

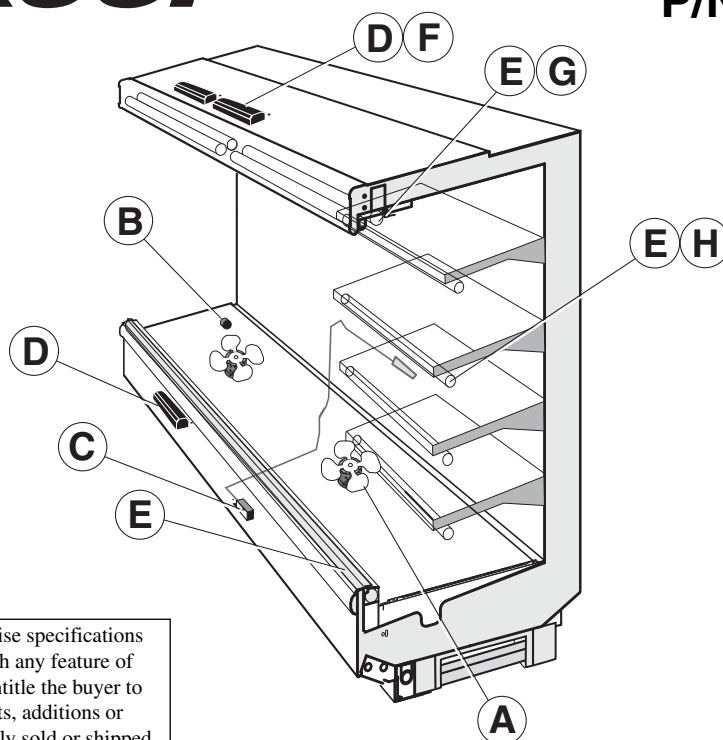
HUSSMANN[®] Excel



C5X-LE
Technical Data Sheet
P/N 0473382_H

NSF[®] Certified

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. 0411744 Standard Non-adjustable Defrost Thermostat (CT.0411744) (2)			
A.	25W Standard	Fan Assembly	(1)	C. Optional Adjustable Refrigeration Thermostat (3)			
	0501486	Fan Motor, Evaporator (MO.4410702)		LAMPS AND BALLASTS			
	0501484	Fan Blade (FB.4780657)		D.	Ballast, Electronic		(4)
	25W Energy Efficient	Fan Assembly	(1)		0480130	2 lamps (BA.4481676)	
	0501485	Fan Motor, Evaporator (MO.4410701)			0480131	3 lamps (BA.4481654)	
	0501484	Fan Blade (FB.4780657)		E.	Fluorescent Lamp		(5)
6 Ft and 10 Ft† Only						Replace with like fixtures	
A.	7W Standard	Fan Assembly	(1)	LED FIXTURES AND POWER SUPPLY			
	0058698	Fan Motor, Evaporator (MO.4410102)		F	0501213	Power Supply (EP.4481861)	(6)
	0142780	Fan Blade (FB.0142780)		G.		LED Canopy Fixture	(7)
	7W Energy Efficient	Fan Assembly	(1)			Replace with like fixtures — See Page 5.	
	0477654	Fan Motor, Evaporator (MO.4410545)		H.		LED Shelf Fixture	(8)
	0142780	Fan Blade (FB.0142780)				Replace with like fixtures — See Page 5.	

†10 Ft uses both.

Note: Revision F adds Btu note (page 3), EcoShine LED (page 4) and parts (page 5), and revises canopy wiring diagram (page 6). Other changes marked by bar, underline or circle.



