

HUSSMANN[®] Excel

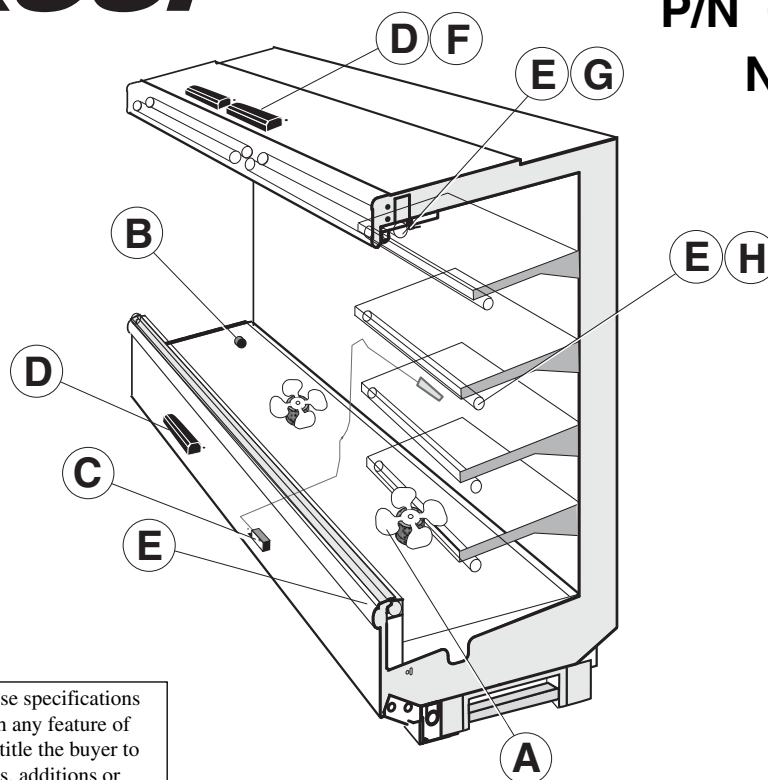


D5X-E

Technical Data Sheet
P/N 0463856_E

NSF[®] Certified

March 2010



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 #
FAN ASSEMBLIES				THERMOSTATS			
8 Ft & 12 Ft				B.	0411744	Standard Non-adjustable Defrost Thermostat (CT.0411744)	(2)
A.	12W Standard	Fan Assembly	(1)	C.	Optional Adjustable Refrigeration Thermostat		(3)
	0047000	Fan Motor, Evaporator (MO.4410103)		LAMPS AND BALLASTS			
	0461805	Fan Blade (FB.4780446)		D.	Ballast, Electronic		(4)
	12W Energy Efficient	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)	
6 Ft Only				E.	Fluorescent Lamp		(5)
A.	7W Standard	Fan Assembly	(1)	<i>Replace with like fixtures</i>			
	0058698	Fan Motor, Evaporator (MO.4410102)		LED FIXTURES AND POWER SUPPLY			
	0142780	Fan Blade (FB.0142780)		F.	0501213	Power Supply (EP.4481861)	(6)
	7W Energy Efficient	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>			

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.



