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Item	Part #	Description	Wiring Item #	Item	Part #	Description	Wiring Item #
FAN ASSEMBLIES, AND THERMOSTATS				ELECTRIC DEFROST HEATERS (CONTINUED)			
A.	12W Standard Energy Efficient Fan Assembly			K.	Defrost Heater		(10)
	0463515	Fan Motor, Evaporator (MO.4962438)	(1)		0508892	4 ft (HE.4851042)	
	0142780	Fan Blade (FB.0142780) embossing toward motor			0508893	6 ft (HE.4851241)	
					0508894	8 ft (HE.4483177)	
					0508895	12 ft (HE.4483178)	
B.	0404552	Fan Motor – Muffin, Ambient 120V, 15W, CW (MO.4410590)	(2)	ANTI-SWEAT HEATERS			
C.	0440420	Fan Motor, Reversing Non-Refrigerated (Electric Defrost) 120V, 9W, CW (MO.4410302)	(3)	L.	Return Air Heater		(11)
	0141070	Fan Blade (FB.0141070) embossing toward motor			0416115	4 ft, (HE.4483179)	
	0058698	Fan Motor, Non-Refrigerated (Gas Defrost) 120V, 7W, CW (MO.4410102)	(3)		0416116	6 ft, (HE.4850564)	
	0141070	Fan Blade (FB.0141070) embossing toward motor			0416117	8 ft, (HE.4850565)	
					0416118	12 ft, (HE.4850566)	
D.	0474130	Standard Non-Adjustable Bi-metal Electric Defrost Thermostat (CT.4440737)	(4)	M.	Main Anti-Sweat Heater (Honeycomb Divider)		(12)
	0358566	Optional Non-Adjustable Bi-metal Gas Defrost Thermostat (CT.0358566)			0494994	4 ft (HE.4850776)	
					0494995	6 ft (HE.4850777)	
					0494996	8 ft (HE.4850778)	
					0494997	12 ft (HE.4850739)	
E.	Optional Adjustable Refrigeration Thermostat		(5)	N.	Optional Front Rail Heater		(13)
					0495002	4 ft (HE.4850779)	
					0495003	6 ft (HE.4850780)	
					0495004	8 ft (HE.4850781)	
					0495005	12 ft (HE.4850782)	
ELECTRIC DEFROST HEATERS				LAMPS AND BALLASTS			
F.	0123592	Relay, DPDT 208V coil (RL.4440495)	(6)	P.	Ballast, Electronic		(14)
G.	0438616	Transformer (TR.4481266)	(7)		0466607	1 lamp (BA.4483175)	
H.	0442232	Heater Limit Thermostat (CT.4481090)	(8)		0466608	2 lamps (BA.4481686)	
J.	Defrost Heater		(9)		0466609	3 lamps (BA.4481687)	
	0495024	4, 8 & 12 ft (HE.4483176)		Q.	Fluorescent Lamp		(15)
	0442038	6 ft (HE.4481266)					
							<i>Replace with like fixtures</i>

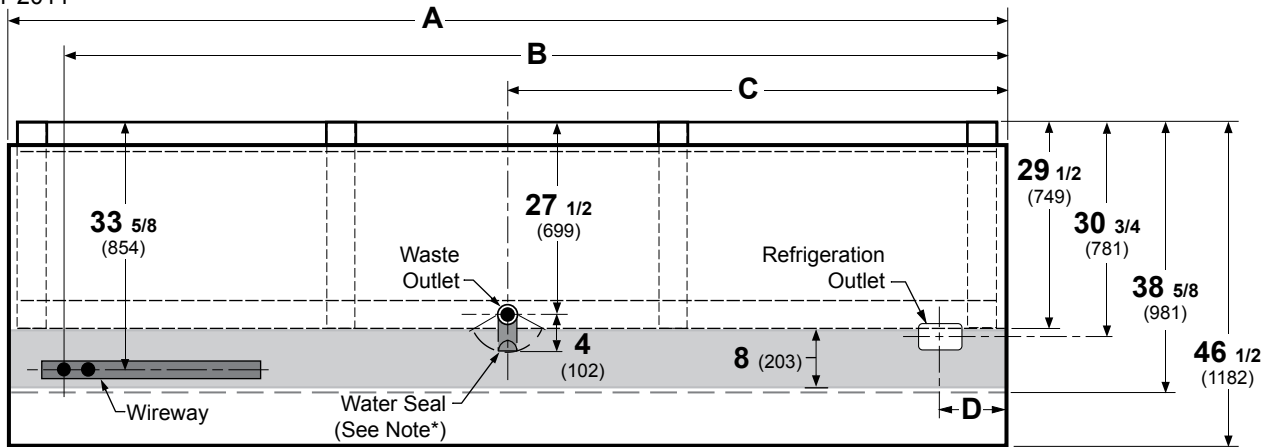
Note: Revision C updated cross section and plan view. Changes are underlined, circled or marked with a vertical line in the margin.

