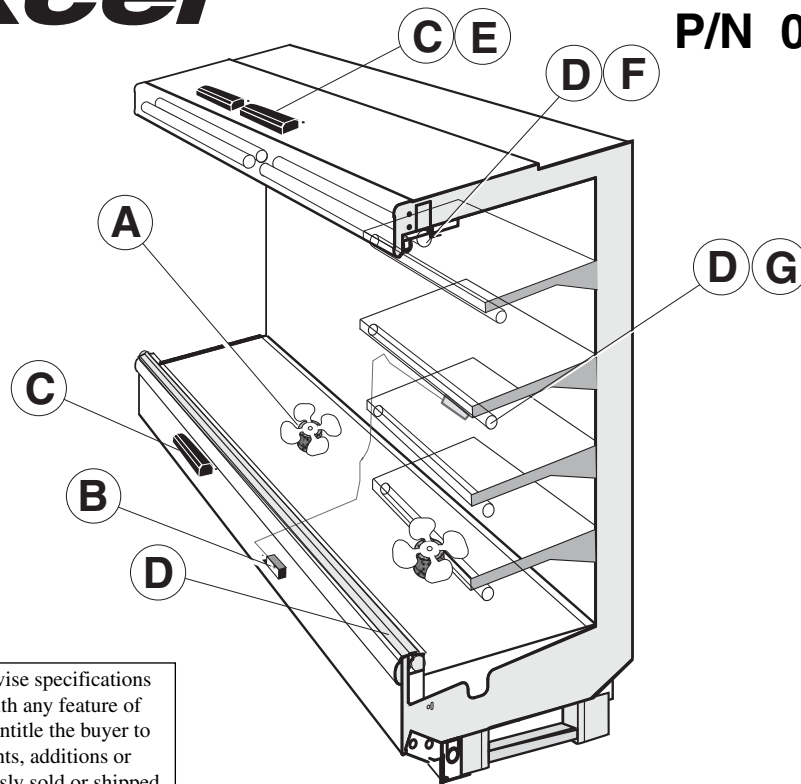


HUSSMANN® Excel

FL5NX-LEP

Technical Data Sheet
P/N 0474829_F

March 2010



We reserve the right to change or revise specifications and product design in connection with any feature of our products. Such changes do not entitle the buyer to corresponding changes, improvements, additions or replacements for equipment previously sold or shipped.

Item	Part #	Description	Wiring Item #	Item	Part #	Description	Wiring Item #
FAN ASSEMBLIES				THERMOSTATS			
4 Ft, 8 Ft, 10 Ft & 12 Ft				B. Optional Adjustable Refrigeration Thermostat (2)			
A.	12W Standard Fan Assembly		(1)	LAMPS AND BALLASTS			
	0047000	Fan Motor, Evaporator (MO.4410103)		C.	Ballast, Electronic		(3)
	0463643	Fan Blade (FB.4780648)			0480130	2 lamps (BA.4481676)	
					0480131	3 lamps (BA.4481654)	
					0480132	4 lamps (BA.4481677)	
	12W Energy Efficient Fan Assembly		(1)	D.	Fluorescent Lamp		(4)
	0477655	Fan Motor, Evaporator (MO.4410546)			<i>Replace with like fixtures</i>		
	0463643	Fan Blade (FB.4780648)		LED FIXTURES AND POWER SUPPLY			
6 Ft Only				E.	0501213	Power Supply (EP.4481861)	(5)
A.	7W Standard Fan Assembly		(1)	F.	LED Canopy Fixture		(6)
	0058698	Fan Motor, Evaporator (MO.4410102)			<i>Replace with like fixtures — See Page 5.</i>		
	0124150	Fan Blade (FB.0124150)		G.	LED Shelf Fixture		(7)
					<i>Replace with like fixtures — See Page 5.</i>		
	7W Energy Efficient Fan Assembly		(1)				
	0477654	Fan Motor, Evaporator (MO.4410545)					
	0124150	Fan Blade (FB.0124150))					

Note: Revision F updates EcoShine values on page 4, LED parts on page 5, and canopy wiring diagram on page 6.



