

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

Note: Revision A is original issue



# Engineering Plan Views

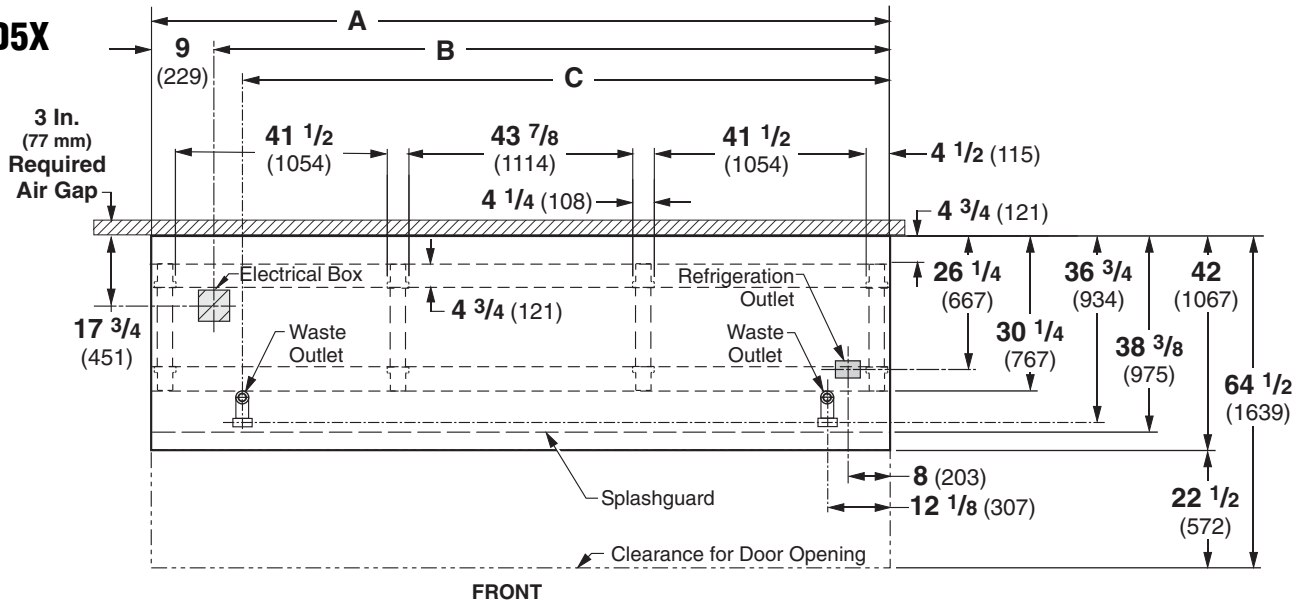
PHYSICAL DATA	
Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	7/8

## Dairy & Delicatessen

Dimensions shown as in. and (mm).