Engineering Plan Views

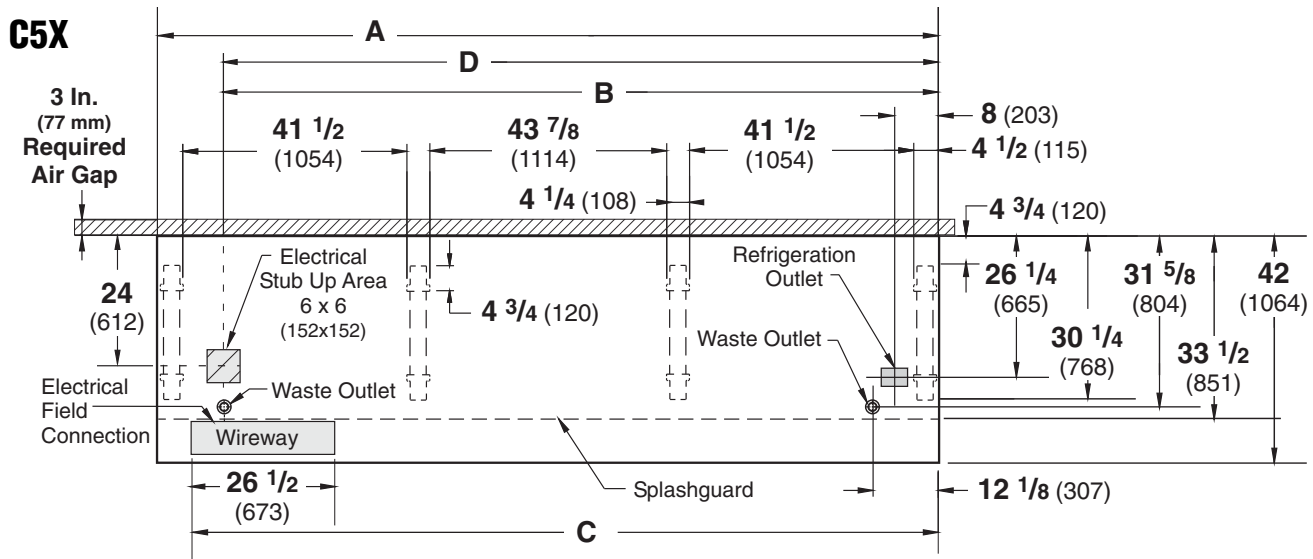
PHYSICAL DATA

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

Convertible

09-2005

Dimensions shown as in. and (mm).



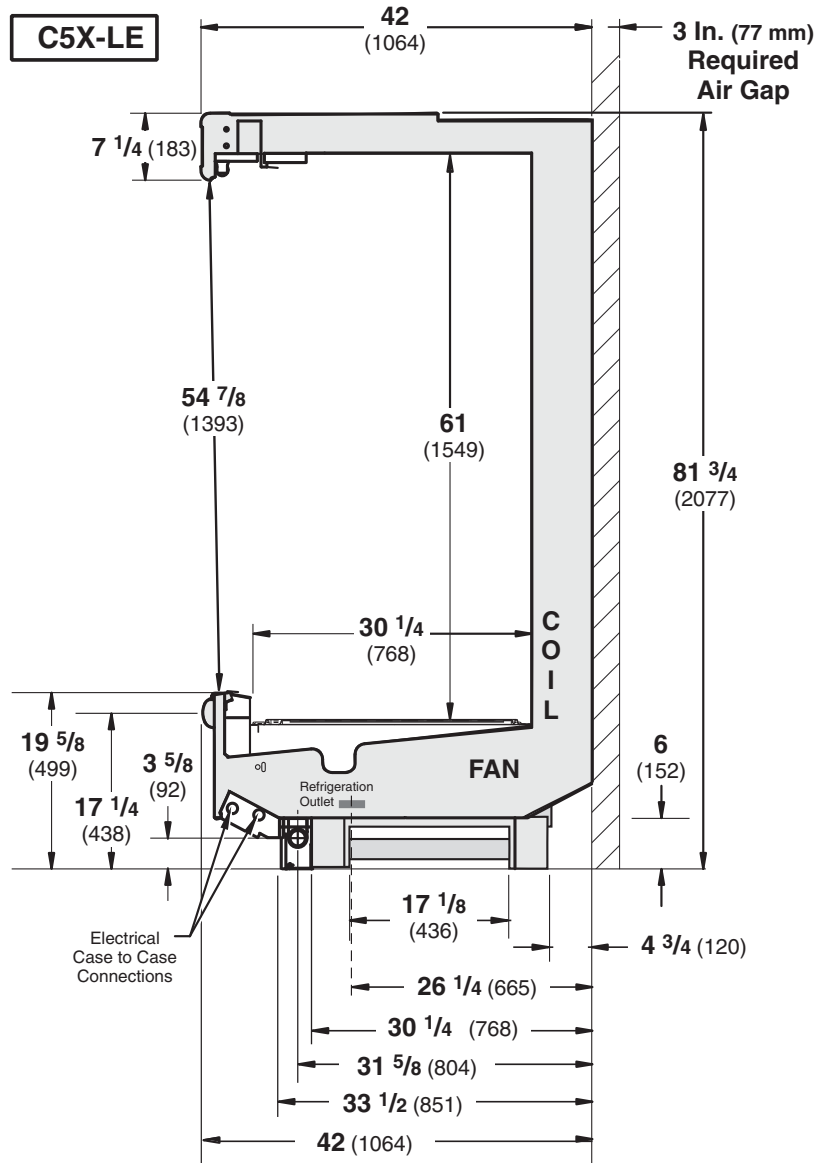
NOTE: Case-to-Case Electrical Connections are made IN FRONT OF SPLASHGUARD.