Engineering Plan Views

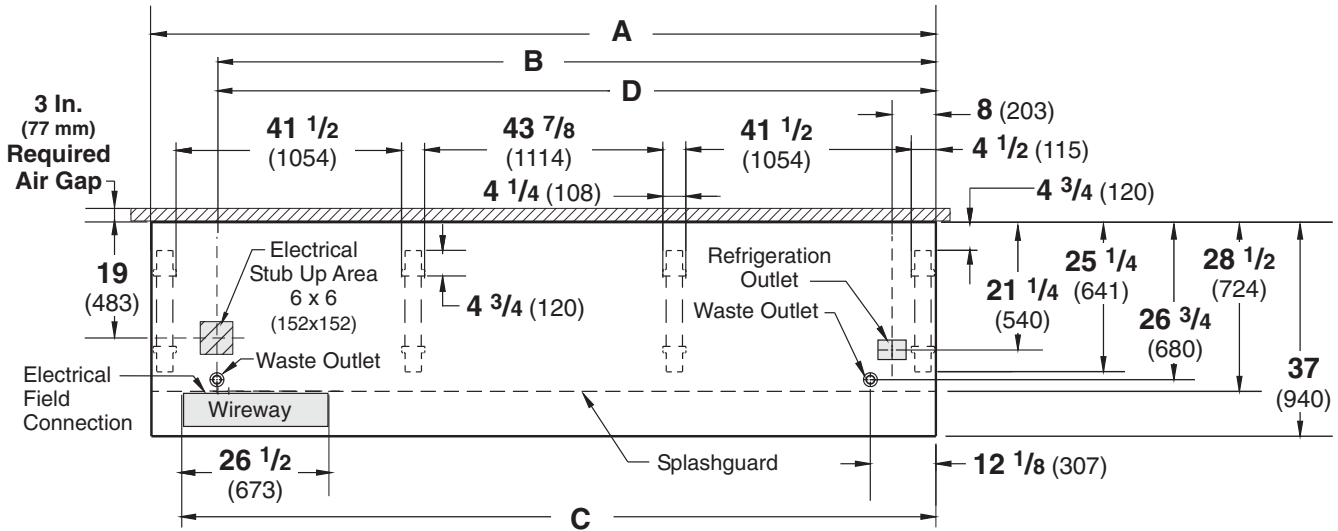
PHYSICAL DATA

Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	7/8

Floral

08-2006

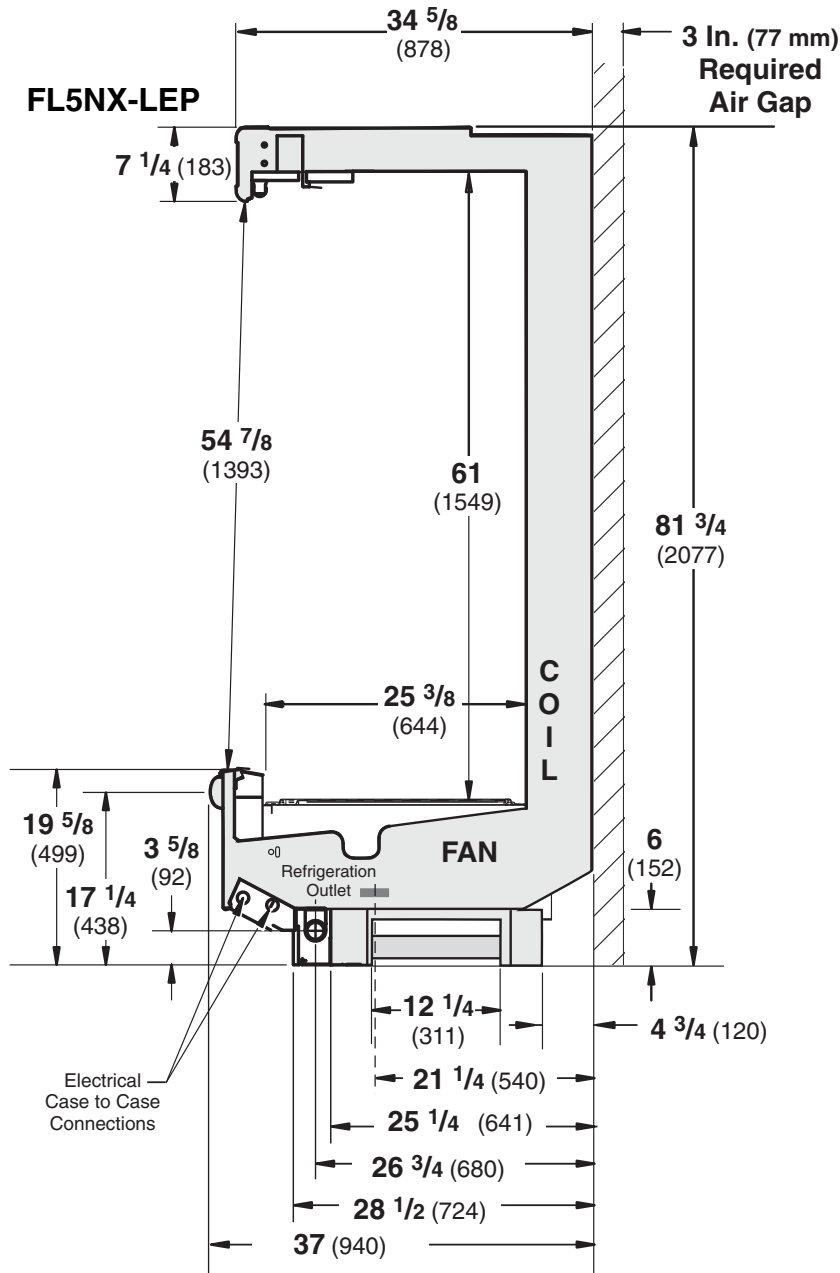
Dimensions shown as in. and (mm).