07-2009

**DD5X**

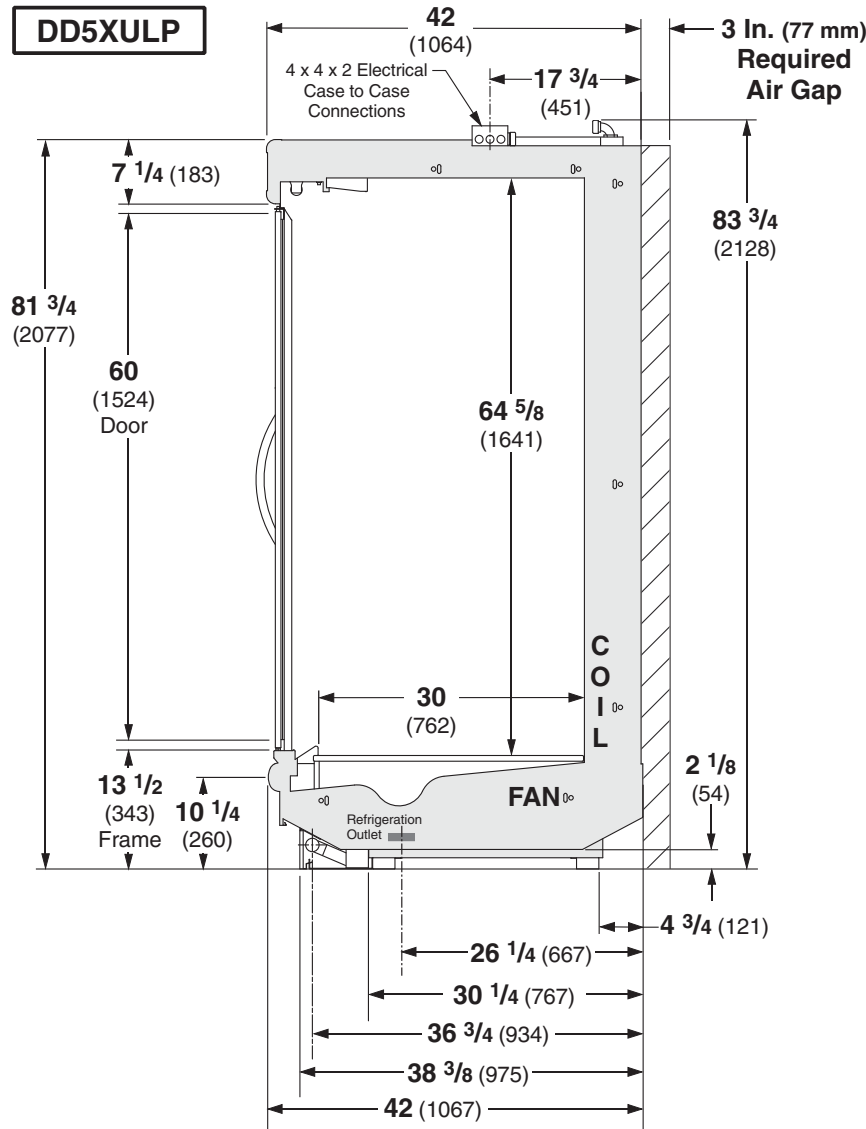


**Note: ALL FIELD WIRING CONNECTION POINTS ARE ABOVE THE CASE.**  
Case to case connections are made in the electrical box at the top of the case.

	4 ft	6 ft	8 ft	12 ft
<b>General</b>				
<b>(A)</b> Case Length (without ends or partitions) <i>(Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)</i>	48 3/8 (1229)	72 3/8 (1838)	96 3/8 (2448)	144 1/2 (3670)
Maximum O/S dimension of case back to front <i>(includes bumper)</i>	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)
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)
Distance between edges of external legs and center legs	NA	29 1/2 (750)	41 1/2 (1054)	41 1/2 (1054)
Distance between edges of center legs	NA	NA	NA	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)
<b>Electrical Service</b> <input checked="" type="checkbox"/> <i>(Electrical Field Wiring connection point located on top of case)</i>				
<b>(B)</b> RH End of case to center of stub up area	36 1/4 (921)	60 1/4 (1530)	84 1/4 (2140)	132 3/8 (3363)
Back of case to center of stub up area	24 (612)	24 (612)	24 (612)	24 (612)
Length of electrical wireway <input type="checkbox"/> Wireway	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)
<b>(C)</b> RH End of case to LH end of wireway	42 1/8 (1070)	66 1/8 (1680)	90 1/8 (2289)	138 1/4 (3511)
<b>Waste Outlets</b> <i>(One each end)</i> <input checked="" type="checkbox"/>				
<b>(D)</b> RH End of case to the center of LH waste outlet	36 1/4 (921)	60 1/4 (1530)	84 1/4 (2140)	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)
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)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
<b>Refrigeration Outlet</b> <input type="checkbox"/>				
Back of case to center of refrigeration outlet	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)

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

Dimensions shown as in. and (mm).



**ALL FIELD WIRING CONNECTION POINTS ARE ABOVE THE CASE.**

**NSF Certification**

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

**REFRIGERATION DATA**

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

DD5X-ULP	UNLIT	LIT
Discharge Air °F	39	39
Evaporator °F	34	32
Unit Sizing °F	32	30

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

DD5X-ULP	Parallel	Conventional
UNLIT	295	300

\* Peg Shelves are not recommended.

