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Item	Part #	Description	Wiring Item #	Item	Part #	Description	Wiring Item #
<b>FAN ASSEMBLIES</b>				<b>THERMOSTATS</b>			
<b>8 Ft, 10 Ft† &amp; 12 Ft</b>				B.	0411744	Standard Non-adjustable Defrost Thermostat (CT.0411744)	(2)
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>10 Ft† Only</b>				E.		Fluorescent Lamp	(5)
A.	<b>7W Standard</b>	Fan Assembly	(1)	<i>Replace with like fixtures</i>			
	0058698	Fan Motor, Evaporator (MO.4410102)		<b>LED FIXTURES AND POWER SUPPLY</b>			
	0142780	Fan Blade (FB.0142780)		F.	0501213	Power Supply (EP.4481861)	(6)
	<b>7W Energy Efficient</b>	Fan Assembly	(1)	G.		LED Canopy Fixture	(7)
	0477654	Fan Motor, Evaporator (MO.4410545)		<i>Replace with like fixtures — See Page 5.</i>			
	0142780	Fan Blade (FB.0142780)		H.		LED Shelf Fixture	(8)
				<i>Replace with like fixtures — See Page 5.</i>			

†10 Ft uses both.

Note: Revision E 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.



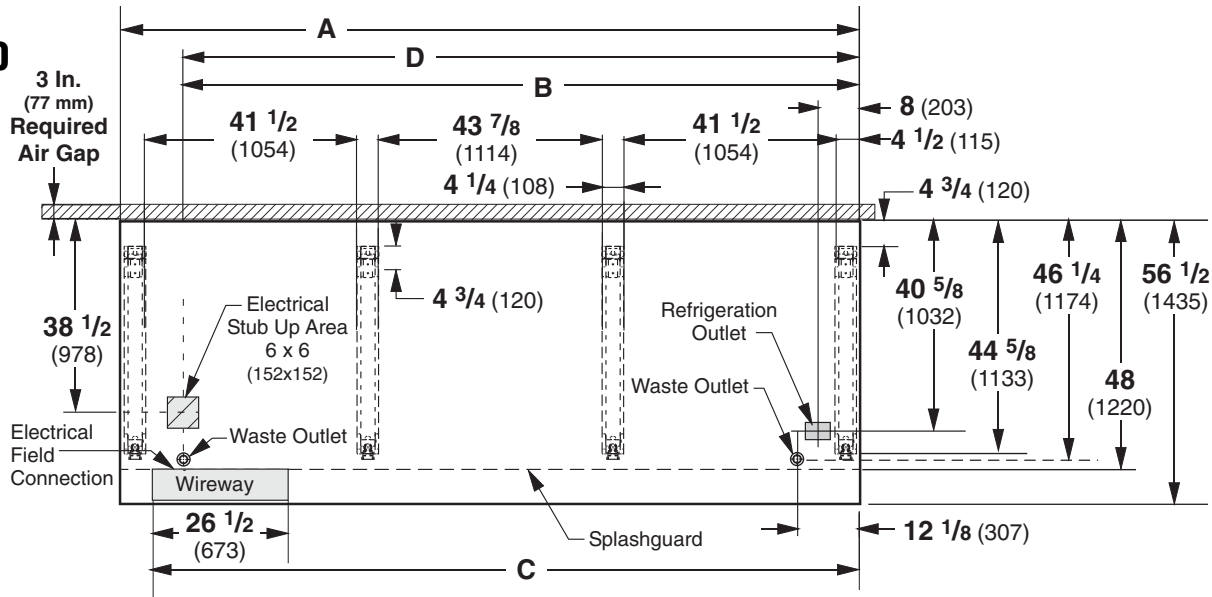
# Engineering Plan Views

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

Convertible  
10-2005

Dimensions shown as inches and (mm).