NOTE: Case-to-Case Electrical Connections are made IN FRONT OF SPLASHGUARD.

	4 ft	6 ft	8 ft	10 ft	12 ft
General					
(A) Case Length (<i>without ends or partitions</i>)	48 3/8 (1229)	72 3/8 (1838)	96 3/8 (2448)	120 3/8 (3058)	144 1/2 (3670)
<i>(Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)</i>					
Maximum O/S dimension of case back to front <i>(includes bumper)</i>	37 (940)	37 (940)	37 (940)	37 (940)	37 (940)
Back of case to front of splashguard	28 1/2 (724)	28 1/2 (724)	28 1/2 (724)	28 1/2 (724)	28 1/2 (724)
Back of case to O/S edge of front leg	25 1/4 (641)	25 1/4 (641)	25 1/4 (641)	25 1/4 (641)	25 1/4 (641)
Distance between edges of external legs and center legs	NA	29 1/2 (750)	41 1/2 (1054)	29 1/2 (750)	41 1/2 (1054)
Distance between edges of center legs	NA	NA	NA	43 7/8 (1114)	43 7/8 (1114)
Distance between front legs and splashguard	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)
Electrical Service (<i>Electrical Field Wiring connection point</i>)					
(B) RH End of case to center of stub up area	36 1/4 (921)	60 1/4 (1530)	84 1/4 (2140)	108 1/4 (2750)	132 3/8 (3363)
Back of case to center of stub up area	19 (483)	19 (483)	19 (483)	19 (483)	19 (483)
Length of electrical wireway	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)
(C) RH End of case to LH end of wireway	42 1/8 (1070)	66 1/8 (1680)	90 1/8 (2289)	114 1/4 (2092)	138 1/4 (3511)
Waste Outlets (<i>One each end</i>)					
(D) RH End of case to the center of LH waste outlet	36 1/4 (921)	60 1/4 (1530)	84 1/4 (2140)	108 1/4 (2750)	132 3/8 (3363)
RH End of case to the center of RH waste outlet	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)
Back O/S of case to center of waste outlets	26 3/4 (680)	26 3/4 (680)	26 3/4 (680)	26 3/4 (680)	26 3/4 (680)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
Refrigeration Outlet					
Back of case to center of refrigeration outlet	21 1/4 (540)	21 1/4 (540)	21 1/4 (540)	21 1/4 (540)	21 1/4 (540)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)	8 (203)	8 (203)	8 (203)

Dimensions shown as in. and (mm).



Impact *Excel* FL5NX-LEP
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REFRIGERATION DATA

Note: This data is based on store temperature and humidity that does not exceed 75°F and 55% R.H.

FL5NX-LEP	Unlit
Discharge Air (°F)	35
Evaporator (°F)	28
Unit Sizing (°F)	26

Btu/hr/ft[‡]

FL5NX-LEP	Parallel	Conventional
UNLIT ^{‡‡}	1350	1410

[‡]Optional energy efficient motors reduce the refrigeration load by 27 Btu/hr/ft.

^{‡‡} Add 10 Btu/hr/ft *per shelf row* for LED fixtures.
Add 20 Btu/hr/ft *per shelf row* for fluorescent lamps.

DEFROST DATA

FL5NX-LEP

Frequency Hrs	8
Defrost Water (lb/ft/day)	7.0
(± 15% based on case configuration and product loading).	

OFFTIME	FL5NX-LEP
Defrost	20

ELECTRIC OR GAS Not Recommended

CONVENTIONAL CONTROLS

Low Pressure Backup Control

CI/CO*	FL5NX-LEP
	21°F / 11°F

Indoor Unit Only, Pressure Defrost

Termination* 48°F

**Use a Temperature Pressure Chart to determine PSIG conversions.

Estimated Charge **	FL5NX-LEP
4 ft	1.9 lb 30 oz 0.9 kg
6 ft	2.8 lb 45 oz 1.3 kg
8 ft	3.7 lb 59 oz 1.7 kg
10 ft	4.7 lb 75 oz 2.1 kg
12 ft	5.1 lb 82 oz 2.3 kg