FRONT

	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>	42 (1064)	42 (1064)	42 (1064)	42 (1064)	42 (1064)
Back of case to front of splashguard	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)
Back of case to O/S edge of front leg	30 1/4 (768)	30 1/4 (768)	30 1/4 (768)	30 1/4 (768)	30 1/4 (768)
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	24 (612)	24 (612)	24 (612)	24 (612)	24 (612)
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	31 5/8 (804)	31 5/8 (804)	31 5/8 (804)	31 5/8 (804)	31 5/8 (804)
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	26 1/4 (665)	26 1/4 (665)	26 1/4 (665)	26 1/4 (665)	26 1/4 (665)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)	8 (203)	8 (203)	8 (203)

Multi-deck, 5 Display Levels, Low Front

Dimensions shown as in. and (mm).



NSF Certification

This merchandiser model is manufactured to meet ANSI/NSF (National Sanitation Foundation) Standard #7 requirements for construction, materials & cleanability.

Impact Excel C5X-LE
All

REFRIGERATION DATA

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

C5X-LE	Meat	Produce	Dairy
Discharge Air (°F)	29	31	31
Evaporator (°F)	21	24	24
Unit Sizing (°F)	19	22	22

Btu/hr/ft[‡] — Unlit Shelves^{‡‡}

C5X-LE	Parallel	Conventional
MEAT	1715	1820
PRODUCE	1650	1750
DAIRY	1590	1690

[‡] Optional energy efficient motors reduce the refrigeration load by 46 Btu/hr/ft (4 ft, 8 ft and 12 ft models), 18 Btu/hr/ft (6 ft models) and 18 Btu/hr/ft (10 ft models).

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

DEFROST DATA

	C5X-LE
Frequency Hr	6
Defrost Water (lb/ft/day)	10.5
(± 15% based on case configuration and product loading).	
OFFTIME	C5X-LE
Temp Term °F	48
Failsafe Minutes	30

ELECTRIC OR GAS Not Recommended

Standard Defrost Thermostat

Close on rise: close 48°F — open 33°F

CONVENTIONAL CONTROLS

Low Pressure Backup Control

CI/CO*	C5X-LE		
	Meat	Produce	Dairy
	14°F / 4°F	17°F / 7°F	17°F / 7°F

Indoor Unit Only, Pressure Defrost

Termination* 48°F

*Use a Temperature Pressure Chart to determine PSIG conversions.