**C4XR0**



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

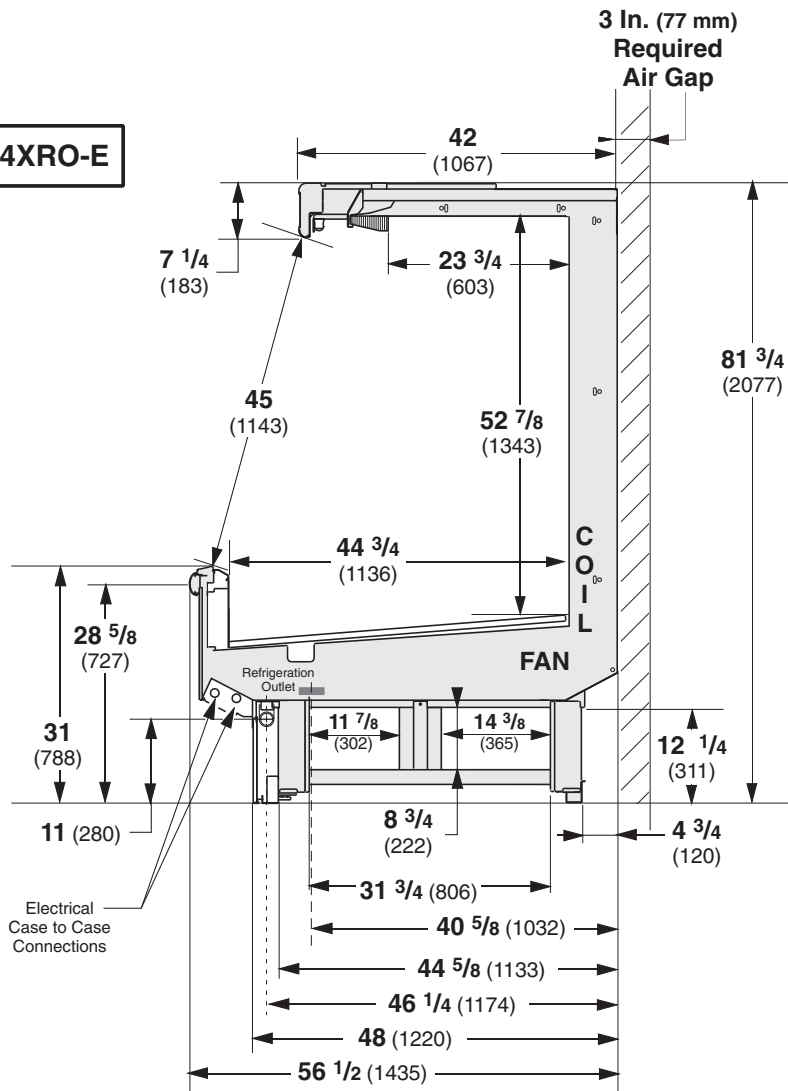
FRONT

	8 ft	10 ft	12 ft
<b>General</b>			
<b>(A)</b> 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 (includes bumper)	96 3/8 (2448)	120 3/8 (3058)	144 1/2 (3670)
Back of case to front of splashguard	56 1/2 (1435)	56 1/2 (1435)	56 1/2 (1435)
Back of case to O/S edge of front leg	48 (1220)	48 (1220)	48 (1220)
Distance between edges of external legs and center legs	44 5/8 (1133)	44 5/8 (1133)	44 5/8 (1133)
Distance between edges of center legs	41 1/2 (1054)	29 1/2 (750)	41 1/2 (1054)
Distance between front legs and splashguard	NA	43 7/8 (1114)	43 7/8 (1114)
	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)
<b>Electrical Service</b> (Electrical Field Wiring connection point)			
<b>(B)</b> RH End of case to center of stub up area Back of case to center of stub up area Length of electrical wireway	84 1/4 (2140)	108 1/4 (2750)	132 3/8 (3363)
	38 1/2 (978)	38 1/2 (978)	38 1/2 (978)
	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)
<b>(C)</b> RH End of case to LH end of wireway	90 1/8 (2289)	114 1/4 (2092)	138 1/4 (3511)
<b>Waste Outlets</b> (One each end)			
<b>(D)</b> RH End of case to the center of LH waste outlet RH End of case to the center of RH waste outlet Back O/S of case to center of waste outlets Schedule 40 PVC drip pipe	84 1/4 (2140)	108 1/4 (2750)	132 3/8 (3363)
	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)
	46 1/4 (1174)	46 1/4 (1174)	46 1/4 (1174)
	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
<b>Refrigeration Outlet</b>			
Back of case to center of refrigeration outlet	40 5/8 (1032)	40 5/8 (1032)	40 5/8 (1032)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)	8 (203)

Multi-deck, 4 Display Levels

Dimensions shown as inches and (mm).

