

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>LAMPS AND BALLASTS</b>			
<b>8 Ft &amp; 12 Ft</b>				C.	Ballast, Electronic		(3)
A.	12W Standard Fan Assembly		(1)	0480130	2 lamps (BA.4481676)		
	0047000	Fan Motor, Evaporator (MO.4410103)		0480131	3 lamps (BA.4481654)		
	0463643	Fan Blade (FB.4780648)		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)		<b>LED FIXTURES AND POWER SUPPLY</b>			
<b>THERMOSTATS</b>				E.	0501213	Power Supply (EP.4481861)	(5)
B.	Optional Adjustable Refrigeration Thermostat		(2)	F.	LED Canopy Fixture		(6)
					<i>Replace with like fixtures — See Page 5.</i>		
				G.	LED Shelf Fixture		(7)
					<i>Replace with like fixtures — See Page 5.</i>		

Note: Revision B corrects nomenclature



# Engineering Plan Views

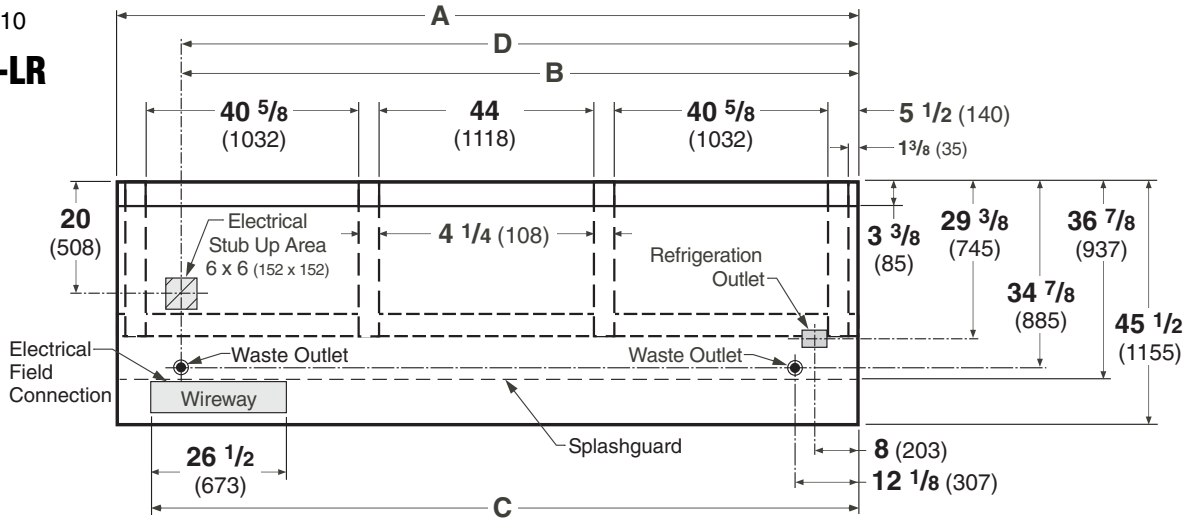
PHYSICAL DATA	
Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	7/8

## Rear Load Dairy & Delicatessen

08-2010

**DD5X-LR**

Dimensions shown as in. and (mm).



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

**FRONT**

12 ft plan view is shown.

### General

#### (A) Case Length (without ends or partitions)

(Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)

Maximum O/S dimension of case

(back to front, including bumper)