Estimated Charge **

	C5X-LE		
4 ft	1.6 lb	26 oz	0.7 kg
6 ft	2.2 lb	35 oz	1.0 kg
8 ft	3.1 lb	50 oz	1.4 kg
10 ft	3.8 lb	61 oz	1.7 kg
12 ft	4.5 lb	72 oz	2.0 kg

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

Impact *Excel* C5X-LE

Electrical Data

			4 ft	6 ft	8 ft	10 ft	12 ft					
Number of Fans—25W			1	—	2	1	3					
Number of Fans—7W			—	4	—	4	—					
			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	1.23	2.00	2.46	3.23	3.69	90	156	180	246	270
120V	50Hz	Standard	1.33	2.20	2.66	3.53	3.99	103	168	206	271	309
230V	60Hz	Export	0.66	1.00	1.32	1.66	1.98	100	156	200	256	300
230V	50Hz	Export	0.76	1.12	1.52	1.88	2.28	114	168	228	282	342
120V	60Hz	Energy Efficient	0.60	0.76	1.20	1.36	1.80	36	56	72	92	108
230V	60Hz	Energy Efficient	0.30	0.40	0.60	0.70	0.90	36	56	72	92	108
Minimum Circuit Ampacity												
120V	60Hz	Standard	1.43	2.20	2.66	3.43	3.89					
120V	50Hz	Standard	1.53	2.40	2.86	3.73	4.19					
230V	60Hz	Export	0.86	1.20	1.52	1.86	2.18					
230V	50Hz	Export	0.96	1.32	1.72	2.08	2.48					
120V	60Hz	Energy Efficient	0.80	0.96	1.40	1.56	2.00					
230V	60Hz	Energy Efficient	0.50	0.60	0.80	1.30	1.10					
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
1 Row Rail Light			0.26	0.51	0.51	0.77	0.77	30	59	59	85	85
1 Row of Shelves			0.26	0.51	0.51	0.77	0.77	30	59	59	85	85
4 Rows of Shelves			1.02	2.04	2.04	3.08	3.08	118	236	236	340	340
5 Rows of Shelves			1.28	2.55	2.55	3.85	3.85	148	295	295	425	425
6 Rows of Shelves			1.53	3.06	3.06	4.62	4.62	177	354	354	510	510
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
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
6 Rows of Shelves			0.58	0.88	1.17	1.45	1.74	70	105	140	174	209
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
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
6 Rows of Shelves			0.70	1.05	1.40	1.75	2.10	84	126	168	210	252
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
4 Rows of Shelves			0.47	0.68	0.93	1.15	1.40	56	82	112	138	168
5 Rows of Shelves			0.57	0.83	1.13	1.38	1.69	68	99	136	166	203
6 Rows of Shelves			0.67	0.96	1.33	1.62	2.00	80	115	160	194	240

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

<i>Recommended Usable Cube</i> ¹ (Cu Ft/Ft)	9.39 ft ³ /ft (0.87 m ³ /m)
<i>AHRI Total Display Area</i> ² (Sq Ft/Ft)	4.74 ft ² /ft (1.44 m ² /m)
<i>Shelf Area</i> ³ (Sq Ft/Ft)	9.88 ft ² /ft (3.01 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 (4) rows of 22-inch shelves.

ESTIMATED SHIPPING WEIGHT ⁵						
Case						Solid End
	4 ft	6 ft	8 ft	10 ft	12 ft	(each)
lb (kg)	800 (363)	1000 (454)	1200 (544)	1300 (590)	1400 (635)	100 (45)

⁵ Actual weights will vary according to optional kits included.