**C4XRO-E**



Electrical Case to Case Connections

**Impact Excel C4XRO-E**  
**Produce Only**

**REFRIGERATION DATA**

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

C4XRO-E	Produce
Discharge Air (°F)	31
Evaporator (°F)	24
Unit Sizing (°F)	22

*Btu/hr/ft — Unlit Shelves*

C4XRO-E <sup>‡‡</sup>	Parallel	Conventional
UNLIT	1540	1640

<sup>‡</sup> Optional energy efficient motors reduce the refrigeration load by 55 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**

	C4XRO-E
Frequency Hr	6
Defrost Water (lb/ft/day)	8

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

OFFTIME	C4XRO-E
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*	C4XRO-E
	Produce
	17°F / 7°F

**Indoor Unit Only, Pressure Defrost**

**Termination\*** 48°F

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

Estimated Charge **	C4XRO-E	
8 ft	3.2 lb	51 oz 1.5 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.

**NSF Certification**

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

# Impact *Excel* C4XRO-E

## Produce Only

### Electrical Data

			8 ft	10 ft	12 ft			
<b>Number of Fans—12W</b>			<b>4</b>	<b>2</b>	<b>6</b>			
<b>Number of Fans—7W</b>			<b>—</b>	<b>4</b>	<b>—</b>			
			<b>Amperes</b>			<b>Watts</b>		
<b>Evaporator Fan</b>	<b>8 ft</b>	<b>10 ft</b>	<b>12 ft</b>	<b>8 ft</b>	<b>10 ft</b>	<b>12 ft</b>		
120V 60Hz Standard	2.60	3.30	3.90	200	256	300		
120V 50Hz Standard	3.00	3.70	4.50	228	282	342		
230V 60Hz Export	1.32	1.66	1.98	200	256	300		
230V 50Hz Export	1.52	1.88	2.28	228	282	342		
120V 60Hz Energy Efficient	1.20	1.36	1.80	72	92	108		
230V 60Hz Energy Efficient	0.60	0.70	0.90	72	92	108		
<b>Minimum Circuit Ampacity</b>								
120V 60Hz Standard	2.80	3.50	4.10					
120V 50Hz Standard	3.20	3.90	4.70					
230V 60Hz Export	1.52	1.86	2.18					
230V 50Hz Export	1.72	2.08	2.48					
120V 60Hz Energy Efficient	1.40	1.56	2.00					
230V 60Hz Energy Efficient	0.80	1.30	1.10					
<b>Maximum Over Current Protection 120V</b>			<b>20</b>	<b>20</b>	<b>20</b>			
Maximum Over Current Protection 230V			15	15	15			
<b>Standard Lighting</b>								
1 Row Canopy			0.51	0.77	0.77	59	85	85
<b>Optional Lighting</b>								
Additional 1 Row Canopy			0.51	0.77	0.77	59	85	85
Additional 2 Row Canopy			1.02	1.54	1.54	118	170	170
Additional 3 Row Canopy			1.53	2.31	2.31	177	255	255
1 Row Rail Light			0.51	0.77	0.77	59	85	85
3 Rows of Shelves			1.53	2.31	2.31	177	255	255
4 Rows of Shelves			2.04	3.08	3.08	236	340	340
5 Rows of Shelves			2.55	3.85	3.85	295	425	425
<b>EcoShine Multi-deck Canopy Normal (CRI) — 120VAC, 50/60Hz</b>								
2 Row Canopy (Front & Rear)			0.55	0.68	0.82	66	82	98
3 Rows of Shelves			0.58	0.73	0.88	70	87	105
4 Rows of Shelves			0.78	0.97	1.17	93	116	140
5 Rows of Shelves			0.97	1.21	1.45	116	145	174
<b>EcoShine Multi-deck Canopy High CRI — 120VAC, 50/60Hz</b>								
2 Row Canopy (Front & Rear)			0.63	0.78	0.93	75	93	112
3 Rows of Shelves			0.70	0.88	1.05	84	105	126
4 Rows of Shelves			0.93	1.17	1.40	112	140	168
5 Rows of Shelves			1.17	1.46	1.75	140	175	210
<b>Always*Bright Multi-deck Canopy — 120VAC, 50/60Hz</b>								
2 Row Canopy (Front & Rear)			0.71	0.95	1.08	85	114	130
3 Rows of Shelves			0.74	0.90	1.11	89	108	133
4 Rows of Shelves			0.93	1.15	1.40	112	138	168
5 Rows of Shelves			1.13	1.38	1.69	136	166	203