Back of case to front of splashguard

Back of case to O/S edge of front skid rail

Width of skid rail

RH end of case to outside edge of external support

Distance between edges of external support and center support

Distance between edges of center supports

Distance between front skid rail and splashguard

#### Electrical Service (Electrical Field Wiring connection point)

#### (B) RH End of case to center of stub up area

Back of case to center of stub up area

Length of electrical wireway

Wireway

#### (C) RH End of case to LH end of wireway

#### Waste Outlets (One each end)

#### (D) End of case to the center of farthest waste outlet

End of case to the center of nearest waste outlet

Back O/S of case to center of waste outlets

Outside diameter of the drip pipe

#### Refrigeration Outlet

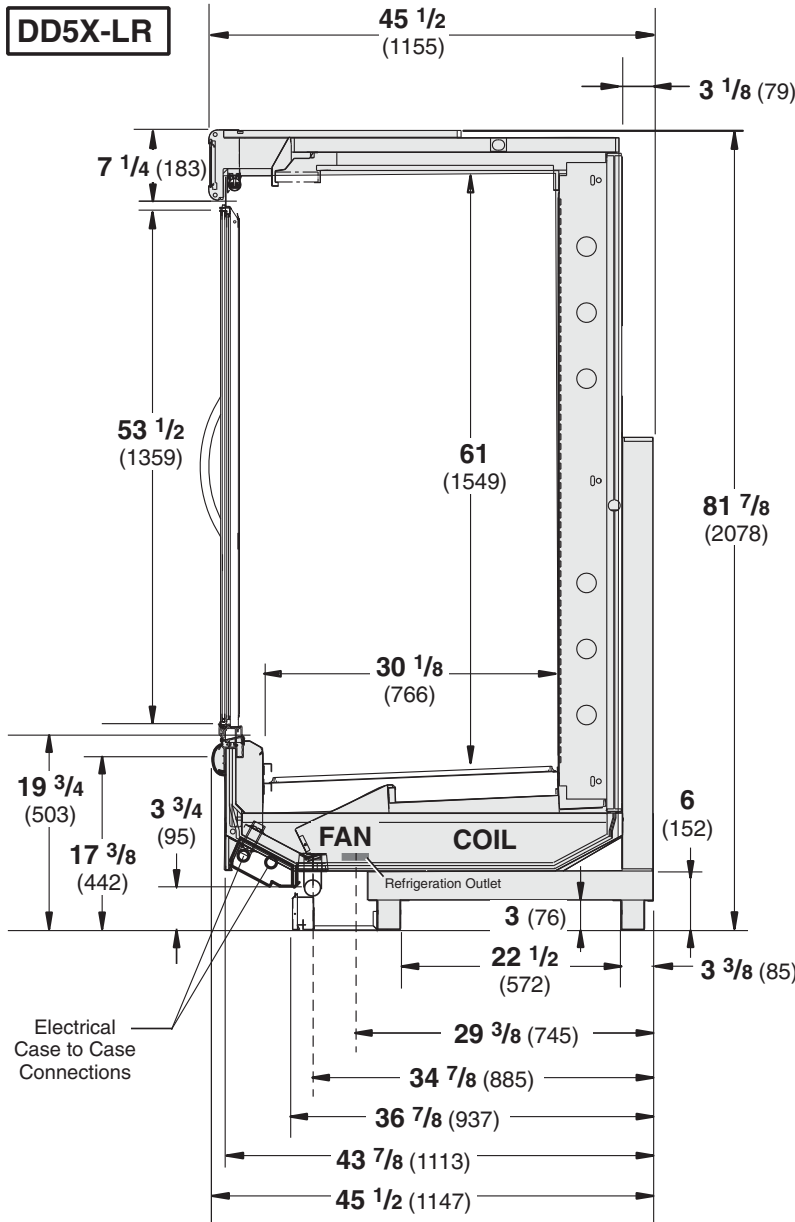
Back of case to center of refrigeration outlet

RH end of case to center of refrigeration outlet

	8 ft	12 ft
(A) Case Length (without ends or partitions)	96 3/8 (2448)	144 1/2 (3670)
Maximum O/S dimension of case (back to front, including bumper)	45 1/2 (1155)	45 1/2 (1155)
Back of case to front of splashguard	36 7/8 (937)	36 7/8 (937)
Back of case to O/S edge of front skid rail	29 1/2 (749)	29 1/2 (749)
Width of skid rail	2 3/8 (61)	2 3/8 (61)
RH end of case to outside edge of external support	5 1/2 (140)	5 1/2 (140)
Distance between edges of external support and center support	40 5/8 (1032)	40 5/8 (1032)
Distance between edges of center supports	NA	44 (1118)
Distance between front skid rail and splashguard	6 (152)	6 (152)
(B) RH End of case to center of stub up area	84 1/4 (2140)	132 3/8 (3363)
Back of case to center of stub up area	20 (508)	20 (508)
Length of electrical wireway	26 1/2 (673)	26 1/2 (673)
(C) RH End of case to LH end of wireway	90 1/8 (2289)	138 1/4 (3511)
(D) End of case to the center of farthest waste outlet	84 1/4 (2140)	132 3/8 (3363)
End of case to the center of nearest waste outlet	12 1/8 (307)	12 1/8 (307)
Back O/S of case to center of waste outlets	34 7/8 (885)	34 7/8 (885)
Outside diameter of the drip pipe	1 1/4 (32)	1 1/4 (32)
Refrigeration Outlet	29 3/8 (745)	29 3/8 (745)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)

**Impact *Excel* DD5X-LR**  
Dairy & Delicatessen

Dimensions shown as in. and (mm).



**REFRIGERATION DATA**

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

DD5X-LR	UNLIT	LIT	PEG*
Discharge Air °F	39	37	37
Evaporator °F	34	32	32
Unit Sizing °F	32	30	30

*Btu/hr/ft* ‡ — *Unlit Shelves* ‡‡

DD5X-LR	Parallel	Conventional
UNLIT	410	420
PEG*	440	450

\* Hussmann Peg Shelves (Deli only).

‡ 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**

Frequency Hr	24
Defrost Water (lb/ft/day)	1.0

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

OFFTIME	DD5X-LR
Time (Minutes)	25

**ELECTRIC OR GAS** Not Recommended

**CONVENTIONAL CONTROLS**

**Low Pressure Backup Control**

CI/CO**	DD5X-LR
	25°F / 15°F

**Indoor Unit Only,**

**Pressure Defrost Termination\*\*** 48°F

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

**Estimated Charge \*\*\*** DD5X-LR

<b>8 ft</b>	2.7 lb	43 oz	1.2 kg
<b>12 ft</b>	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.