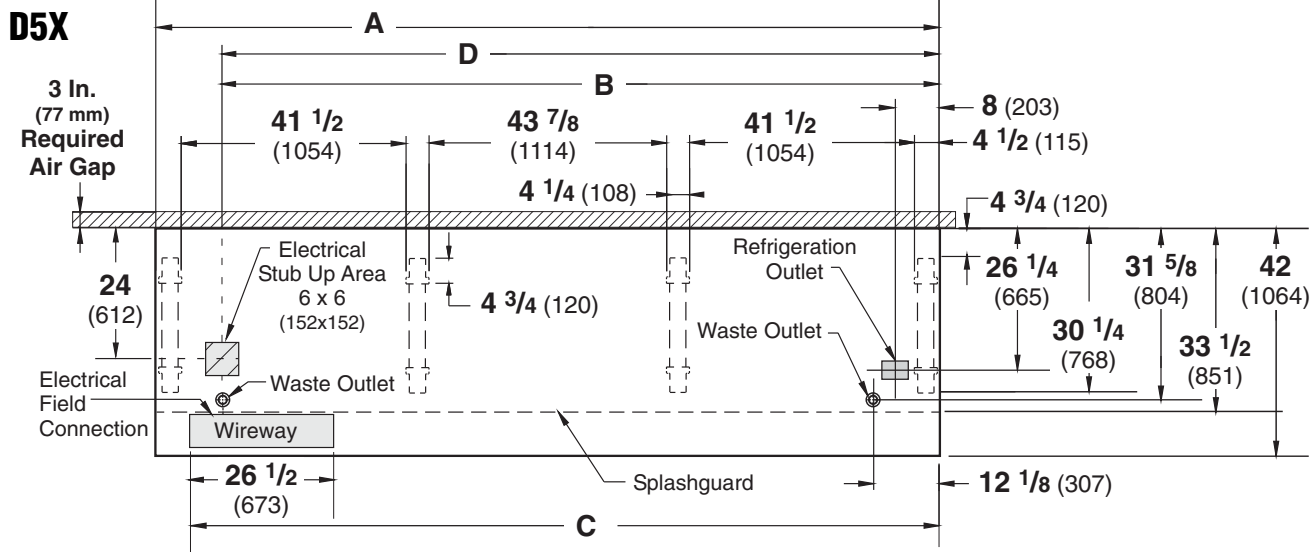
Engineering Plan Views

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

Dairy & Delicatessen





09-2004

Dimensions shown as in. and (mm).