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)	9.63 ft <sup>3</sup> /ft (0.90 m <sup>3</sup> /m)
<i>AHRI Total Display Area</i> <sup>2</sup> (Sq Ft/Ft)	4.18 ft <sup>2</sup> /ft (1.27 m <sup>2</sup> /m)
<i>Shelf Area</i> <sup>3</sup> (Sq Ft/Ft)	9.27 ft <sup>2</sup> /ft (2.83 m <sup>2</sup> /m)

<sup>1</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>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 (3) rows of 22-inch shelves.

**ESTIMATED SHIPPING WEIGHT <sup>4</sup>**

Case	8 ft	10 ft	12 ft	Solid End
				(each)
<b>lb (kg)</b>	1000 (454)	1100 (499)	1200 (544)	100 (45)

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

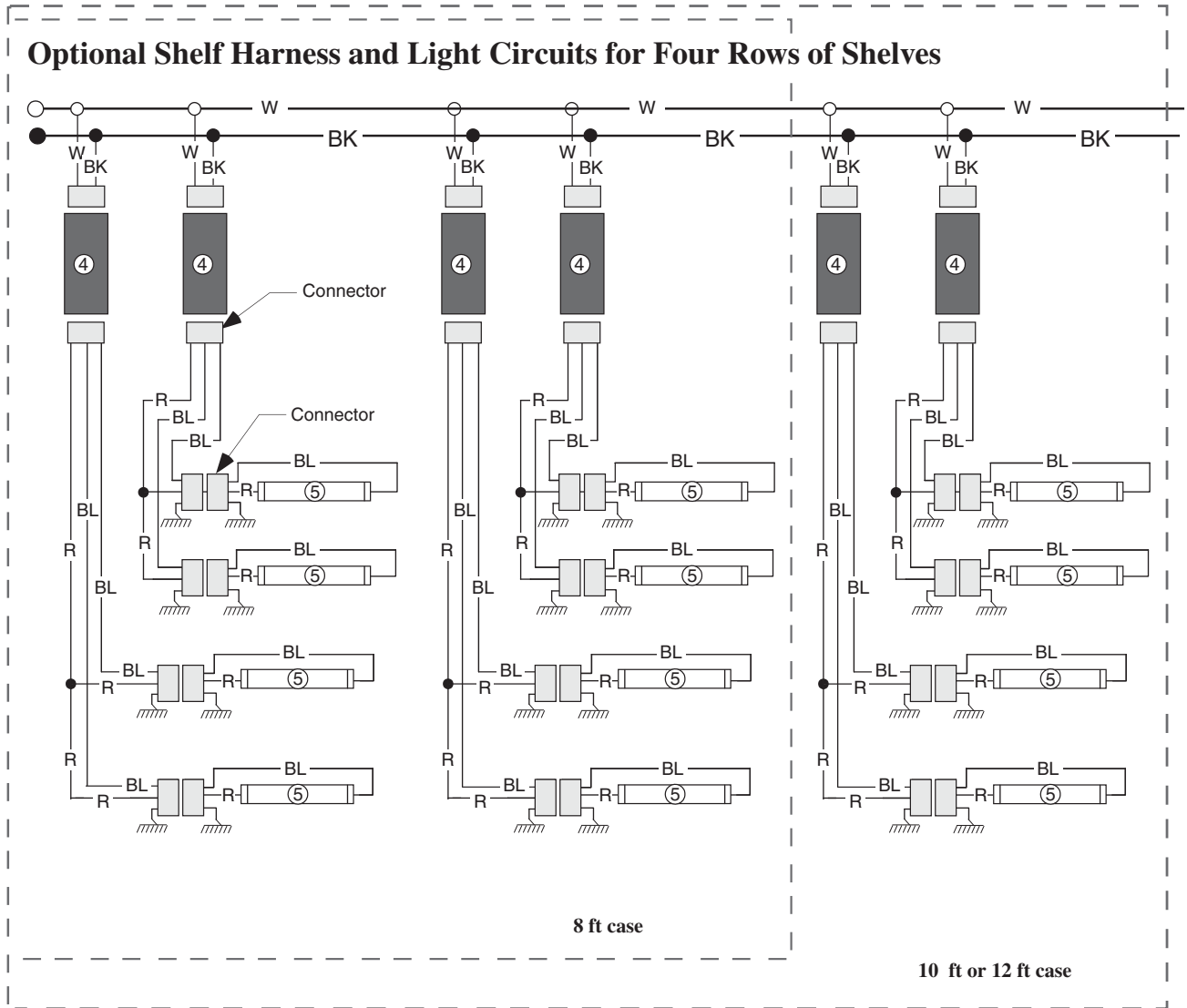
**PARTS LIST (Continued from Page 1)**

Item	Part #	Description	Item	Part #	Description
<b>LED FIXTURES AND POWER SUPPLY</b>					