<b>Impact <i>Excel</i> DD5X-LR</b> <b>Dairy &amp; Delicatessen</b>
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### Electrical Data

	8 ft	12 ft		
Number of Fans – 12W	2	3		
Number of Fans – 7W	—	—		
	Amperes		Watts	
	8 ft	12 ft	8 ft	12 ft
<b>Evaporator Fans</b>				
120V 60Hz Standard	1.30	1.95	100	150
120V 50Hz Standard	1.50	2.25	114	171
230V 60Hz Export	0.66	0.99	100	150
230V 50Hz Export	0.76	1.14	114	171
120V 60Hz Energy Efficient	0.60	0.90	36	54
230V 60Hz Energy Efficient	0.30	0.45	36	54
<b>Minimum Circuit Ampacity</b>				
120V 60Hz Standard	1.50	2.15		
120V 50Hz Standard	1.70	2.45		
230V 60Hz Export	0.86	1.19		
230V 50Hz Export	0.96	1.34		
120V 60Hz Energy Efficient	0.80	1.10		
230V 60Hz Energy Efficient	0.50	0.65		
<b>Maximum Over Current Protection 120V</b>	<b>20</b>	<b>20</b>		
Maximum Over Current Protection 230V	15	15		
<b>Standard Lighting (T-8 fluorescent)</b>				
1 Row Canopy	0.51	0.77	59	85
<b>Optional Lighting (T-8 fluorescent)</b>				
Additional 1 Row Canopy	0.51	0.77	59	85
Additional 2 Row Canopy	1.02	1.54	118	170
Additional 3 Row Canopy	1.53	2.31	177	255
1 Row of Shelves	0.51	0.77	59	85
4 Rows of Shelves	2.04	3.08	236	340
5 Rows of Shelves	2.55	3.85	295	425
6 Rows of Shelves	3.06	4.62	354	510
<b>Optional LED Canopy Lighting</b>				
<b>EcoShine CRI — 120VAC, 50/60Hz</b>				
2 Row Canopy	0.55	0.82	66	98
1 Rows of Shelves	0.20	0.29	24	35
4 Rows of Shelves	0.78	1.17	93	140
5 Rows of Shelves	0.97	1.45	116	174
6 Rows of Shelves	1.17	1.74	140	209
<b>EcoShine High CRI — 120VAC, 50/60Hz</b>				
2 Row Canopy	0.62	0.93	74	112
1 Rows of Shelves	0.23	0.35	28	42
4 Rows of Shelves	0.93	1.40	112	168
5 Rows of Shelves	1.17	1.75	140	210
6 Rows of Shelves	1.40	2.10	168	252

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>1</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>2</sup> (Sq Ft/Ft)	4.40 ft <sup>2</sup> /ft (1.34 m <sup>2</sup> /m)
<i>Shelf Area</i> <sup>3</sup> (Sq Ft/Ft)	9.85 ft <sup>2</sup> /ft (3.00 m <sup>2</sup> /m)

- <sup>1</sup> ARI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft<sup>3</sup>/ft [m<sup>3</sup>/m]  
<sup>2</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]/Unit of Length, ft [m]  
<sup>3</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.

<b>ESTIMATED SHIPPING WEIGHT <sup>4</sup></b>			
Case	8 ft		Solid End
	12 ft		(each)
lb (kg)	1500 (680)	2050 (930)	100 (45)

<sup>4</sup> Actual weights will vary according to optional kits included.