**This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound.

Impact *Excel* FL5NX-LEP

Floral

Electrical Data

	4 ft	6 ft	8 ft	10 ft	12 ft						
Number of Fans – 12V	1	—	2	3	3						
Number of Fans – 7W	—	2	—	—	—						
			Amperes				Watts				
	4 ft	6 ft	8 ft	10 ft	12 ft	4 ft	6 ft	8 ft	10 ft	12 ft	
Evaporator Fans											
120V 60Hz Standard	0.65	1.00	1.30	1.95	1.95	50	78	100	150	150	
120V 50Hz Standard	0.75	1.10	1.50	2.25	2.25	57	84	114	171	171	
230V 60Hz Export	0.33	0.50	0.66	0.99	0.99	50	78	100	150	150	
230V 50Hz Export	0.38	0.56	0.76	1.14	1.14	57	84	114	171	171	
120V 60Hz Energy Efficient	0.30	0.38	0.60	0.90	0.90	18	28	36	54	54	
230V 60Hz Energy Efficient	0.15	0.20	0.30	0.45	0.45	18	28	36	54	54	
Minimum Circuit Ampacity											
120V 60Hz Standard	0.85	1.20	1.50	2.15	2.15						
120V 50Hz Standard	0.95	1.30	1.70	2.45	2.45						
230V 60Hz Export	0.53	0.70	0.86	1.19	1.19						
230V 50Hz Export	0.58	0.76	0.96	1.34	1.34						
120V 60Hz Energy Efficient	0.50	0.58	0.80	1.10	1.10						
230V 60Hz Energy Efficient	0.35	0.40	0.50	0.65	0.65						
Maximum Over Current Protection 120V	20	20	20	20	20						
Maximum Over Current Protection 230V	15	15	15	15	15						
Standard Lighting (T-8 fluorescent)											
1 Row Canopy	0.26	0.51	0.51	0.77	0.77	30	59	59	85	85	
Optional Lighting (T-8 fluorescent)											
Additional 1 Row Canopy	0.26	0.51	0.51	0.77	0.77	30	59	59	85	85	
Additional 2 Row Canopy	0.51	1.02	1.02	1.54	1.54	59	118	118	170	170	
Additional 3 Row Canopy	0.77	1.53	1.53	2.31	2.31	89	177	177	255	255	
1 Row Rail Light	0.26	0.51	0.51	0.77	0.77	30	59	59	85	85	
HUSSMANN RECOMMENDS AGAINST FLUORESCENT SHELF LIGHTING IN FLORAL APPLICATIONS.											
EcoShine — Normal (CRI) — 120VAC, 50/60Hz											
2 Row Canopy (Front & Rear)	0.28	0.41	0.55	0.68	0.82	33	49	66	82	98	
1 Row of Shelves	0.10	0.15	0.20	0.24	0.29	12	18	24	29	35	
2 Rows of Shelves	0.20	0.29	0.39	0.48	0.58	24	35	47	58	70	
3 Rows of Shelves	0.29	0.44	0.58	0.73	0.88	35	53	70	87	105	
4 Rows of Shelves	0.39	0.58	0.78	0.97	1.17	47	70	93	116	140	
5 Rows of Shelves	0.48	0.73	0.97	1.21	1.45	58	87	116	145	174	
EcoShine — High CRI — 120VAC, 50/60Hz											
2 Row Canopy (Front & Rear)	0.32	0.47	0.63	0.78	0.93	38	56	75	93	112	
1 Row of Shelves	0.12	0.18	0.23	0.29	0.35	14	21	28	35	42	
2 Rows of Shelves	0.23	0.35	0.47	0.58	0.70	28	42	56	70	84	
3 Rows of Shelves	0.35	0.53	0.70	0.88	1.05	42	63	84	105	126	
4 Rows of Shelves	0.47	0.70	0.93	1.17	1.40	56	84	112	140	168	
5 Rows of Shelves	0.58	0.88	1.17	1.46	1.75	70	105	140	175	210	
Always*Bright — 120VAC, 50/60Hz											
2 Row Canopy (Front & Rear)	0.38	0.55	0.71	0.95	1.08	45	66	85	114	130	
1 Row of Shelves	0.15	0.19	0.23	0.30	0.38	18	23	28	36	45	
2 Rows of Shelves	0.26	0.34	0.47	0.60	0.67	31	41	56	72	80	
3 Rows of Shelves	0.38	0.53	0.74	0.90	1.11	45	63	89	108	133	
4 Rows of Shelves	0.47	0.68	0.93	1.15	1.40	56	82	112	138	168	

120V Lighting Circuit Total = Standard Lighting + Total Optional Lighting + Optional Shelf Lighting

230V Lighting Circuit Total = Multiply 120V Lighting Circuit Total by 0.52

Product Data

Recommended Usable Cube ¹ (Cu Ft/Ft)	9.23 ft ³ /ft (0.86 m ³ /m)
AHRI Total Display Area ² (Sq Ft/Ft)	4.77 ft ² /ft (1.45 m ² /m)
Shelf Area ³ (Sq Ft/Ft)	7.64 ft ² /ft (2.33 m ² /m)

- ¹ AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
² Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]
³ Shelf surface area is composed of bottom deck plus standard shelf complement, as shown in the Hussmann **Product Reference Guide**. The standard shelf complement for this model is (3) rows of 16-inch shelves.