Engineering Plan Views





PHYSICAL DATA	
Merchandiser Drip Pipe (in.)	1 1/2
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	1 1/8

F6 / F6L
Frozen
11-2011

Dimensions shown as inches & (mm).

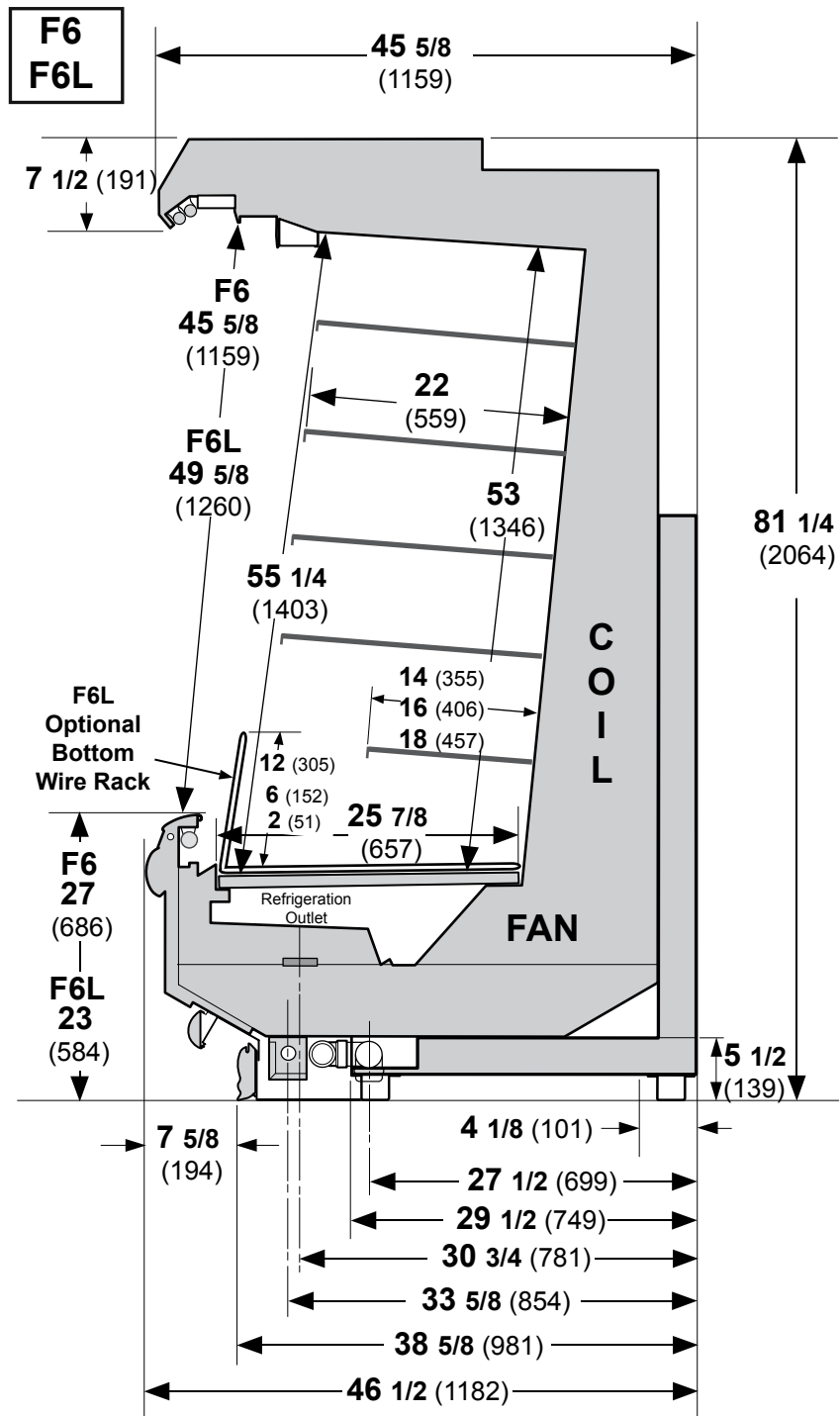


Front

	4 ft	6 ft	8 ft	12 ft
General				
(A) Case Length (<i>without ends or partitions</i>)	48 1/4 (1226)	72 1/4 (1835)	96 3/8 (2448)	144 1/2 (3670)
<i>NOTE: Each end or insulated partition adds 1 1/2 inch to lineup.</i>				
Maximum O/S dimension back to front (<i>with bumper</i>)	46 1/2 (1182)	46 1/2 (1182)	46 1/2 (1182)	46 1/2 (1182)
Back of case to front of splashguard	38 5/8 (981)	38 5/8 (981)	38 5/8 (981)	38 5/8 (981)
Width of skid rail	4 1/8 (105)	4 1/8 (105)	4 1/8 (105)	4 1/8 (105)
RH end of case to outside edge of external support	1 3/8 (35)	1 3/8 (35)	1 3/8 (35)	1 3/8 (35)
Distance between inside edges of external support and center support	NA	28 1/2 (724)	40 1/2 (1029)	40 1/2 (1029)
Distance between inside edges of center supports	NA	NA	NA	43 7/8 (1114)
Distance between inside edges of external supports	37 (940)	NA	NA	NA
Stub-up area between front skid rail and splashguard	8 (203)	8 (203)	8 (203)	8 (203)
Electrical Service  (<i>Electrical Field Wiring connection point</i>)				
(B) RH End of case to center of farthest knockout	40 1/4 (1022)	64 1/4 (1632)	88 3/8 (2245)	138 7/8 (3527)
Back of case to center of end knockout	35 3/8 (899)	35 3/8 (899)	35 3/8 (899)	35 3/8 (899)
Length of electrical wireway	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)
Waste Outlet 				
(C) RH End of case to the center of waste outlet	24 1/8 (613)	48 1/8 (1222)	72 1/4 (1835)	72 1/4 (1835)