<sup>‡</sup>Optional energy efficient motors reduce the refrigeration load by 43 Btu/hr/ft (4 ft, 8 ft, and 12 ft models) and 36 Btu/hr/ft (6 ft model).  
<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	24
Defrost Water (lb/ft/day)	1.0
(± 15% based on case configuration and product loading).	

OFFTIME	DD5X-ULP
Time (minutes)	25

**ELECTRIC OR GAS** Not Recommended

**CONVENTIONAL CONTROLS**

Low Pressure Backup Control	
CI/CO**	DD5X-ULP
	25°F / 15°F

**Indoor Unit Only, Pressure Defrost**

**Termination\*\*** 48°F

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

**PHYSICAL DATA**

Estimated Charge ***	DD5X-ULP
4 ft	1.9 lb 30 oz 0.9 kg
6 ft	2.8 lb 45 oz 1.3 kg
8 ft	3.7 lb 59 oz 1.7 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 half a pound.

# Impact *Excel* DD5X-ULP

## Dairy & Delicatessen

### Electrical Data

	4 ft	6 ft	8 ft	12 ft				
Number of Fans – 12W	1	—	2	3				
Number of Fans – 7W	—	2	—	—				
	Amperes				Watts			
	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
<b>Evaporator Fans</b>								
120V 60Hz Standard	0.65	1.00	1.30	1.95	50	78	100	150
120V 50Hz Standard	0.75	1.10	1.50	2.25	57	84	114	171
230V 60Hz Export	0.33	0.50	0.66	0.99	50	78	100	150
230V 50Hz Export	0.38	0.56	0.76	1.14	57	84	114	171
120V 60Hz Energy Efficient	0.30	0.38	0.60	0.90	18	28	36	54
230V 60Hz Energy Efficient	0.15	0.20	0.30	0.45	18	28	36	54
<b>Minimum Circuit Ampacity</b>								
120V 60Hz Standard	0.85	1.20	1.50	2.15				
120V 50Hz Standard	0.95	1.30	1.70	2.45				
230V 60Hz Export	0.53	0.70	0.86	1.19				
230V 50Hz Export	0.58	0.76	0.96	1.34				
120V 60Hz Energy Efficient	0.50	0.58	0.80	1.10				
230V 60Hz Energy Efficient	0.35	0.40	0.50	0.65				
<b>Maximum Over Current Protection 120V</b>								
Maximum Over Current Protection 230V	20	20	20	20				
<b>Standard Lighting (T-8 fluorescent)</b>								
1 Row Canopy	0.26	0.51	0.51	0.77	30	59	59	85
<b>Optional Lighting (T-8 fluorescent)</b>								
Additional 1 Row Canopy	0.26	0.51	0.51	0.77	30	59	59	85
Additional 2 Row Canopy	0.51	1.02	1.02	1.54	59	118	118	170
Additional 3 Row Canopy	0.77	1.53	1.53	2.31	89	177	177	255
5 Rows of Shelves	1.28	2.55	2.55	3.85	148	295	295	425
6 Rows of Shelves	1.53	3.06	3.06	4.62	177	354	354	510
7 Rows of Shelves	1.79	3.57	3.57	5.39	207	413	413	595
<b>Optional LED Canopy Lighting — EcoShine CRI — 120VAC, 50/60Hz</b>								
2 Row Canopy	0.28	0.41	0.55	0.82	33	49	66	98
1 Rows of Shelves	0.10	0.15	0.20	0.29	12	18	24	35
4 Rows of Shelves	0.39	0.58	0.78	1.17	47	70	93	140
5 Rows of Shelves	0.48	0.73	0.97	1.45	58	87	116	174
6 Rows of Shelves	0.58	0.88	1.17	1.74	70	105	140	209
<b>Optional LED Canopy Lighting — EcoShine High CRI — 120VAC, 50/60Hz</b>								
2 Row Canopy	0.32	0.47	0.63	0.93	38	56	75	112
1 Rows of Shelves	0.12	0.18	0.23	0.35	14	21	28	42
4 Rows of Shelves	0.47	0.70	0.93	1.40	56	84	112	168
5 Rows of Shelves	0.58	0.88	1.17	1.75	70	105	140	210
6 Rows of Shelves	0.70	1.05	1.40	2.10	84	126	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)	9.89 ft <sup>2</sup> /ft (3.02 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 (4) rows of 22-inch shelves.

