

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 #
<b>FAN ASSEMBLIES</b>				<b>THERMOSTATS</b>			
<b>4 Ft, 8 Ft, 10 Ft† &amp; 12 Ft</b>				B. 0411744 Standard Non-adjustable Defrost Thermostat (2) (CT.0411744)			
A.	<b>12W Standard</b>	Fan Assembly	(1)	C. Optional Adjustable Refrigeration Thermostat (3)			
	0047000	Fan Motor, Evaporator (MO.4410103)		<b>LAMPS AND BALLASTS</b>			
	0461805	Fan Blade (FB.4780446)		D. Ballast, Electronic (4)			
		<b>12W Energy Efficient</b> Fan Assembly	(1)	0480130 2 lamps (BA.4481676)			
	0477655	Fan Motor, Evaporator (MO.4410546)		0480131 3 lamps (BA.4481654)			
	0461805	Fan Blade (FB.4780446)		0480132 4 lamps (BA.4481677)			
<b>6 Ft and 10 Ft† Only</b>				E. Fluorescent Lamp (5) <i>Replace with like fixtures</i>			
A.	<b>7W Standard</b>	Fan Assembly	(1)	<b>LED FIXTURES AND POWER SUPPLY</b>			
	0058698	Fan Motor, Evaporator (MO.4410102)		F. 0501213 Power Supply (EP.4481861) (6)			
	0142780	Fan Blade (FB.0142780)		G. LED Canopy Fixture (7) <i>Replace with like fixtures — See Page 5.</i>			
		<b>7W Energy Efficient</b> Fan Assembly	(1)	H. LED Shelf Fixture (8) <i>Replace with like fixtures — See Page 5.</i>			
	0477654	Fan Motor, Evaporator (MO.4410545)					
	0142780	Fan Blade (FB.0142780)					

†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

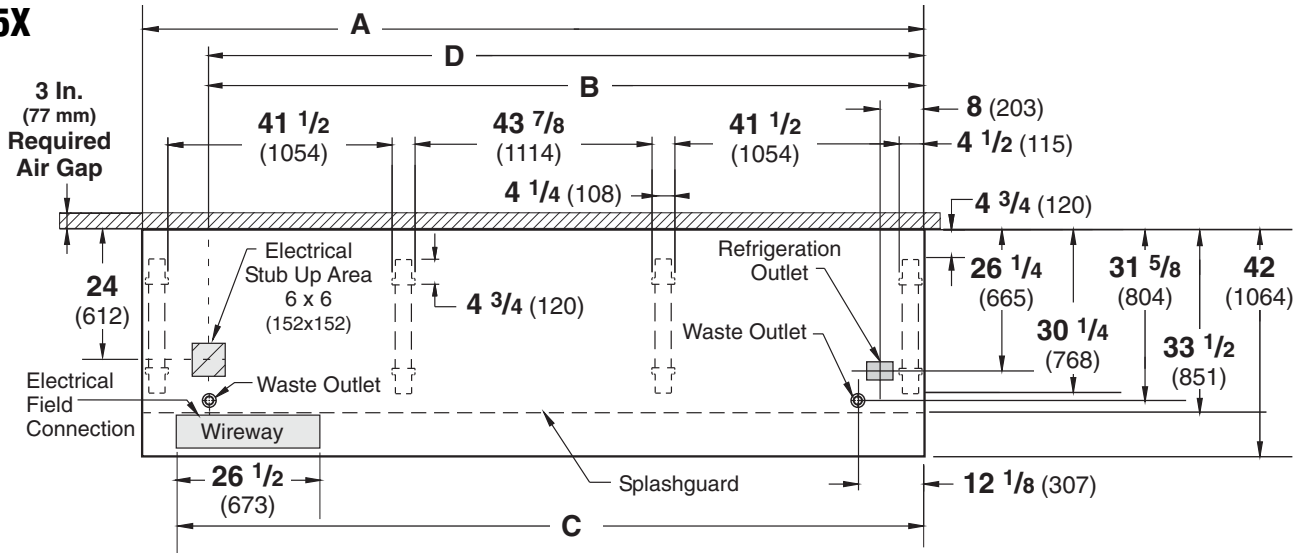
Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	7/8

## Dairy & Delicatessen

09-2004





Dimensions shown as in. and (mm).