Back O/S of case to center of waste outlet	27 1/2 (699)	27 1/2 (699)	27 1/2 (699)	27 1/2 (699)
Water Seal 				
Edge of water seal to center of waste outlet	4 (102)	4 (102)	4 (102)	4 (102)
Schedule 40 diameter drip pipe	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)
<i>(Field installed water seal outlets, tees, and connectors are shipped with the merchandiser.)</i>				
Refrigeration Outlet 				
Back of case to center of refrigeration outlet	30 5/8 (778)	30 5/8 (778)	30 5/8 (778)	30 5/8 (778)
(D) RH end of case to center of refrigeration outlet	9 (229)	9 (229)	9 (229)	9 (229)

Excel EXPORT F6/F6L
Multi-Deck Frozen Food

Dimensions are shown as inches & (mm).



REFRIGERATION DATA

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

	F6/ F6L	F6*/ F6L*
Discharge Air (°F)	-8	-3
Evaporator (°F)	-16	-9
Unit Sizing (°F)	-19	-12

Btu/hr/ft	F6	F6*	F6L	F6L*
Parallel	1490	1410	1700	1605
Conventional	1570	1485	1795	1695

* = Non-0 Return Code

DEFROST DATA

	F6	F6L
Frequency (hr)	12	8
Defrost Water (lb/ft/day)	8.2	8.6

(± 15% based on case configuration and product loading).

ELECTRIC REVERSE AIR DEFROST

Temp Term (°F)	60°
Failsafe (minutes)	30

GAS DEFROST

Temp Term (°F)	NA
Failsafe (minutes)	22

OFFTIME NA

CONVENTIONAL CONTROLS

Low Pressure Backup Control	F6/F6L
CI/CO (Temp °F)**	-20°/-39°

Indoor Unit Only, Pressure Defrost Termination (Temp °F)** 48°

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

Estimated Charge ***	F6/F6L		
4 ft	1.8 lb	29 oz	0.8 kg
6 ft	2.5 lb	40 oz	1.1 kg
8 ft	3.5 lb	56 oz	1.6 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 0.5 lb (8 oz / 0.2 kg).