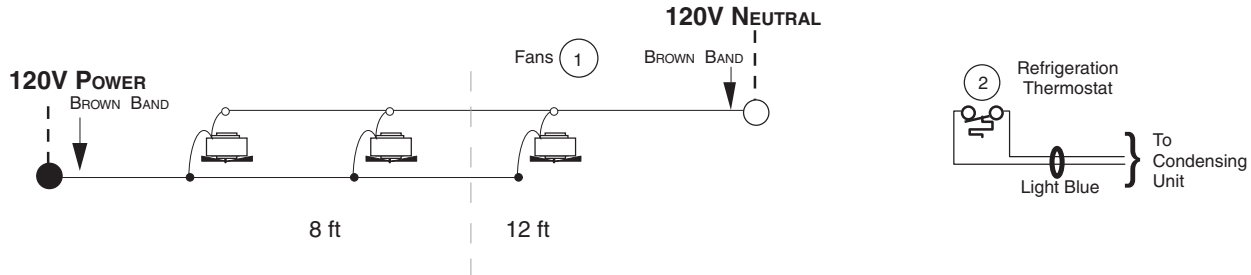
<b>PARTS LIST (Continued from Page 1)</b>								
Item	Part #	Description			Item	Part #	Description	
<b>LED FIXTURES AND POWER SUPPLY</b>								
F.	0501213	Power Supply (EP.4481861)		(6)	G.	<b>(CONTINUED) EcoShine LED Canopy Fixture</b>		
					4441713	Rear	36-inch <b>2900K</b> HCRI	
					4441715	Rear	36-inch <b>3500K</b> HCRI	
G.	<b>EcoShine LED Canopy Fixture</b>			(7)	4441717	Rear	36-inch <b>3500K</b>	
	4441720	Front	48-inch	<b>2900K</b> HCRI	4441719	Rear	36-inch <b>4100K</b>	
	4441722	Front	48-inch	<b>3500K</b> HCRI				
	4441724	Front	48-inch	<b>3500K</b>	H.	<b>EcoShine LED Shelf Fixture</b>		
	4441726	Front	48-inch	<b>4100K</b>			(8)	
	4441721	Rear	48-inch	<b>2900K</b> HCRI	4441590	48-inch	<b>2900K</b> HCRI	
	4441723	Rear	48-inch	<b>3500K</b> HCRI	4441591	48-inch	<b>3500K</b> HCRI	
	4441725	Rear	48-inch	<b>3500K</b>	4441592	48-inch	<b>3500K</b>	
	4441727	Rear	48-inch	<b>4100K</b>	4441593	48-inch	<b>4100K</b>	
	4441712	Front	36-inch	<b>2900K</b> HCRI	4441586	36-inch	<b>2900K</b> HCRI	
	4441714	Front	36-inch	<b>3500K</b> HCRI	4441587	36-inch	<b>3500K</b> HCRI	
	4441716	Front	36-inch	<b>3500K</b>	4441588	36-inch	<b>3500K</b>	
	4441718	Front	36-inch	<b>4100K</b>	4441589	36-inch	<b>4100K</b>	