### D5X

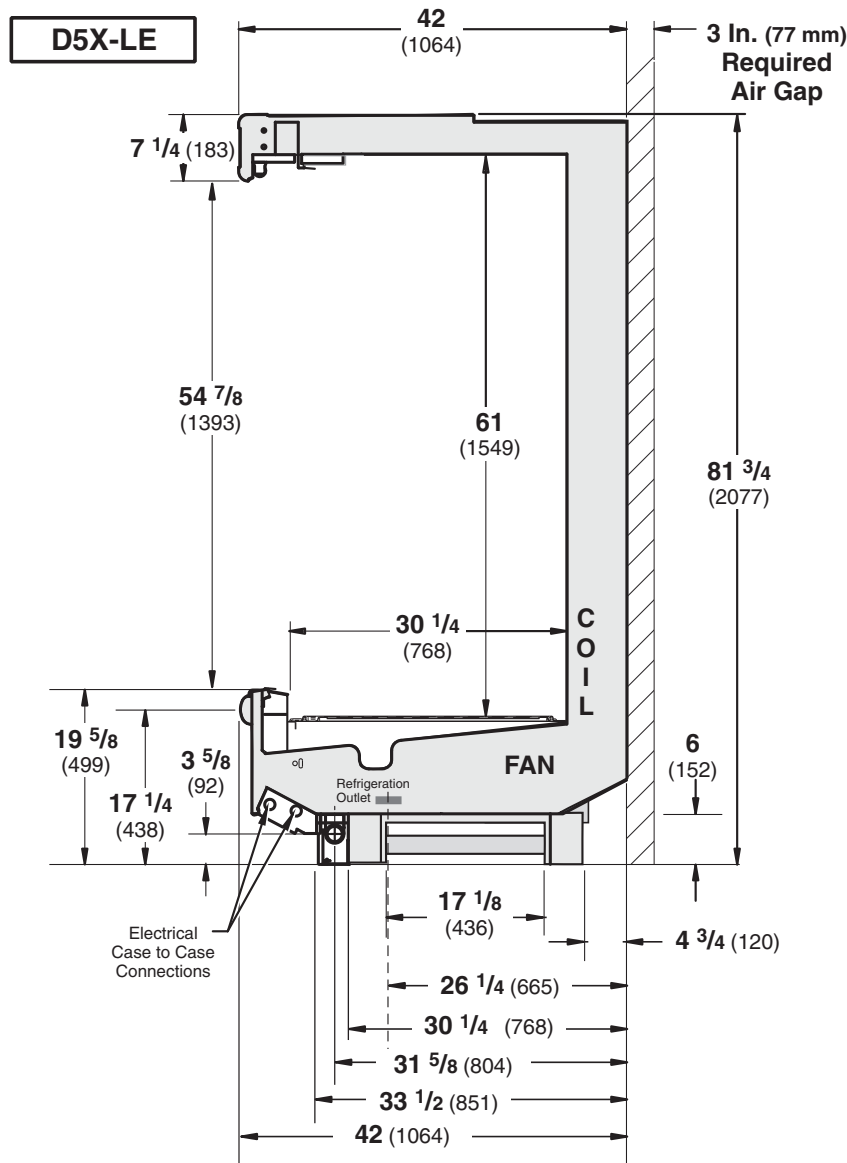


**NOTE: Case-to-Case Electrical Connections are made IN FRONT OF SPLASHGUARD.**

**FRONT**

	4 ft	6 ft	8 ft	10 ft	12 ft
<b>General</b>					
<b>(A) Case Length (without ends or partitions)</b>	48 3/8 (1229)	72 3/8 (1838)	96 3/8 (2448)	120 1/2 (3061)	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 (749)	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)
<b>Electrical Service</b>  <i>(Electrical Field Wiring connection point)</i>					
<b>(B) RH End of case to center of stub up area</b>	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)
<b>(C) RH End of case to LH end of wireway</b>	42 1/8 (1070)	66 1/8 (1680)	90 1/8 (2289)	114 1/4 (2092)	138 1/4 (3511)
<b>Waste Outlets (One each end)</b> 					
<b>(D) RH End of case to the center of LH waste outlet</b>	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)
<b>Refrigeration Outlet</b> 					
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)

Dimensions shown as in. and (mm).