NSF Certification

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

Excel EXPORT F6/F6L Multi-Deck Frozen Food

Electrical Data

Number of Fans			4 ft	6 ft	8 ft	12 ft				
Main Evaporator			2	4	4	6				
Ambient			1	2	2	3				
Non-Refrigerated			1	2	2	3				
			Amperes				Watts			
			4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
Main Evaporator Fans (12W)										
230V	60Hz	Standard	0.66	1.32	1.32	1.98	100	200	200	300
230V	50Hz	Standard	0.76	1.52	1.52	2.28	114	228	228	342
Ambient Fans (15W)										
230V	60Hz	Standard	0.13	0.26	0.26	0.39	22	44	44	66
230V	50Hz	Standard	0.15	0.30	0.30	0.45	25	50	50	75
Non-Refrigerated Fan (9W, Reversing) – Standard Electric Defrost Only †										
120V	60Hz	Standard	0.24	0.48	0.48	0.72	25	50	50	75
120V	50Hz	Standard	0.27	0.54	0.54	0.81	28	56	56	84
Non-Refrigerated Fans (7W) – Optional Gas Defrost Only †										
120V	60Hz	Standard	0.50	1.00	1.00	1.50	39	78	78	117
120V	50Hz	Standard	0.55	1.10	1.10	1.65	42	84	84	126
Anti-Sweat Heaters – Constant On										
Main Divider Anti-sweat Heaters			0.41	0.61	0.82	1.23	90	135	180	270
Return Grille Air Heaters			0.44	0.65	0.87	1.30	100	150	200	300
Minimum Circuit Ampacity – Standard Electric Defrost										
230V	60Hz	Standard	2.35	4.15	4.69	7.03				
230V	50Hz	Standard	2.54	4.53	5.06	7.59				
Minimum Circuit Ampacity – Optional Gas Defrost										
230V	60Hz	Standard	2.68	4.80	5.34	8.0				
230V	50Hz	Standard	2.89	5.23	5.76	8.64				
Hand Rail Anti-Sweat Heater 230V			0.31	0.47	0.61	0.91	68	104	133	200
Maximum Over Current Protection 230V			NA							
Electric Defrost Heaters 208V 1ph										
Modular U-Shaped			3.29	4.76	6.58	9.87	685	990	1370	2055
Full Length Rod			4.71	7.07	9.42	14.15	980	1470	1960	2943
Total Defrost Heaters			8.00	11.83	16.00	24.02	1665	2460	3330	4998
Standard Lighting (T-8 fluorescent)										
1 Row Canopy & 1 Row Rail			0.52	1.00	1.00	1.50	62	120	120	184
Optional Lighting (T-8 fluorescent)										
2 Row Canopy & 1 Row Rail			0.76	1.50	1.50	2.25	92	180	180	231

† Voltage reduced through transformer

Product Data

<i>Recommended Usable Cube</i> ¹ (Cu Ft/Ft)	7.73 ft ³ /ft (0.72 m ³ /m)
<i>AHRI Total Display Area</i> ² (Sq Ft/Ft)	F6 3.75 ft ² /ft (1.14 m ² /m)
	F6L 4.14 ft ² /ft (1.26 m ² /m)
<i>Shelf Area</i> ³ (Sq Ft/Ft)	11.32 ft ² /ft (3.45 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 and (1) row of 18-inch shelves.

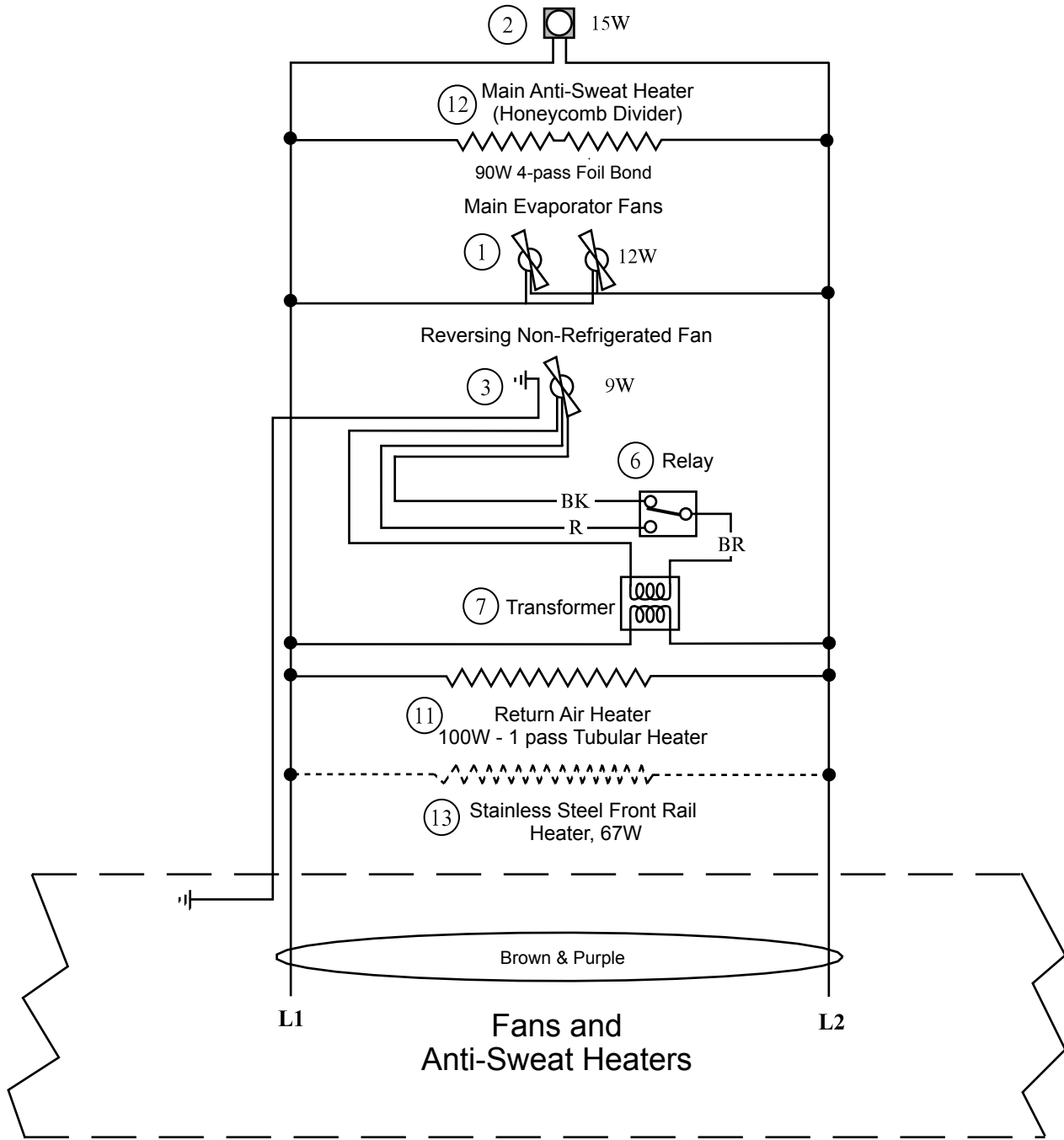
ESTIMATED SHIPPING WEIGHT ⁴					
Case	<i>4 ft</i>	<i>6 ft</i>	<i>8 ft</i>	<i>12 ft</i>	Solid End
					<i>(each)</i>
lb (kg)	1000 (454)	1300 (590)	1700 (771)	2000 (907)	100 (45)