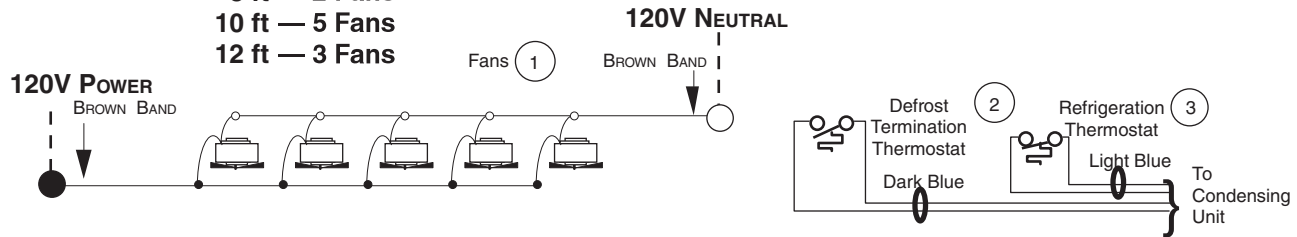
PARTS LIST (Continued from Page 1)							
Item	Part #	Description			Item	Part #	Description
LED FIXTURES AND POWER SUPPLY							
F.	0501213	Power Supply (EP.4481861)			(6)	G. (CONTINUED) EcoShine LED Canopy Fixture	
G.	EcoShine LED Canopy Fixture			(7)	4441713	Rear 36-inch	2900K HCRI
	4441720	Front 48-inch	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		H. EcoShine LED Shelf Fixture		(8)
	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.

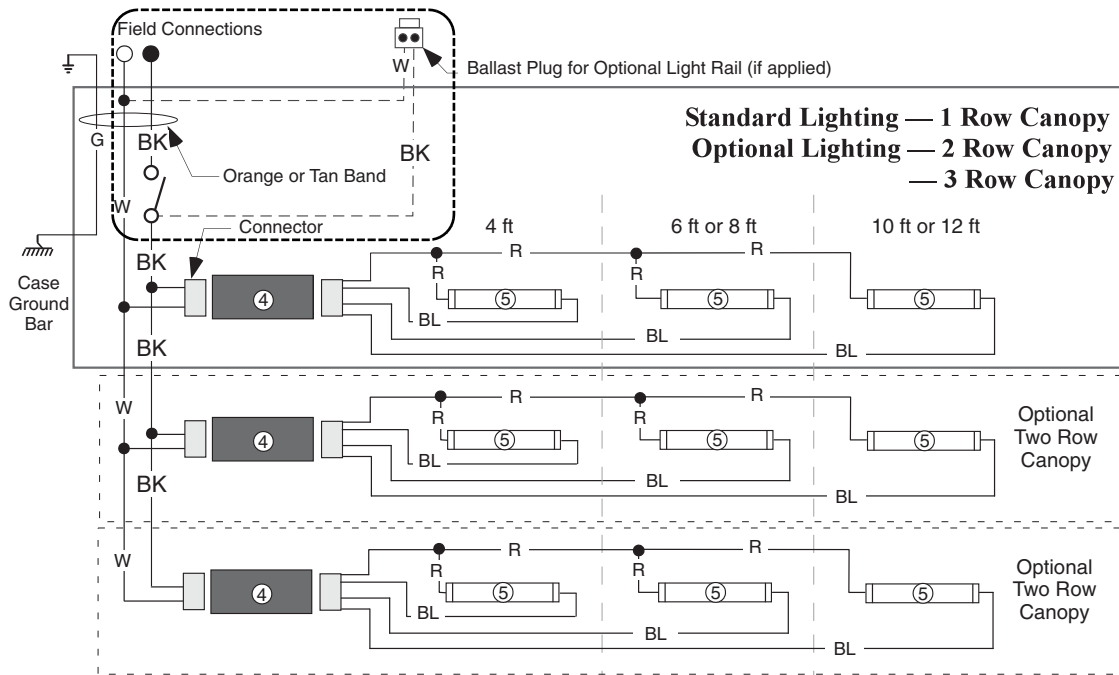
Fan Wiring Offtime Defrost

1, 2, 3, 4 & 5 Fans

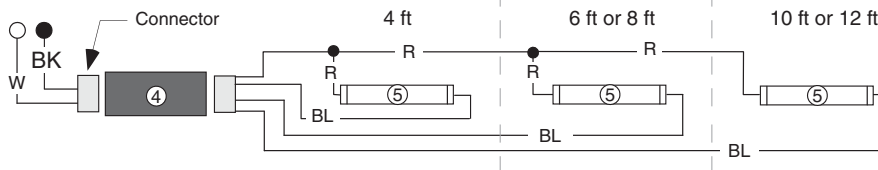
- 4 ft — 1 Fan
- 6 ft — 4 Fans
- 8 ft — 2 Fans
- 10 ft — 5 Fans
- 12 ft — 3 Fans