**Impact Excel D5X-LE**  
**Dairy & Delicatessen**

**REFRIGERATION DATA**

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

	D5X-LE
Discharge Air °F	32
Evaporator °F	24
Unit Sizing °F	22

*Btu/hr/ft<sup>‡</sup> — Unlit Shelves<sup>‡‡</sup>*

D5X-LE	Parallel	Conventional
UNLIT	1425	1515
PEG*	1545	1635

\* Hussmann Peg Shelves (Deli only).

<sup>‡</sup> Optional energy efficient motors reduce the refrigeration load by 27 Btu/hr/ft.  
<sup>‡‡</sup> Add 10 Btu/hr/ft *per shelf row* for LED fixtures.  
 Add 20 Btu/hr/ft *per shelf row* for fluorescent lamps.

**DEFROST DATA**

Frequency Hr	6
Defrost Water (lb/ft/day)	10.25
(± 15% based on case configuration and product loading).	

OFFTIME	D5X-LE
Temp Term °F	48
Failsafe Minutes	35

**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**	D5X-LE
	17°F / 7°F

**Indoor Unit Only, Pressure Defrost**

Termination**	48°F
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\*\*Use a Temperature Pressure Chart to determine PSIG conversions.

Estimated Charge **	D5X-LE		
4 ft	1.4 lb	22 oz	0.6 kg
6 ft	1.9 lb	30 oz	0.9 kg
8 ft	2.7 lb	43 oz	1.2 kg
10 ft	3.2 lb	51 oz	1.5 kg
12 ft	3.9 lb	62 oz	1.8 kg

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

**NSF Certification**

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

# Impact *Excel* D5X-LE

## Dairy & Delicatessen

### Electrical Data

			4 ft	6 ft	8 ft	10 ft	12 ft					
Number of Fans – 12W			1	—	2	1	3					
Number of Fans – 7W			—	2	—	2	—					
			Amperes					Watts				
			4 ft	6 ft	8 ft	10 ft	12 ft	4 ft	6 ft	8 ft	10 ft	12 ft
<b>Evaporator Fans</b>												
120V	60Hz	Standard	0.65	1.00	1.30	1.65	1.95	50	78	100	128	150
120V	50Hz	Standard	0.75	1.10	1.50	1.85	2.25	57	84	114	141	171
230V	60Hz	Export	0.33	0.50	0.66	0.83	0.99	50	78	100	128	150
230V	50Hz	Export	0.38	0.56	0.76	0.94	1.14	57	84	114	141	171
120V	60Hz	Energy Efficient	0.30	0.38	0.60	0.68	0.90	18	28	36	46	54
230V	60Hz	Energy Efficient	0.15	0.20	0.30	0.35	0.45	18	28	36	46	54
<b>Minimum Circuit Ampacity</b>												
120V	60Hz	Standard	0.85	1.20	1.50	1.85	2.15					
120V	50Hz	Standard	0.95	1.30	1.70	2.05	2.45					
230V	60Hz	Export	0.53	0.70	0.86	1.03	1.19					
230V	50Hz	Export	0.58	0.76	0.96	1.14	1.34					
120V	60Hz	Energy Efficient	0.50	0.58	0.80	0.88	1.10					
230V	60Hz	Energy Efficient	0.35	0.40	0.50	0.55	0.65					
<b>Maximum Over Current Protection 120V</b>			<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>					
Maximum Over Current Protection 230V			15	15	15	15	15					
<b>Standard Lighting (T-8 fluorescent)</b>												
1 Row Canopy			0.26	0.51	0.51	0.77	0.77	30	59	59	85	85
<b>Optional Lighting (T-8 fluorescent)</b>												
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
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
<b>EcoShine — Normal (CRI) — 120VAC, 50/60Hz</b>												
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
<b>EcoShine — High CRI — 120VAC, 50/60Hz</b>												
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
<b>Always*Bright — 120VAC, 50/60Hz</b>												
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> <sup>2</sup> (Cu Ft/Ft)	9.39 ft <sup>3</sup> /ft (0.87 m <sup>3</sup> /m)
<i>AHRI Total Display Area</i> <sup>3</sup> (Sq Ft/Ft)	4.86 ft <sup>2</sup> /ft (1.48 m <sup>2</sup> /m)
<i>Shelf Area</i> <sup>4</sup> (Sq Ft/Ft)	9.89 ft <sup>2</sup> /ft (3.02 m <sup>2</sup> /m)