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

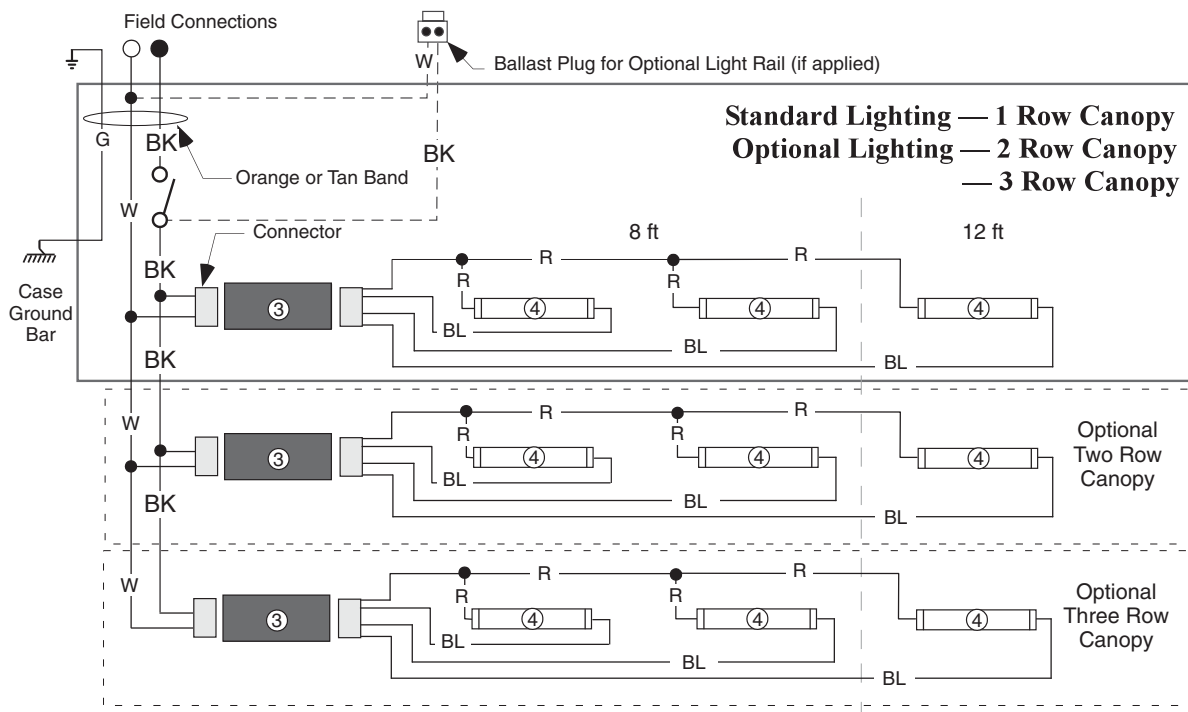
# Fan Wiring Offtime Defrost

## 2 & 3 Fans

8 ft — 2 Fans  
12 ft — 3 Fans



# Canopy Light Circuits — Fluorescent Fixtures



### WARNING

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

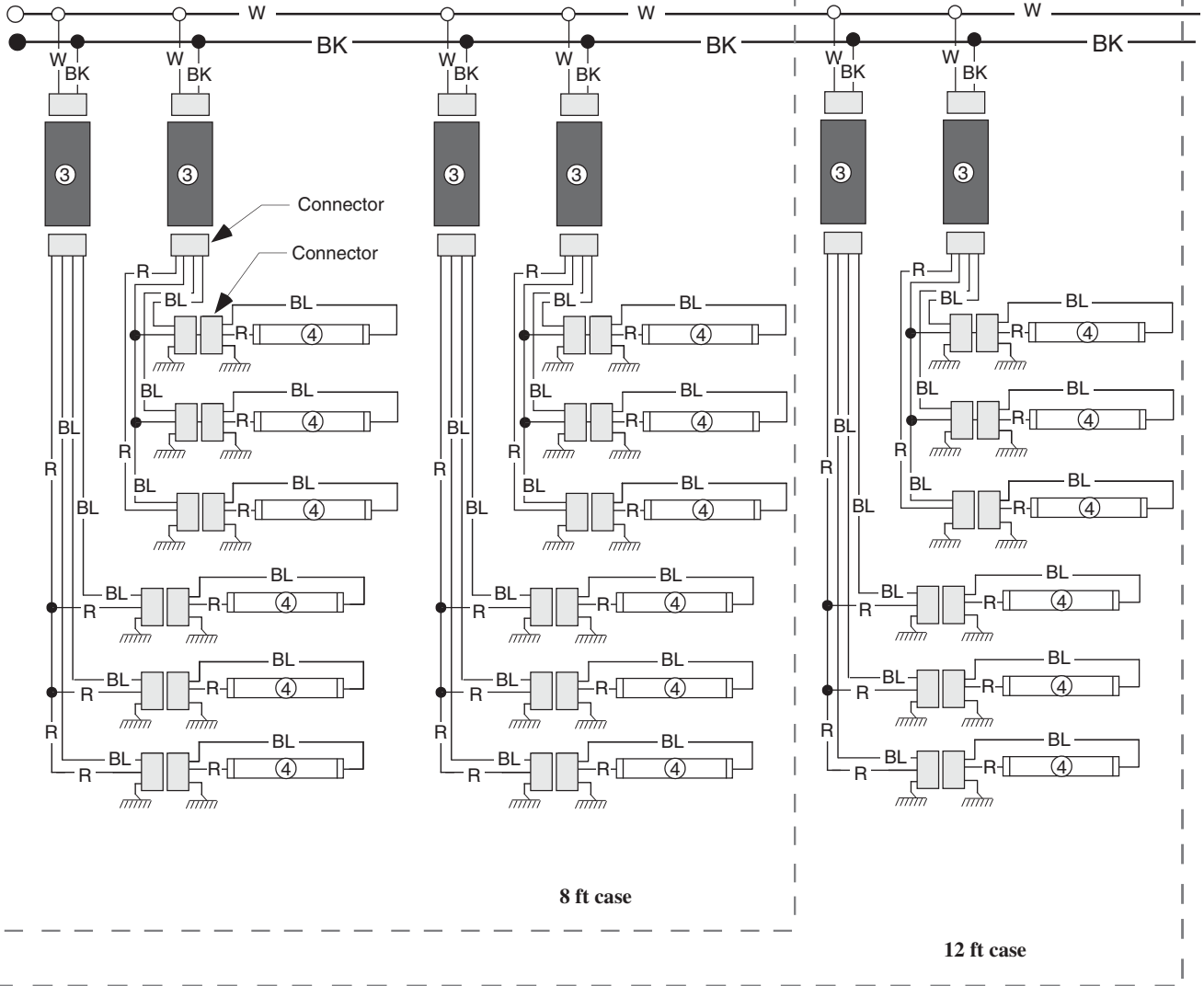
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