Canopy Light Circuits — Fluorescent Fixtures



Optional Lighting — 1 Row Rail



WARNING

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

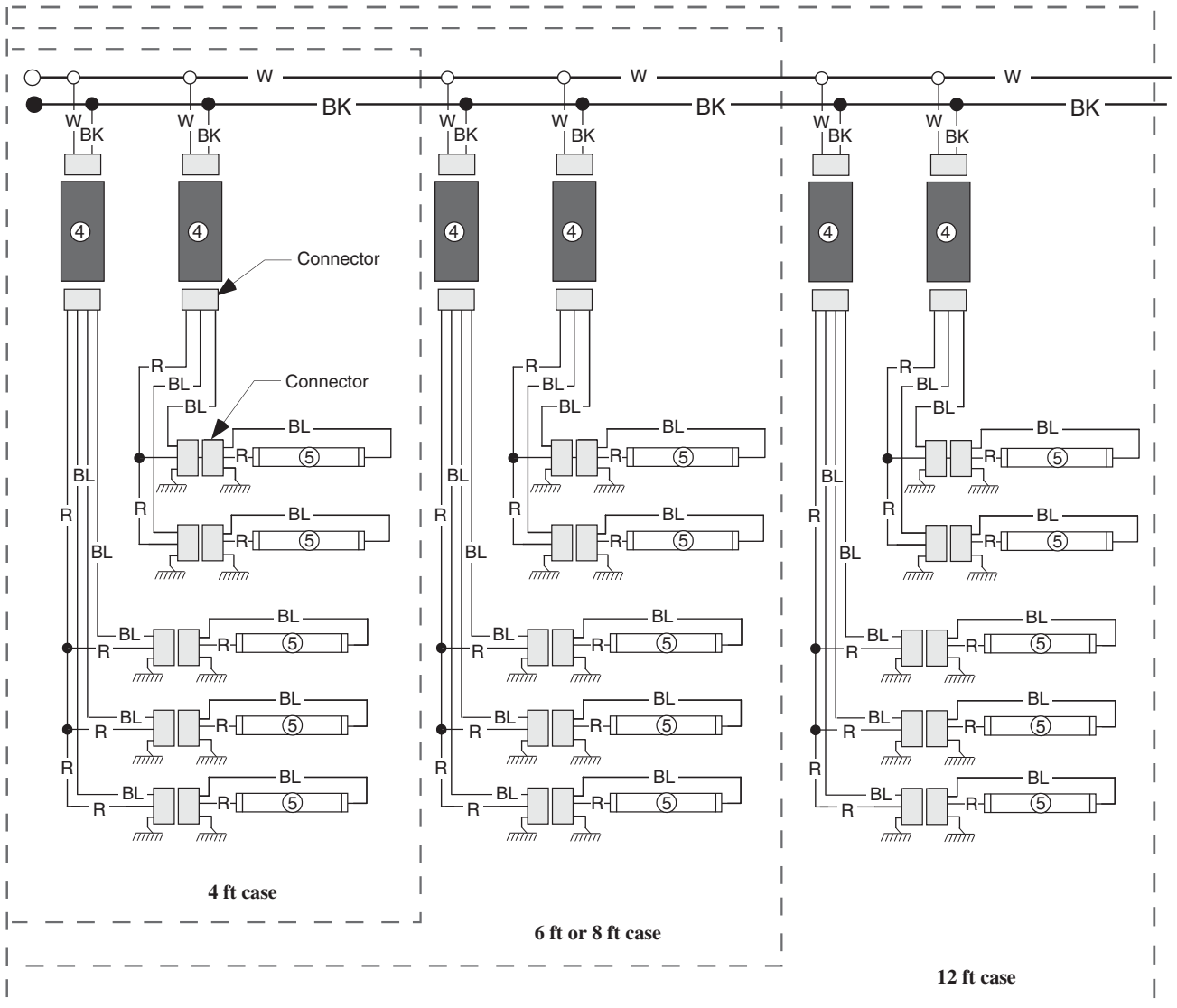
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