ESTIMATED SHIPPING WEIGHT ⁴						
Case						Solid End
lb (kg)	<i>4 ft</i>	<i>6 ft</i>	<i>8 ft</i>	<i>10 ft</i>	<i>12 ft</i>	(each)
	700 (318)	900 (408)	1200 (544)	1400 (635)	1500 (680)	100 (45)

⁴ Actual weights will vary according to optional kits included.

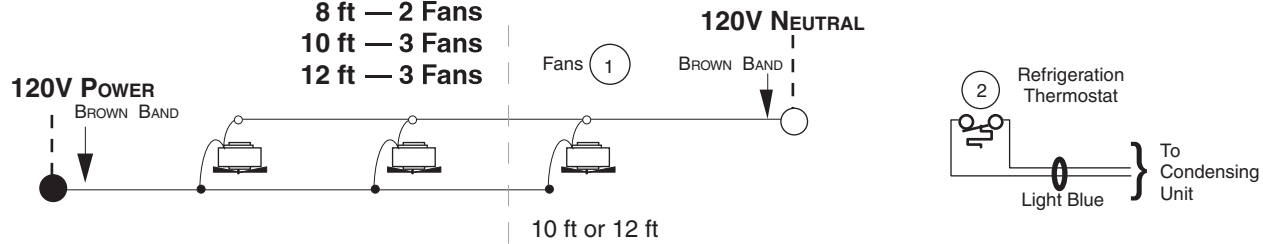
PARTS LIST (Continued from Page 1)							
Item	Part #	Description			Item	Part #	Description
LED FIXTURES AND POWER SUPPLY							
E.	0501213	Power Supply (EP.4481861)			(5)	F.	(CONTINUED) EcoShine LED Canopy Fixture
F.	EcoShine LED Canopy Fixture			(6)	4441713	Rear 36-inch	2900K HCRI
	4441720	Front 48-inch	2900K	HCRI	4441715	Rear 36-inch	3500K HCRI
	4441722	Front 48-inch	3500K	HCRI	4441717	Rear 36-inch	3500K
	4441724	Front 48-inch	3500K		4441719	Rear 36-inch	4100K
	4441726	Front 48-inch	4100K		G.	EcoShine LED Shelf Fixture (7)	
	4441721	Rear 48-inch	2900K	HCRI	4441590	48-inch	2900K HCRI
	4441723	Rear 48-inch	3500K	HCRI	4441591	48-inch	3500K HCRI
	4441725	Rear 48-inch	3500K		4441592	48-inch	3500K
	4441727	Rear 48-inch	4100K		4441593	48-inch	4100K
	4441712	Front 36-inch	2900K	HCRI	4441586	36-inch	2900K HCRI
	4441714	Front 36-inch	3500K	HCRI	4441587	36-inch	3500K HCRI
	4441716	Front 36-inch	3500K		4441588	36-inch	3500K
	4441718	Front 36-inch	4100K		4441589	36-inch	4100K

Note: Always*Bright lamps will be replaced with the latest generation of EcoShine lamps.