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

# Optional Shelf Lighting Fluorescent Fixtures

## Optional Shelf Harness and Fluorescent Light Circuits for Six Rows of Shelves



### WARNING

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

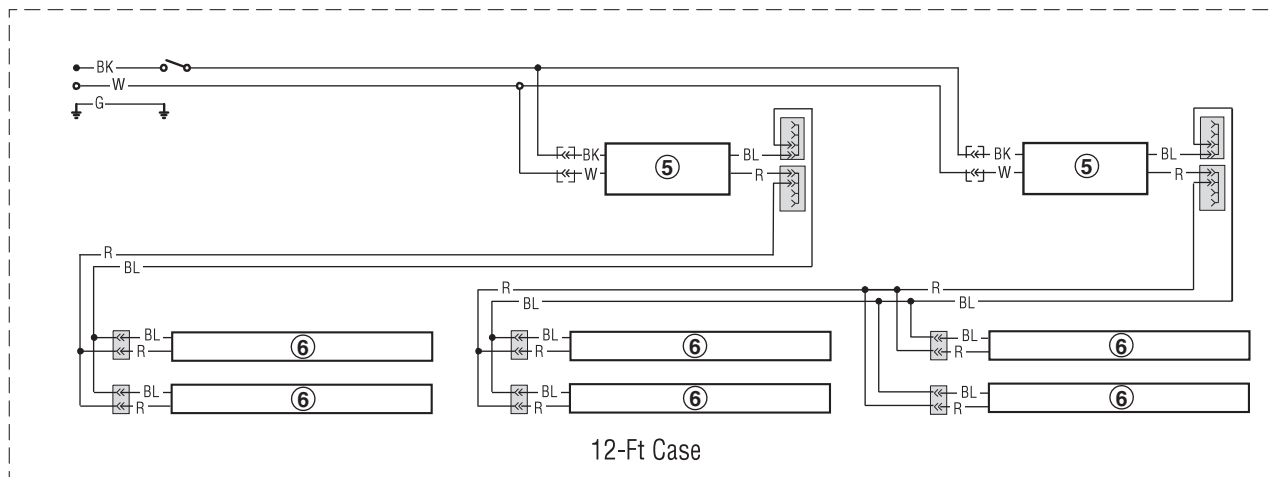
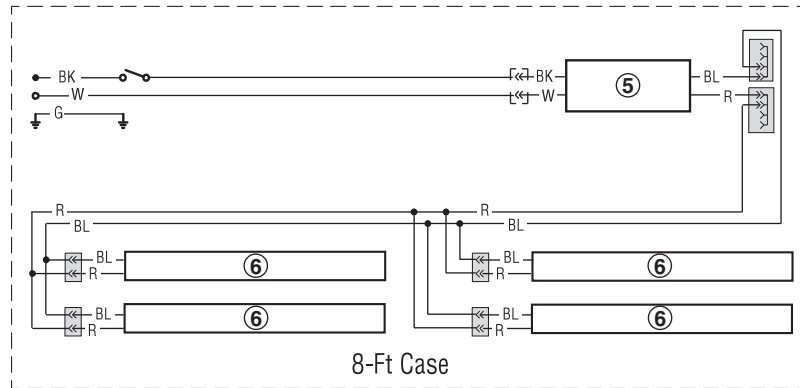
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

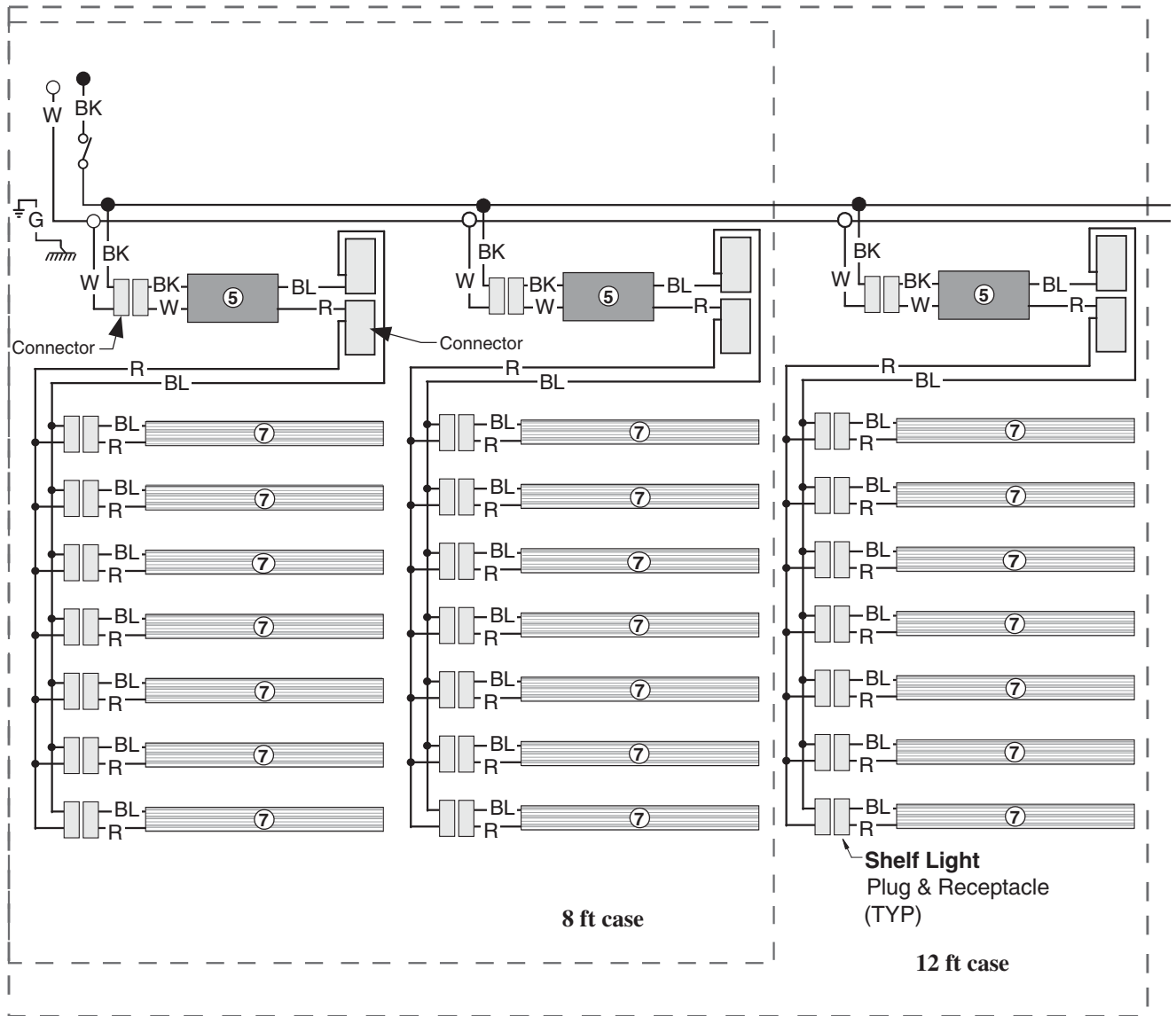
R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