- <sup>2</sup> AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft<sup>3</sup>/ft [m<sup>3</sup>/m]  
<sup>3</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]/Unit of Length, ft [m]  
<sup>4</sup> 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 <sup>5</sup>						
Case						Solid End
	<i>4 ft</i>	<i>6 ft</i>	<i>8 ft</i>	<i>10 ft</i>	<i>12 ft</i>	<i>(each)</i>
<b>Ib (kg)</b>	800 (363)	1000 (454)	1200 (544)	1300 (590)	1400 (635)	100 (45)

<sup>5</sup> Actual weights will vary according to optional kits included.

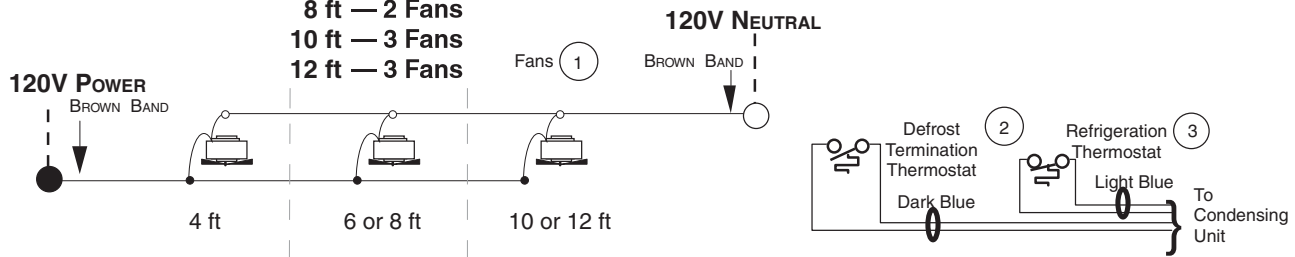
PARTS LIST (Continued from Page 1)							
Item	Part #	Description		Item	Part #	Description	
<b>LED FIXTURES AND POWER SUPPLY</b>							
F.	0501213	Power Supply (EP.4481861)	(6)	G.	<b>(CONTINUED) EcoShine LED Canopy Fixture</b>		
G.	<b>EcoShine LED Canopy Fixture</b>			4441713	Rear	36-inch	<b>2900K</b> HCRI
	4441720	Front	48-inch	4441715	Rear	36-inch	<b>3500K</b> HCRI
	4441722	Front	48-inch	4441717	Rear	36-inch	<b>3500K</b>
	4441724	Front	48-inch	4441719	Rear	36-inch	<b>4100K</b>
	4441726	Front	48-inch	H.	<b>EcoShine LED Shelf Fixture</b>		
	4441726	Front	48-inch	4441590	48-inch	<b>2900K</b> HCRI	(8)
	4441721	Rear	48-inch	4441591	48-inch	<b>3500K</b> HCRI	
	4441723	Rear	48-inch	4441592	48-inch	<b>3500K</b>	
	4441725	Rear	48-inch	4441593	48-inch	<b>4100K</b>	
	4441727	Rear	48-inch				
	4441712	Front	36-inch	4441586	36-inch	<b>2900K</b> HCRI	
	4441714	Front	36-inch	4441587	36-inch	<b>3500K</b> HCRI	
	4441716	Front	36-inch	4441588	36-inch	<b>3500K</b>	
	4441718	Front	36-inch	4441589	36-inch	<b>4100K</b>	