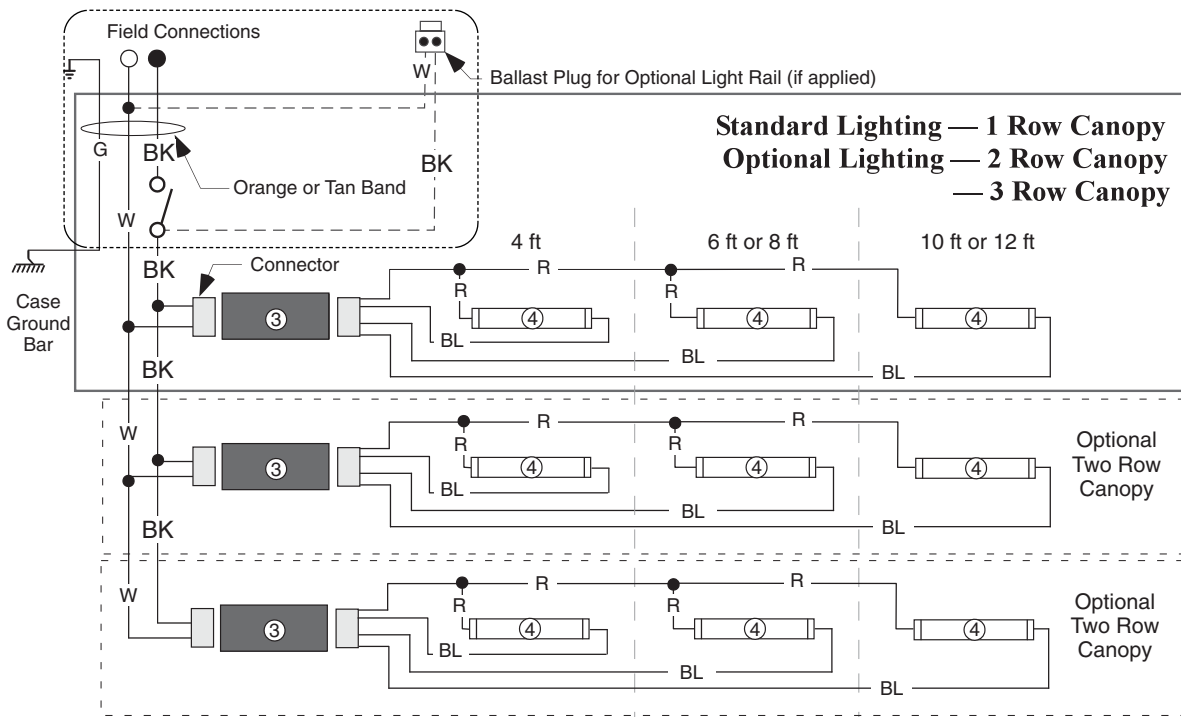
Fan Wiring Offtime Defrost

1, 2 & 3 Fans

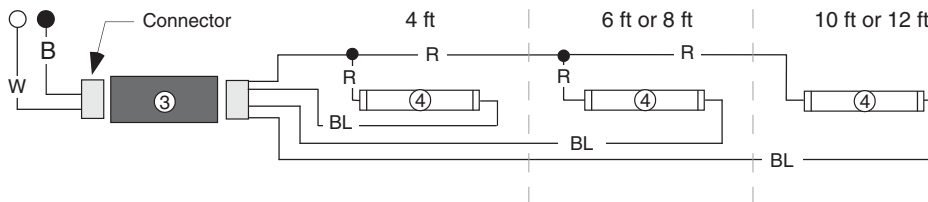
4 ft — 1 Fan
6 ft — 2 Fans
8 ft — 2 Fans
10 ft — 3 Fans
12 ft — 3 Fans



Canopy Light Circuits— Fluorescent Fixtures



Optional Lighting — 1 Row Rail



WARNING

All components must have mechanical ground, and the merchandiser must be grounded.

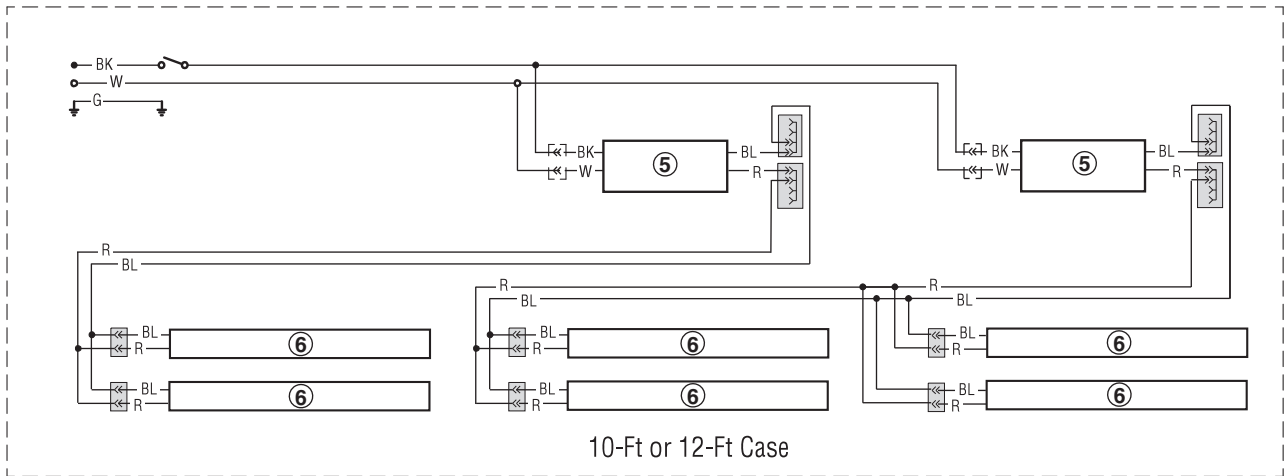
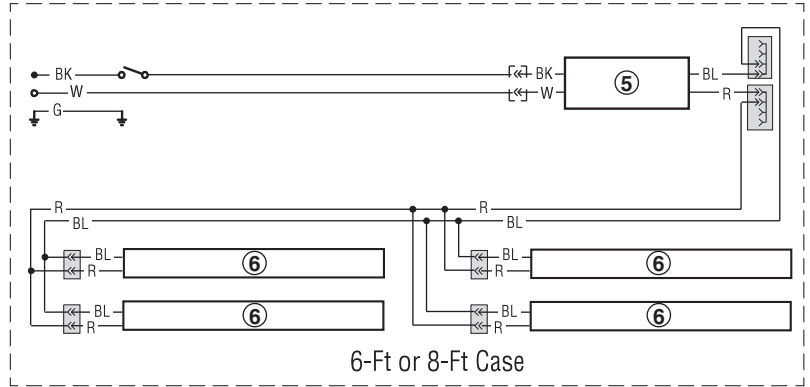
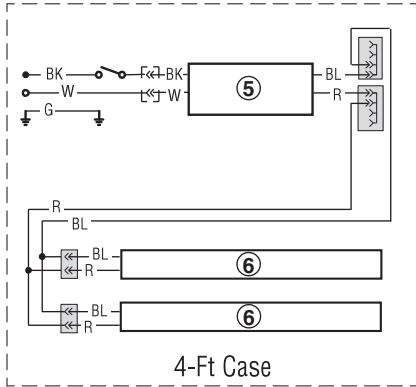
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