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



# Optional Shelf Lighting LED Fixtures

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



### WARNING

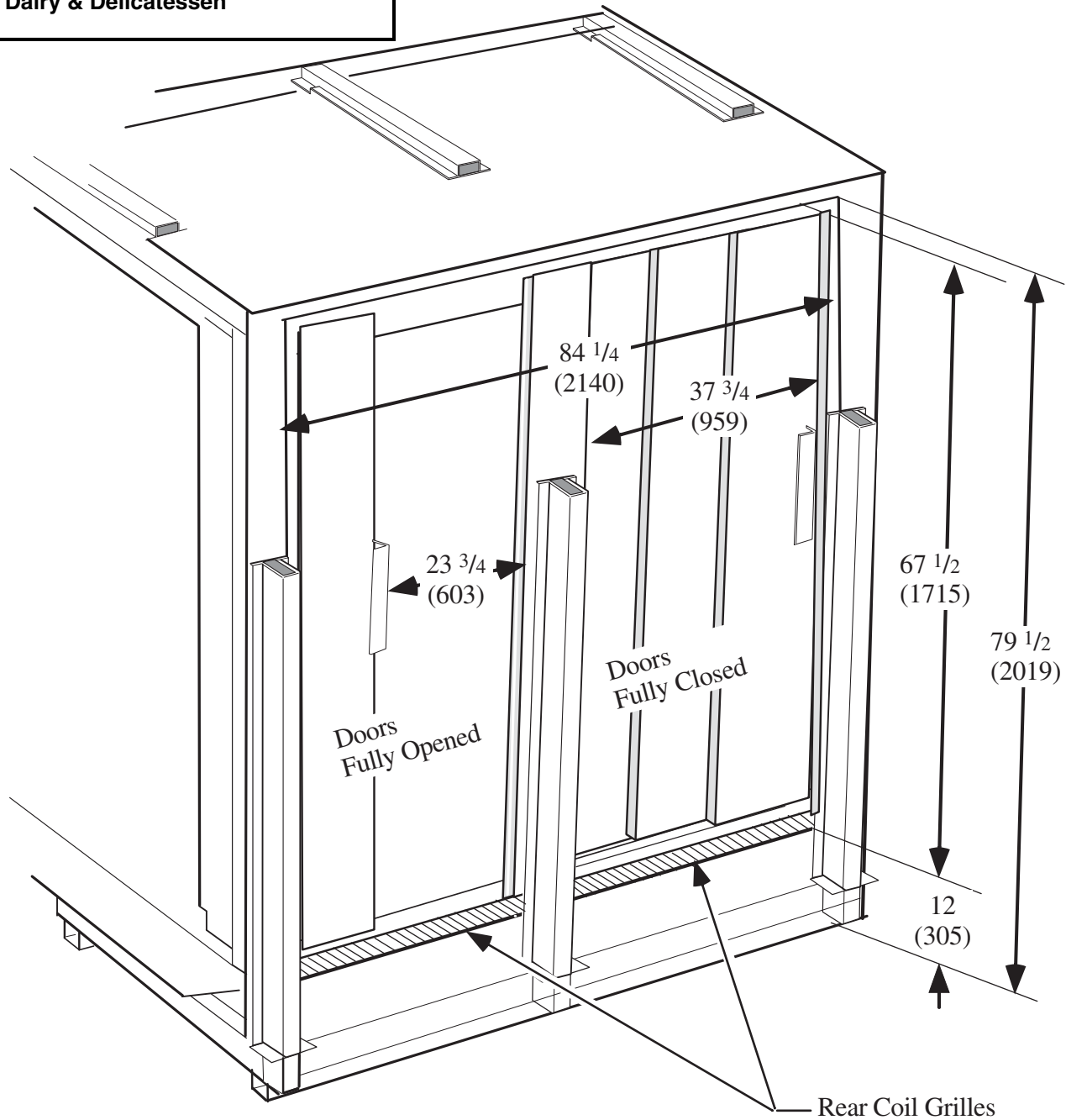
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