<b>ESTIMATED SHIPPING WEIGHT <sup>4</sup></b>					
Case					Solid End
	<i>4 ft</i>	<i>6 ft</i>	<i>8 ft</i>	<i>12 ft</i>	(each)
<b>lb (kg)</b>	860 (390)	1070 (485)	1310 (594)	1560 (708)	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) (5)			G.	<b>(CONTINUED) EcoShine LED Canopy Fixture</b>	
G.	<b>EcoShine LED Canopy Fixture (6)</b>			4441713	Rear	36-inch <b>2900K</b> HCRI	
	4441720	Front	48-inch	<b>2900K</b>	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 (7)</b>	
	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>

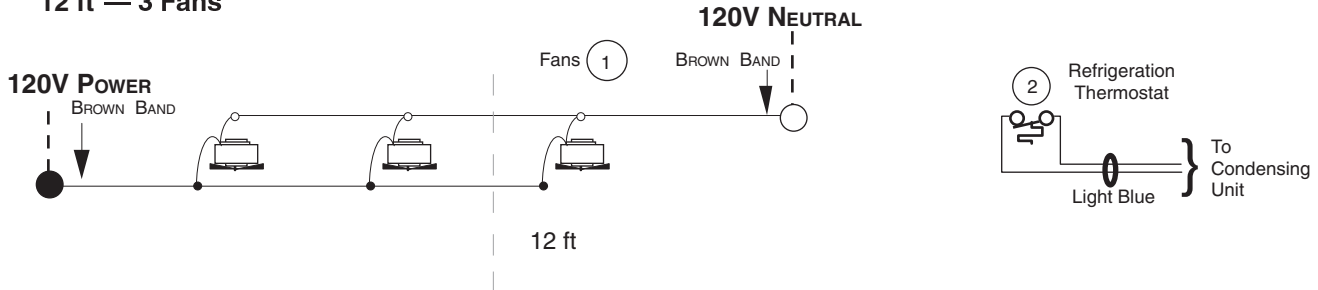
Note: Always\*Bright lamps will be replaced with the latest generation of EcoShine lamps.