● = 120V POWER ○ = 120V NEUTRAL ⚡ = FIELD GROUND ⏏ = CASE GROUND

Optional Canopy Lighting LED Fixtures

Standard LED Canopy Lighting — 2 Row Canopy



WARNING

All components must have mechanical ground, and the merchandiser must be grounded.

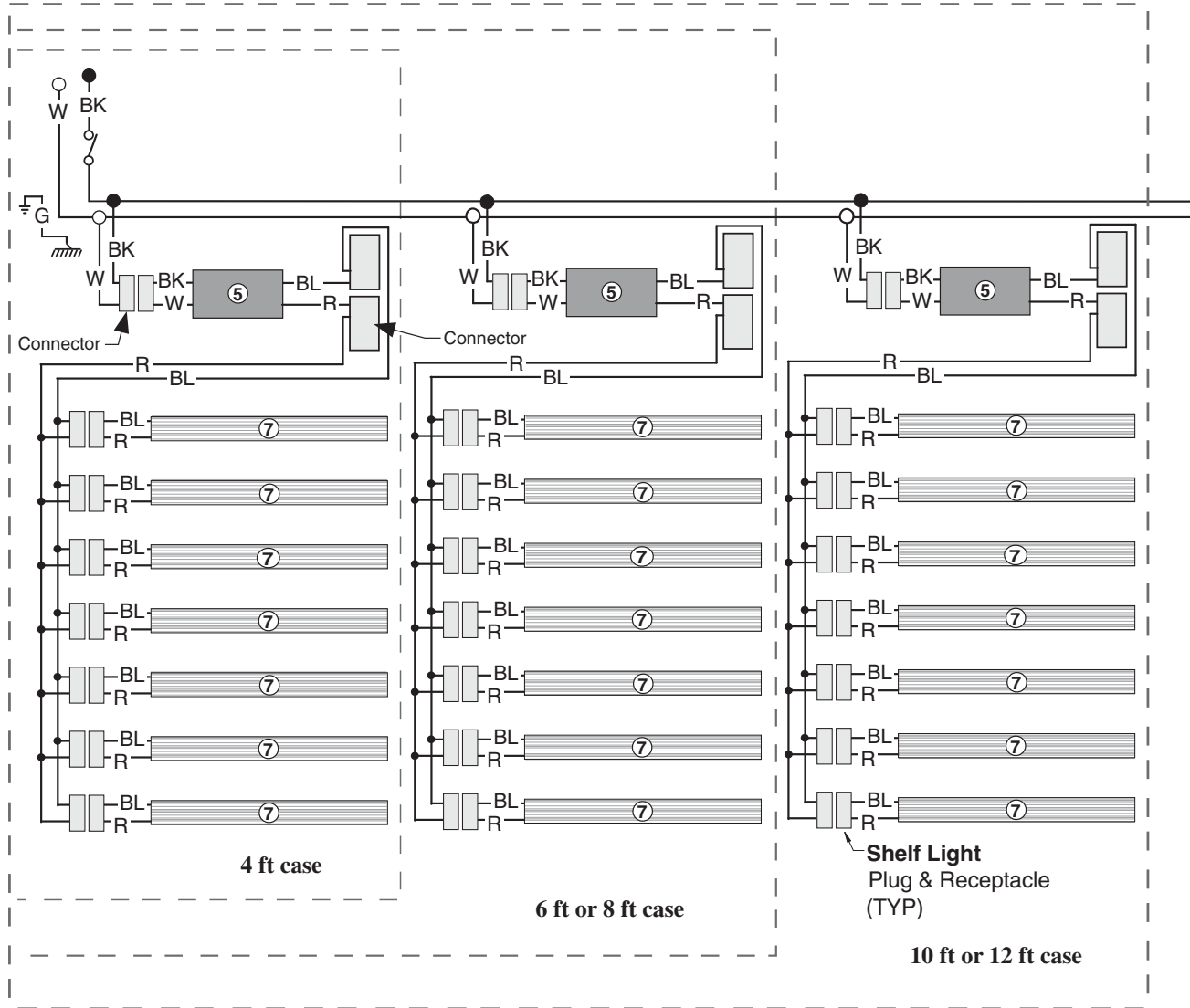
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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● = 120V POWER ○ = 120V NEUTRAL ⚡ = FIELD GROUND $\overline{\text{mm}}$ = CASE GROUND