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

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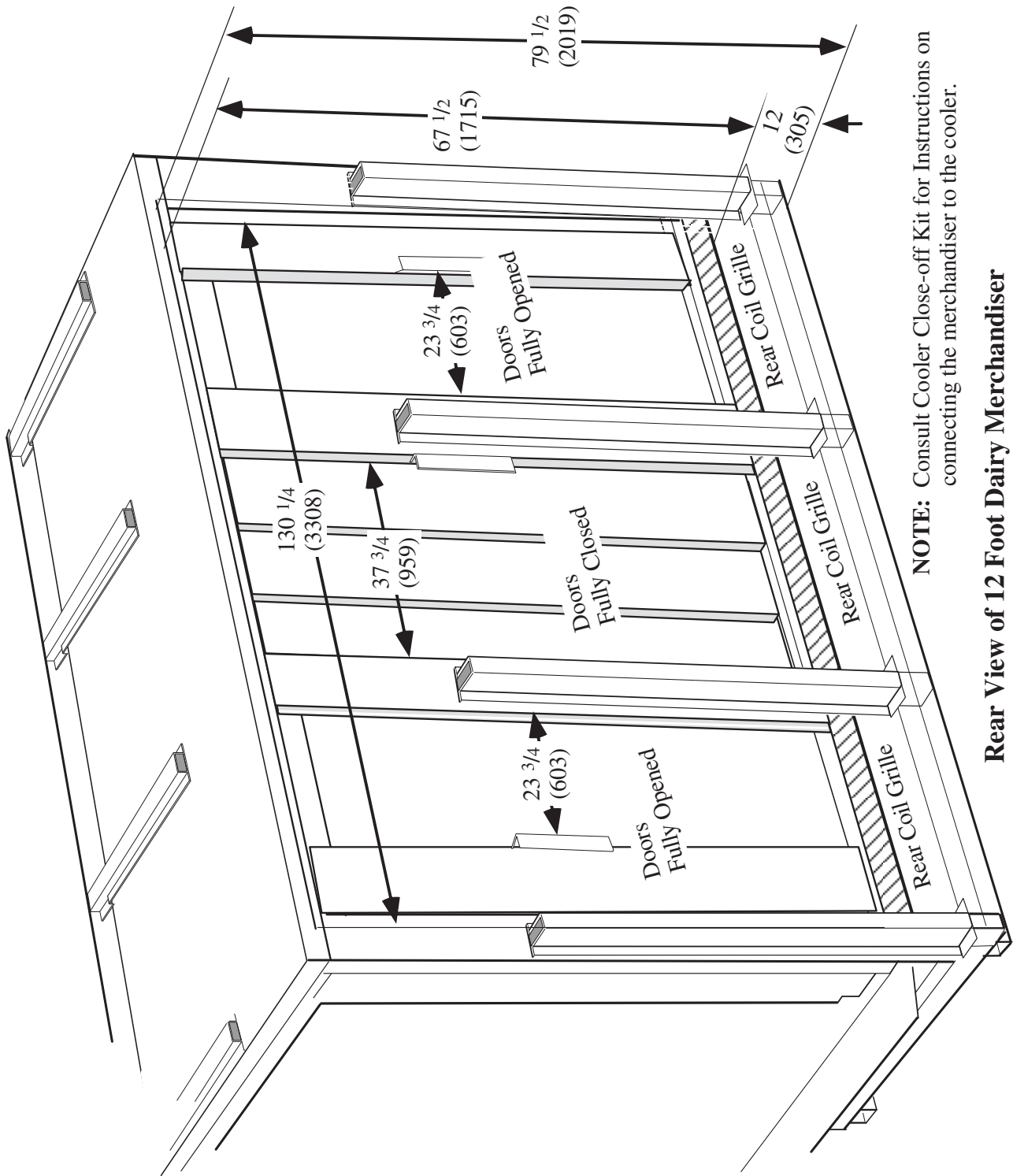


**Rear View of 8 Foot Dairy Merchandiser**

Double-walled telescoping doors slide both left and right.

**NOTE:** Consult Cooler Close-off Kit for instructions on connecting the merchandiser to the cooler.

**Impact Excel DD5X-LR**  
**Dairy & Delicatessen**



**NOTE:** Consult Cooler Close-off Kit for Instructions on connecting the merchandiser to the cooler.

**Rear View of 12 Foot Dairy Merchandiser**  
 Double-walled telescoping doors slide both left and right.