# Fan Wiring

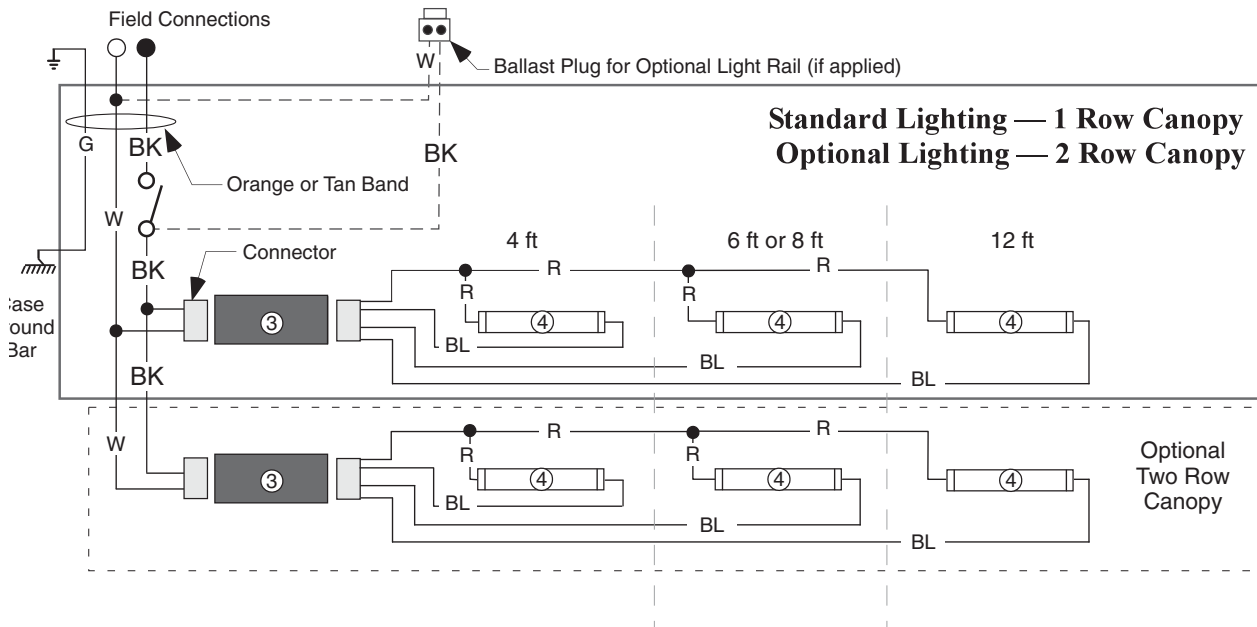
## Offtime Defrost

### 1, 2 & 3 Fans

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



# Fluorescent Canopy Light Circuits



### WARNING

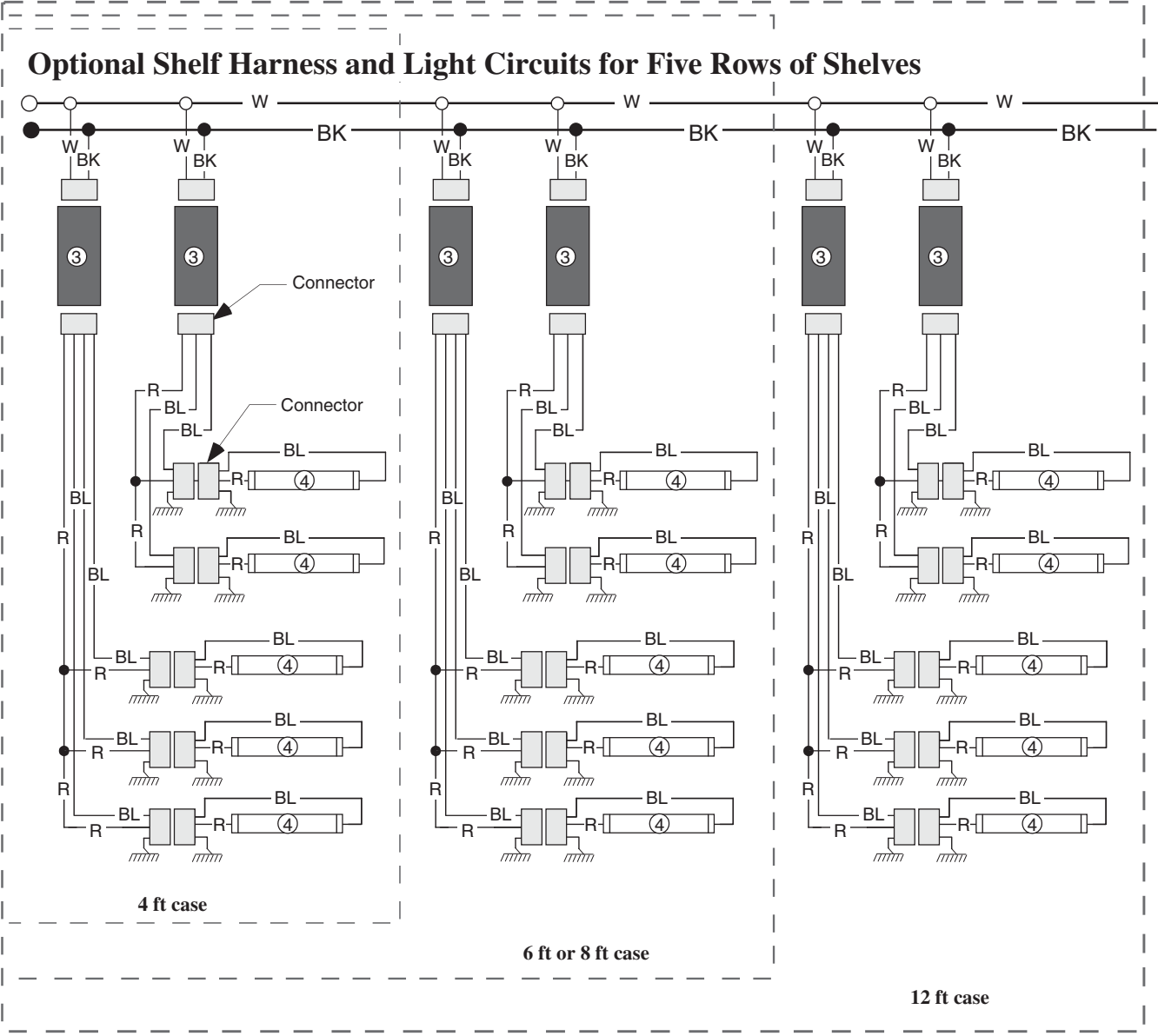
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