Optional Shelf Lighting LED Fixtures

Optional Shelf Harness and LED Light Circuits for 3, 4, 5, 6 & 7 Rows of Shelves



WARNING

All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red G = Green BL = Blue BK = Black

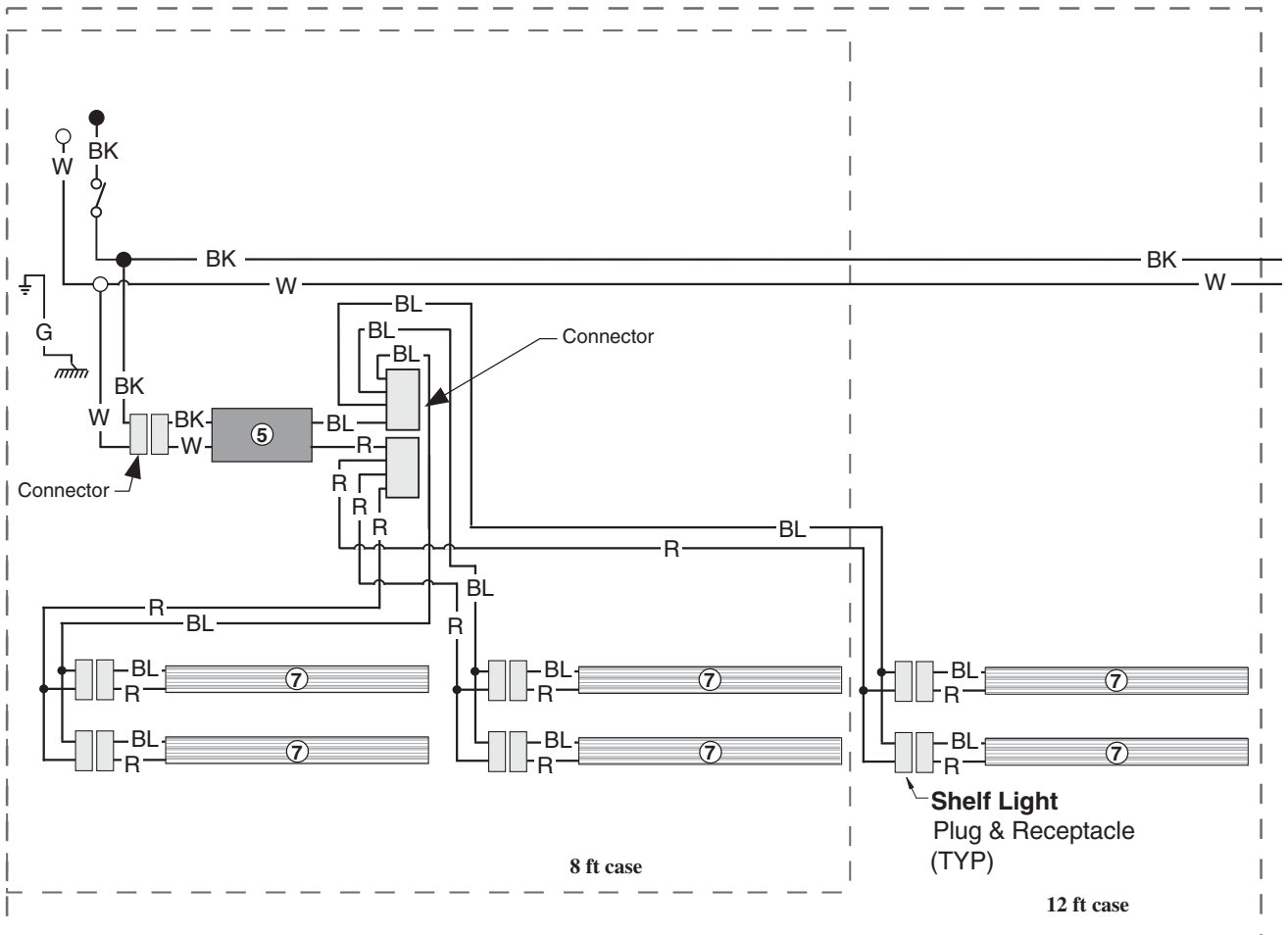
W = White

● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND

⏏ = CASE GROUND

Optional Shelf Lighting LED Fixtures

Optional Shelf Harness and LED Light Circuits for Two Rows of Shelves



WARNING

All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red G = Green BL = Blue BK = Black W = White

● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND $\overline{\text{mm}}$ = CASE GROUND