⁴ Actual weights will vary according to optional kits included.

Electric Defrost Fans & Anti-Sweat Heaters

4 ft. Wiring Diagram

Ambient Air Curtain - Muffin Fan



WARNING

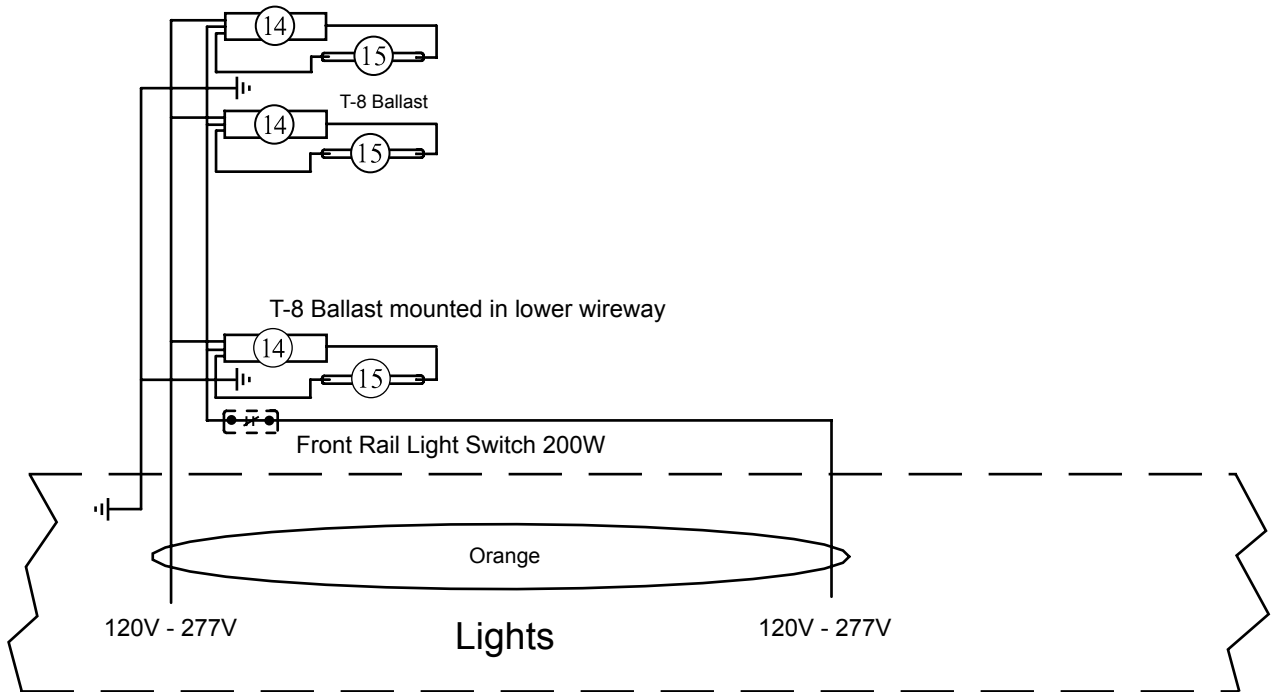
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