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

Optional Shelf Lighting Fluorescent Fixtures

Optional Shelf Harness and Light Circuits for Five Rows of Shelves



WARNING

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

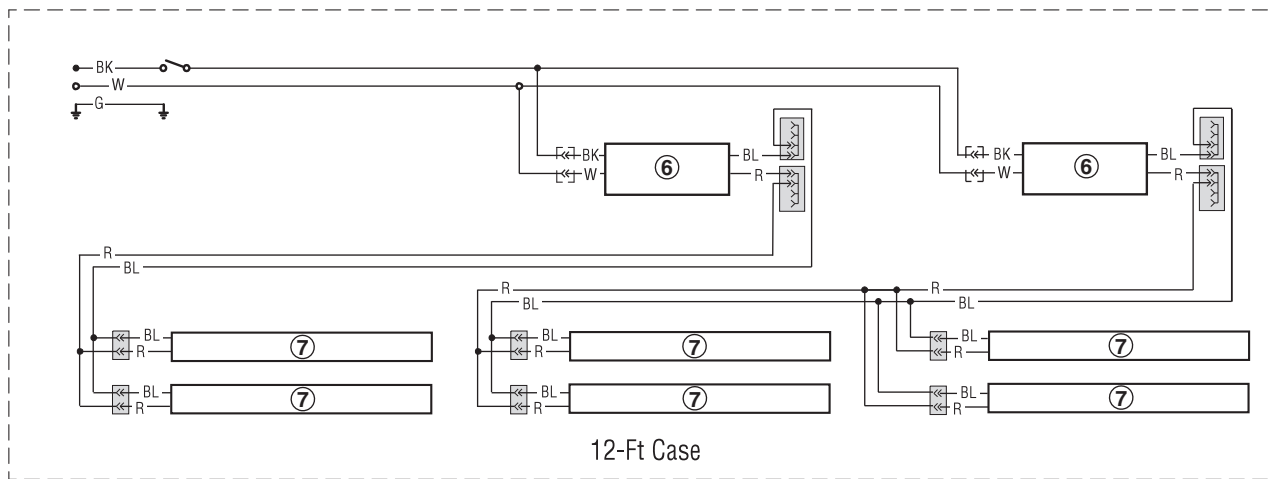
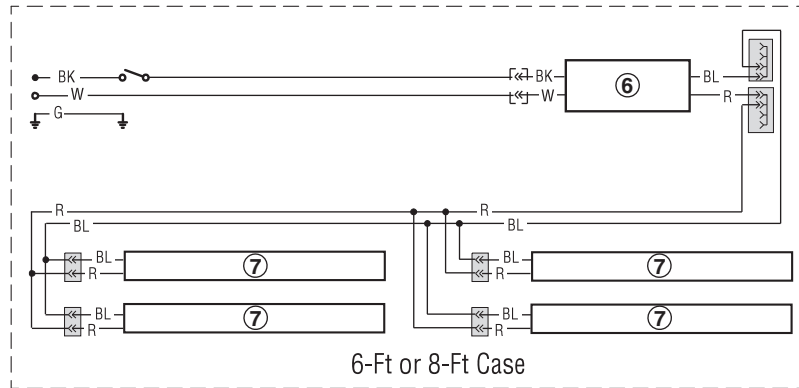
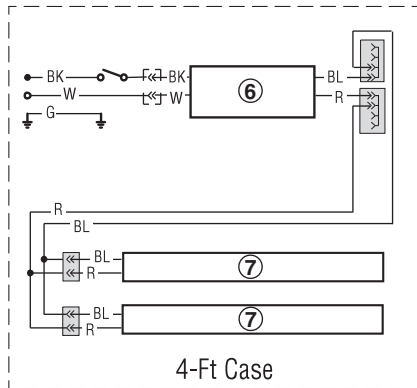
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Optional Canopy Lighting LED Fixtures