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

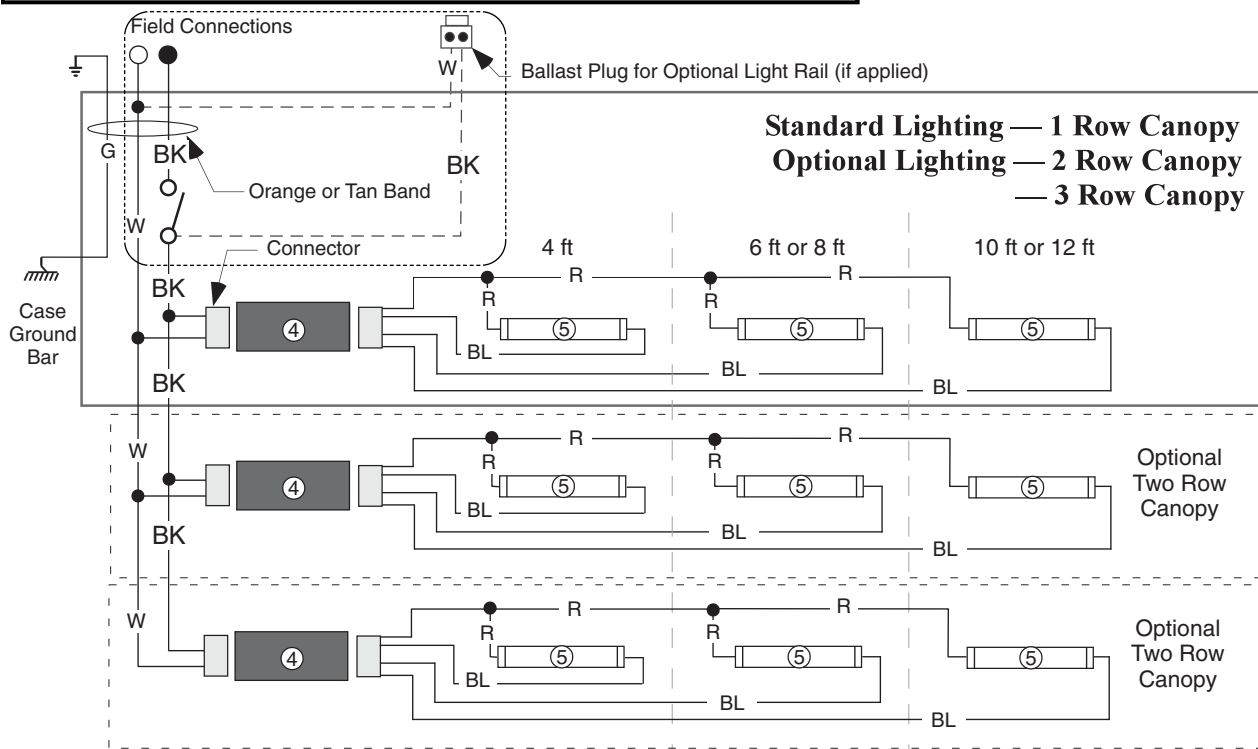
# Fan Wiring Offtime Defrost

1, 2 & 3 Fans

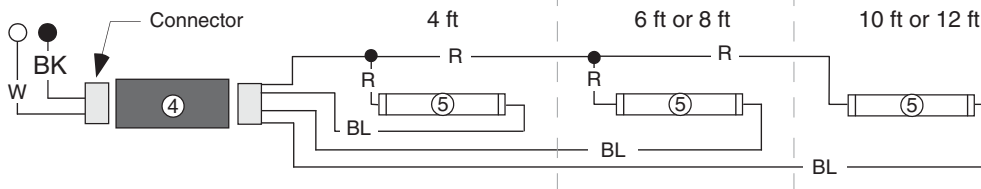
4 ft — 1 Fan  
6 ft — 2 Fans  
8 ft — 2 Fans  
10 ft — 3 Fans  
12 ft — 3 Fans