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

**Optional Shelf Lighting  
Fluorescent Fixtures**



**WARNING**

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

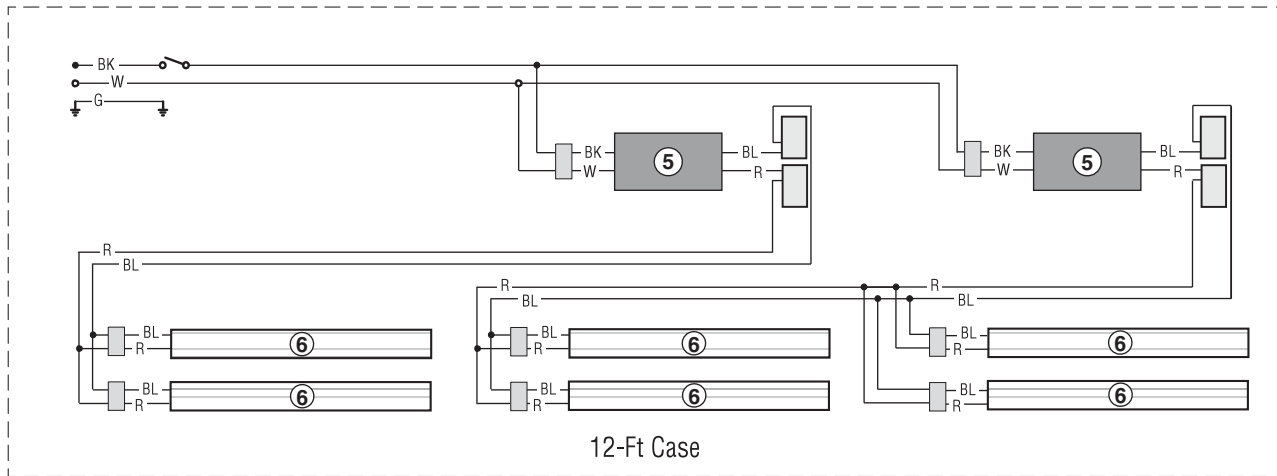
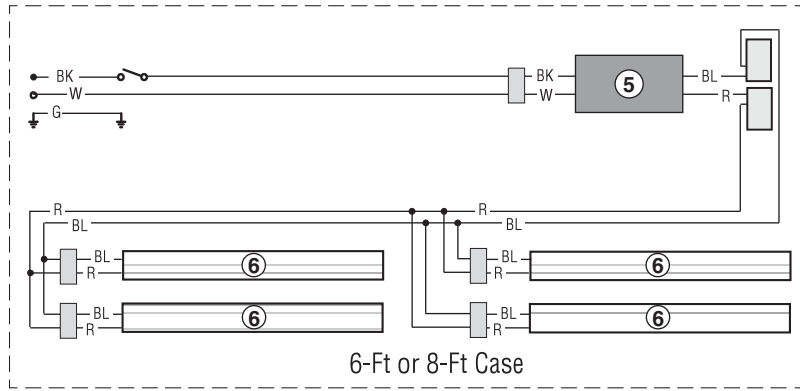
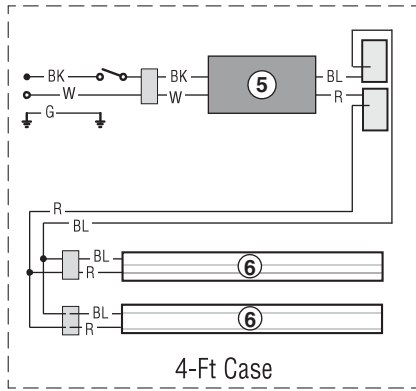
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# Optional Canopy Lighting LED Fixtures