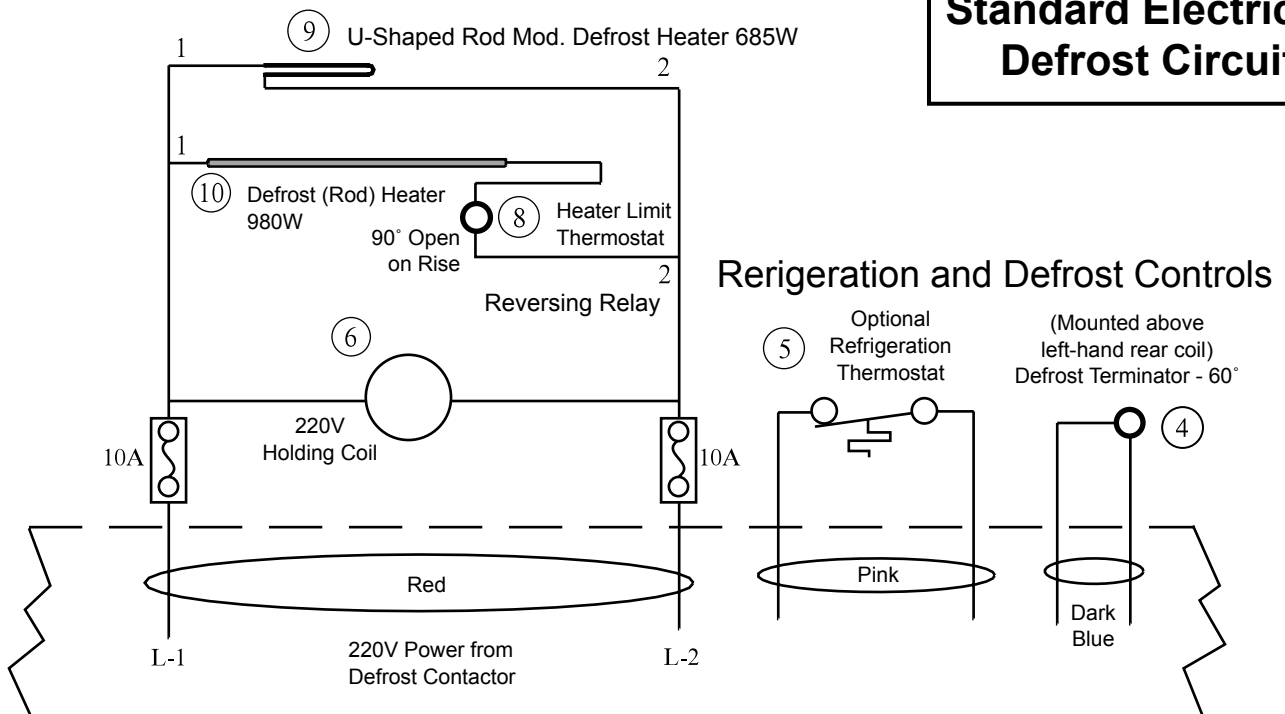
4 ft. Wiring Diagram Lighting Circuit

Ballast mounted next to muffin fans
left and center of canopy area



**Standard Electric
Light Circuit**

Defrost Circuit



**Standard Electric
Defrost Circuit**

Refrigeration and Defrost Controls

WARNING

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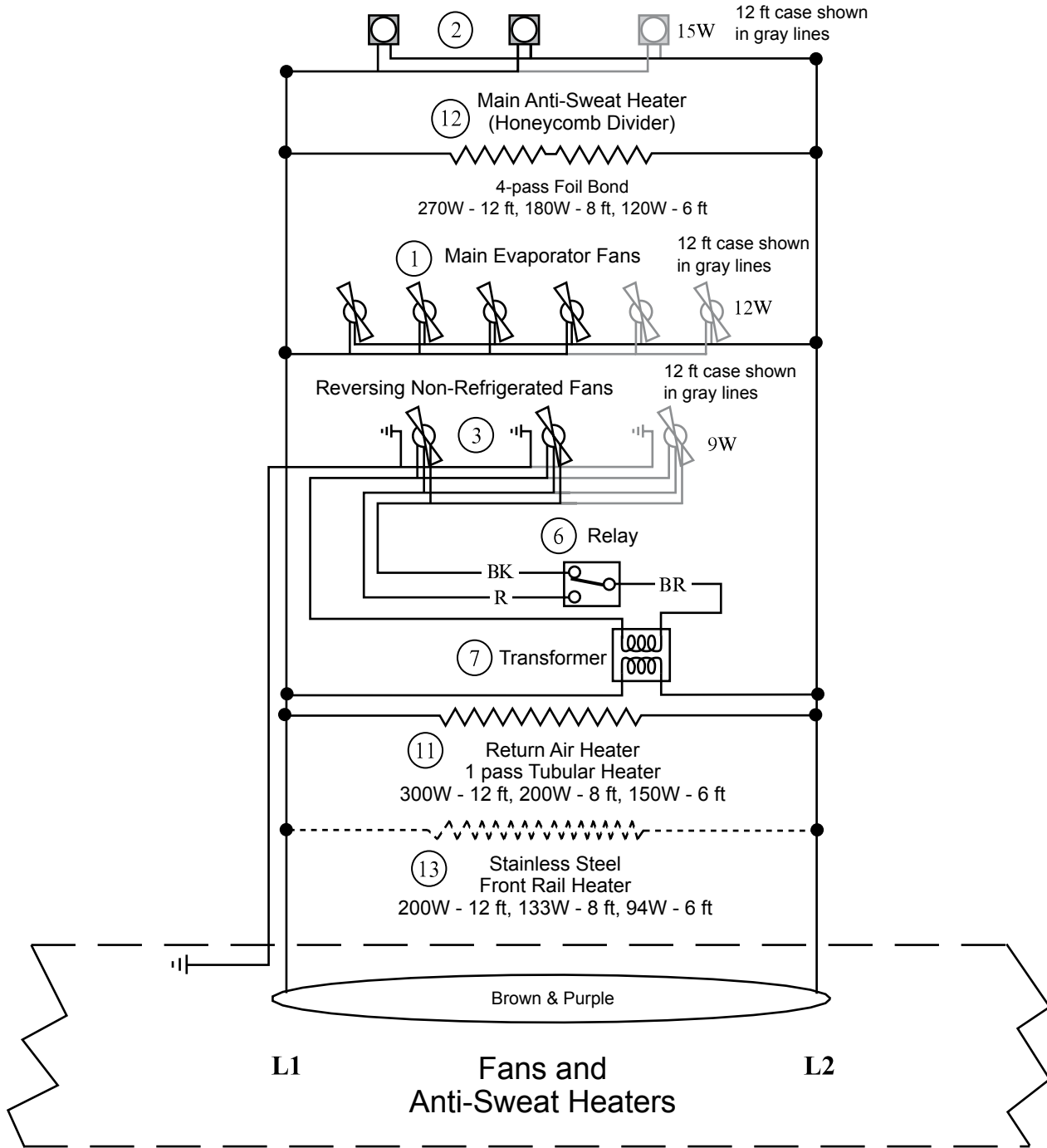