# Canopy Light Circuits — Fluorescent Fixtures



## Optional Lighting — 1 Row Rail



### WARNING

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

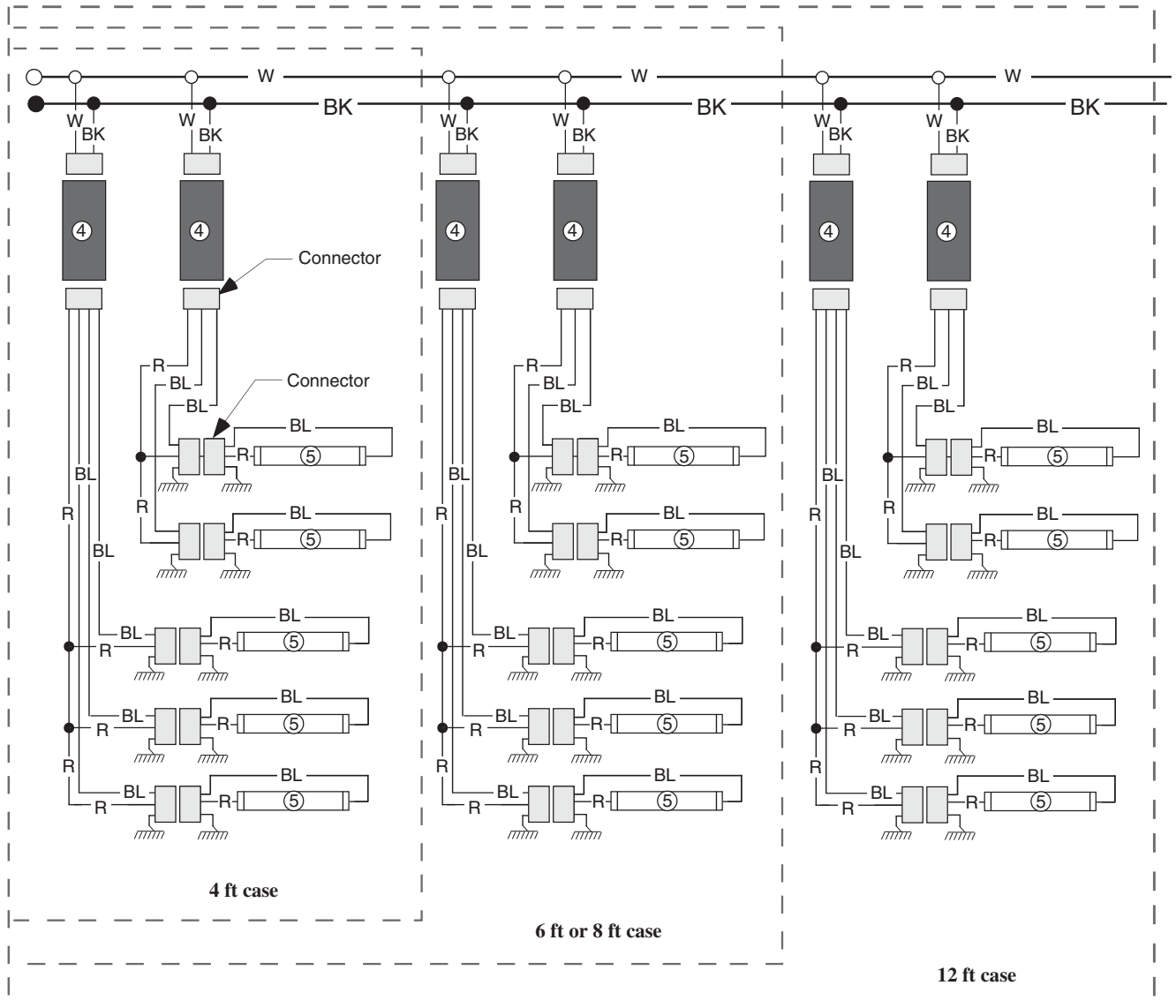
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