F.	0501213	Power Supply (EP.4481861) (6)	G.	(CONTINUED)	<b>EcoShine LED Canopy Fixture</b>
G.		<b>EcoShine LED Canopy Fixture</b> (7)	4441713	Rear 36-inch	<b>2900K</b> HCRI
	4441720	Front 48-inch <b>2900K</b> HCRI	4441715	Rear 36-inch	<b>3500K</b> HCRI
	4441722	Front 48-inch <b>3500K</b> HCRI	4441717	Rear 36-inch	<b>3500K</b>
	4441724	Front 48-inch <b>3500K</b>	4441719	Rear 36-inch	<b>4100K</b>
	4441726	Front 48-inch <b>4100K</b>	H.		<b>EcoShine LED Shelf Fixture</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.



# Optional Shelf Lighting Fluorescent Fixtures



## WARNING

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

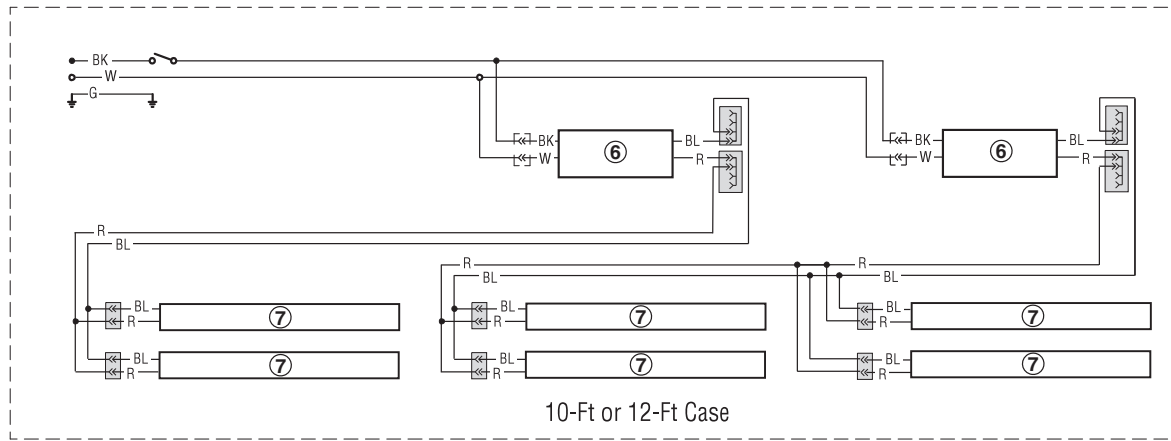
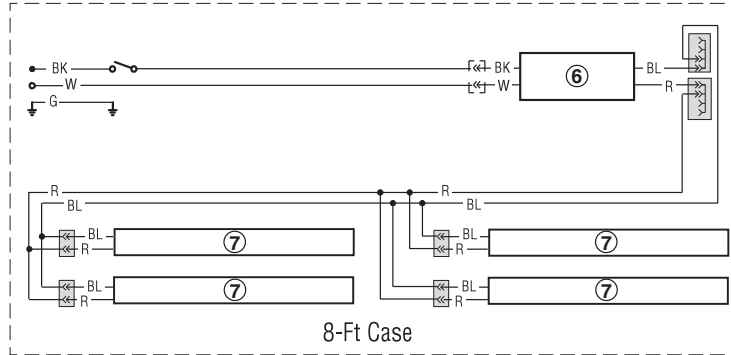
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red Y = Yellow G = Green BL = Blue 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