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Electric Defrost Fans & Anti-Sweat Heaters

6, 8, & 12 ft. Wiring Diagram

Ambient Air Curtain - Muffin Fans



WARNING

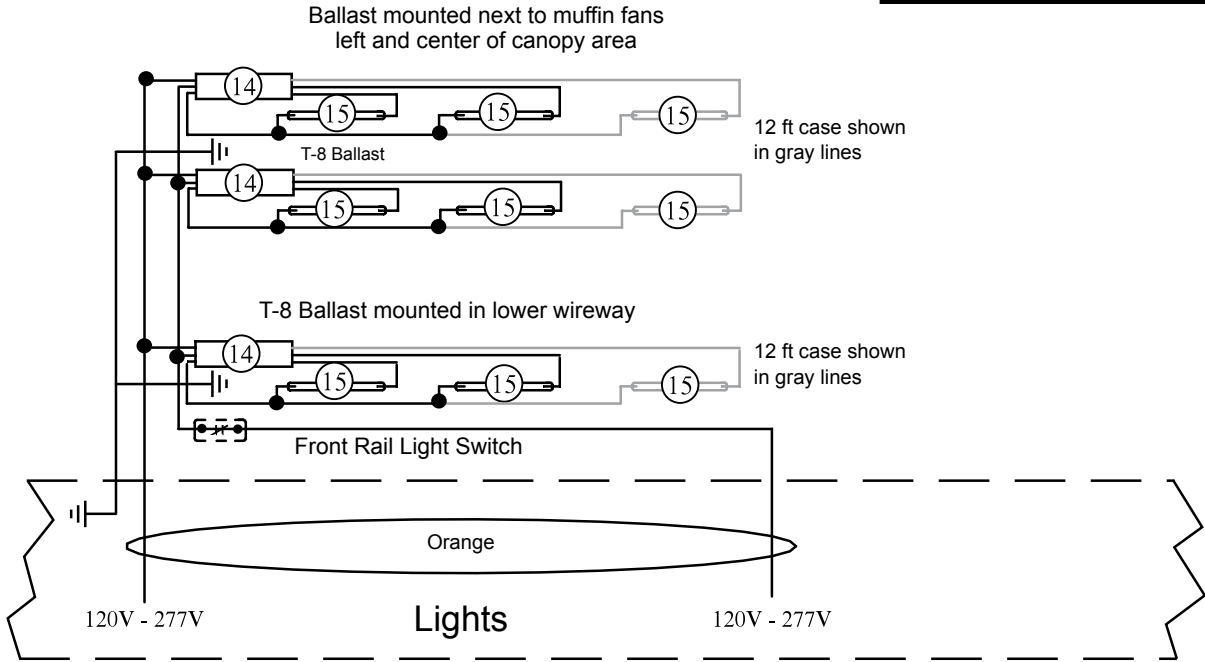
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS
 Grayed components in 12 foot models only