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

# Optional 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.

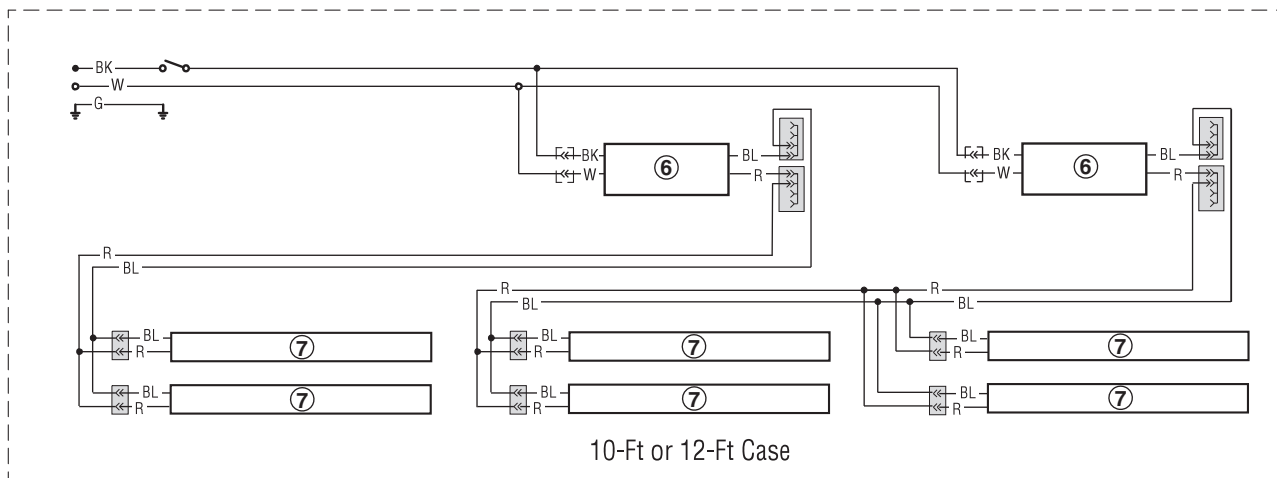
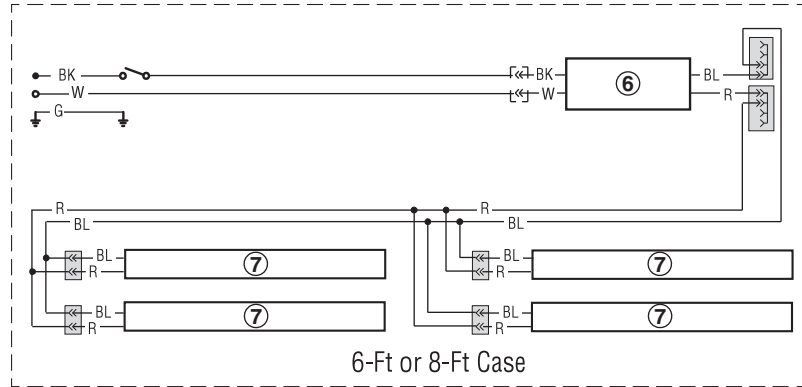
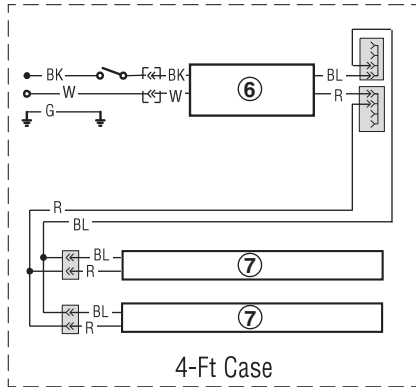
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