## Standard LED Canopy Lighting — 2 Row Canopy



### WARNING

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

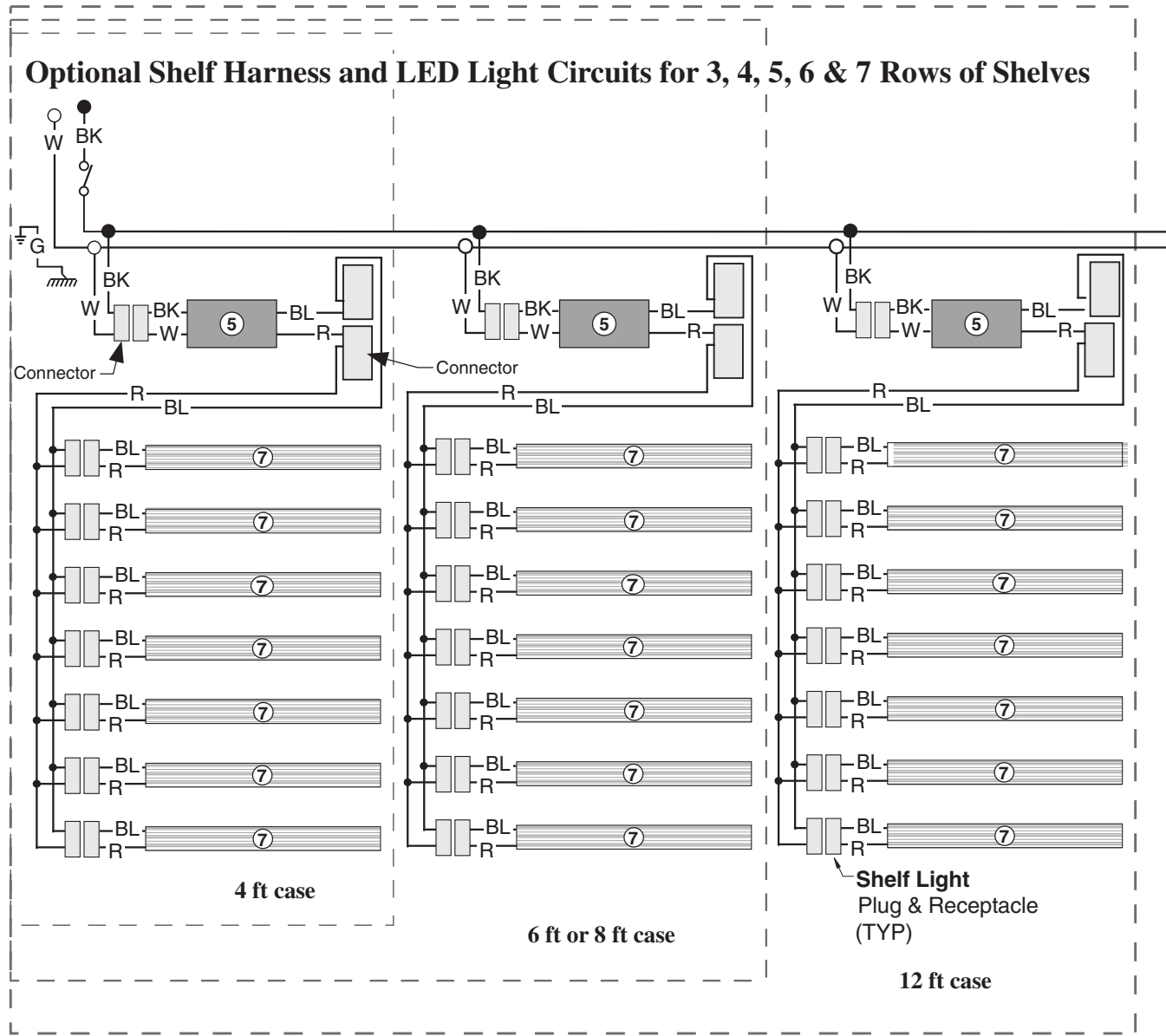
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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



**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 |           |