Standard LED Canopy Lighting — 2 Row Canopy



WARNING

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

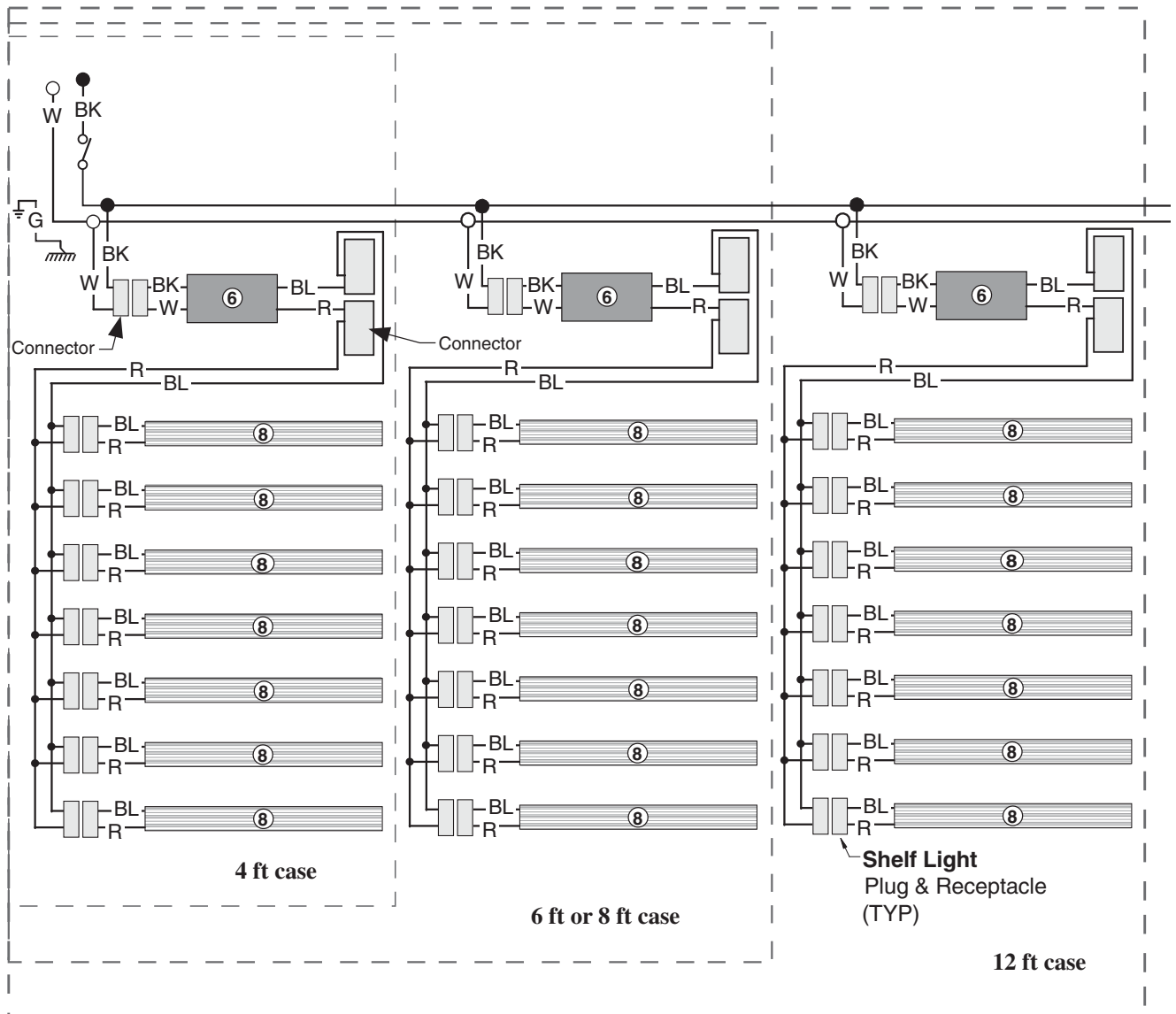
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Optional Shelf Lighting LED Fixtures

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