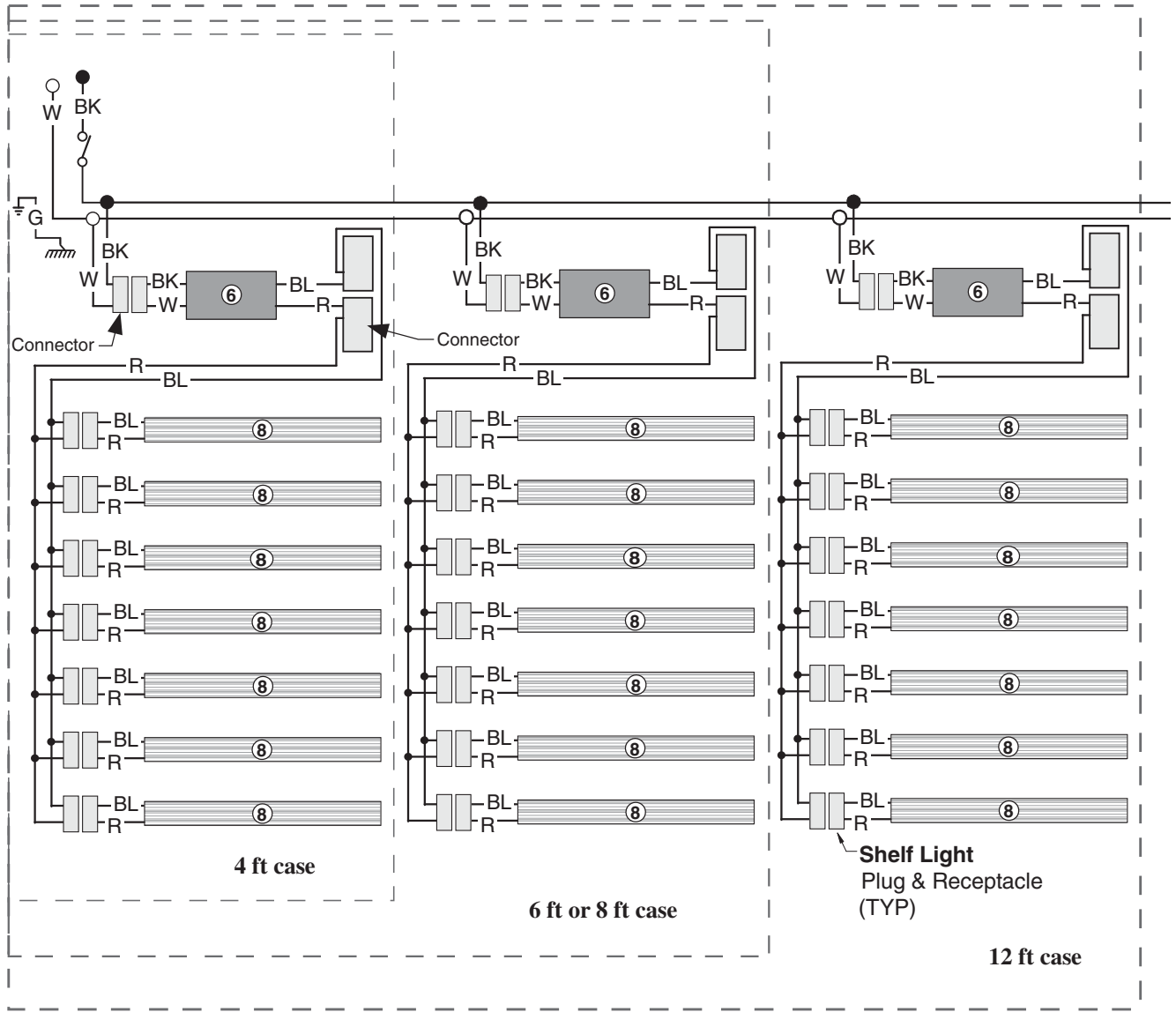
R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

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



# Optional Shelf Lighting LED Fixtures

## Optional Shelf Harness and LED Light Circuits for 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      mm = CASE GROUND