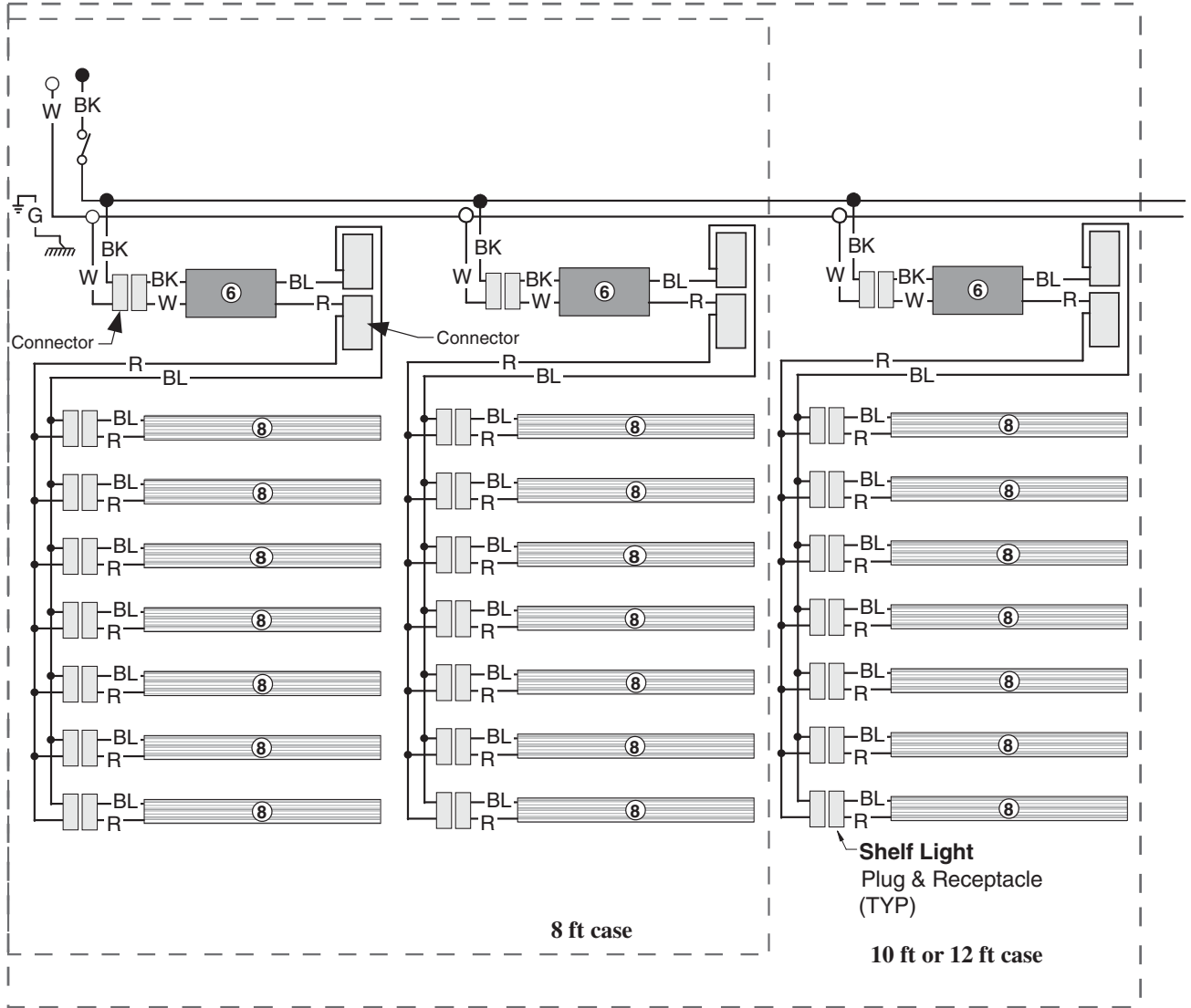
R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

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