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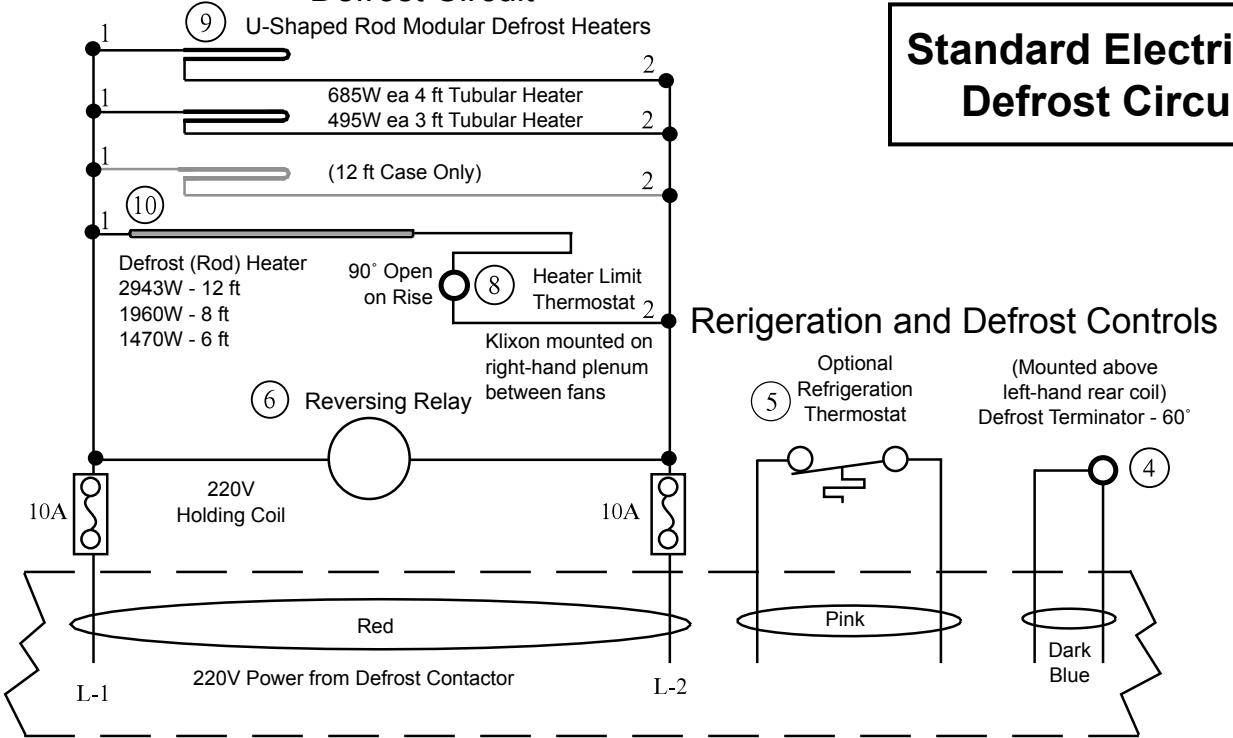
6, 8, & 12 ft. Wiring Diagram Lighting Circuit

Standard Electric Light Circuit



Defrost Circuit

Standard Electric Defrost Circuit



WARNING

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CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

Grayed components in 12 foot models only

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