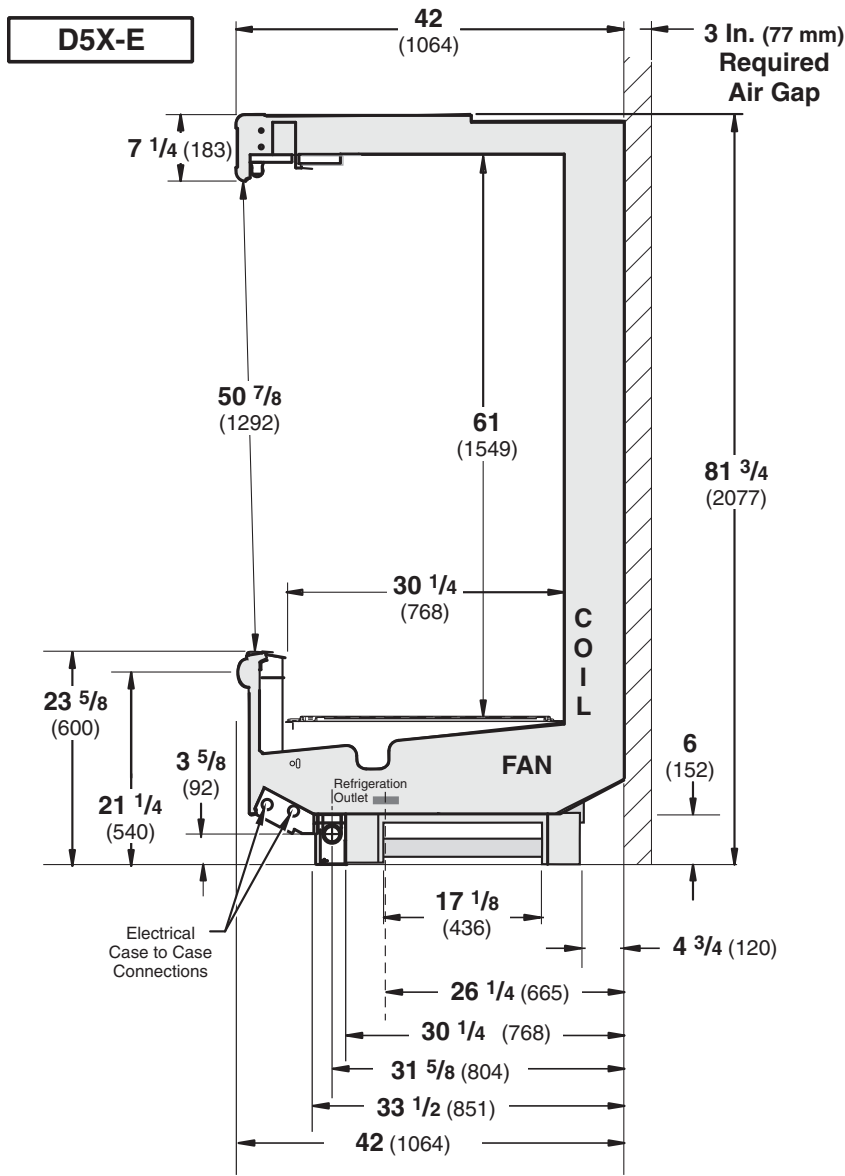


NOTE: Case-to-Case Electrical Connections are made IN FRONT OF SPLASHGUARD.

FRONT

	6 ft	8 ft	12 ft
General			
(A) Case Length (without ends or partitions) (Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.) Optional view end with bumper adds 3 3/4 in. [95 mm].	72 3/8 (1838)	96 3/8 (2448)	144 1/2 (3670)
Maximum O/S dimension of case back to front (includes bumper)	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)
Back of case to O/S edge of front leg	30 1/4 (768)	30 1/4 (768)	30 1/4 (768)
Distance between edges of external legs and center legs	29 1/2 (750)	41 1/2 (1054)	41 1/2 (1054)
Distance between edges of center legs	NA	NA	43 7/8 (1114)
Distance between front legs and splashguard	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)
Electrical Service  (Electrical Field Wiring connection point)			
(B) RH End of case to center of stub up area	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)
Length of electrical wireway 	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)
(C) RH End of case to LH end of wireway	66 1/8 (1680)	90 1/8 (2289)	138 1/4 (3511)
Waste Outlets (One each end) 			
(D) RH End of case to the center of LH waste outlet	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)
Back O/S of case to center of waste outlets	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)
Refrigeration Outlet 			
Back of case to center of refrigeration outlet	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)

Dimensions shown as in. and (mm).



NSF Certification

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

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REFRIGERATION DATA

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

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

Btu/hr/ft[±] — Unlit Shelves^{‡‡}

D5X-E	Parallel	Conventional
UNLIT	1355	1440
PEG*	1475	1560

* 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	6
Defrost Water (lb/ft/day)	10.50
<small>(± 15% based on case configuration and product loading).</small>	

	D5X-E
OFFTIME	48
Temp Term °F	35
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

	D5X-E
CI/CO**	17°F / 7°F

Indoor Unit Only, Pressure Defrost

Termination** 48°F

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

	D5X-E		
Estimated Charge ***			
6 ft	1.9 lb	30 oz	0.9 kg
8 ft	2.7 lb	43 oz	1.2 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.

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Electrical Data

			6 ft	8 ft	12 ft			
Number of Fans—12W			—	2	3			
Number of Fans—7W			2	—	—			
			Amperes			Watts		
			6 ft	8 ft	12 ft	6 ft	8 ft	12 ft
Evaporator Fan								
120V	60Hz	Standard	1.00	1.30	1.95	78	100	150
120V	50Hz	Standard	1.10	1.50	2.25	84	114	171
230V	60Hz	Export	0.50	0.66	0.99	78	100	150
230V	50Hz	Export	0.56	0.76	1.14	84	114	171
120V	60Hz	Energy Efficient	0.38	0.60	0.90	28	36	54
230V	60Hz	Energy Efficient	0.20	0.30	0.45	28	36	54
Minimum Circuit Ampacity								
120V	60Hz	Standard	1.20	1.50	2.15			
120V	50Hz	Standard	1.30	1.70	2.45			
230V	60Hz	Export	0.70	0.86	1.19			
230V	50Hz	Export	0.76	0.96	1.34			
120V	60Hz	Energy Efficient	0.58	0.80	1.10			
230V	60Hz	Energy Efficient	0.40	0.50	0.65			
Maximum Over Current Protection 120V			20	20	20			
Maximum Over Current Protection 230V			15	15	15			
Standard Lighting (T-8 fluorescent)								
1 Row Canopy			0.51	0.51	0.77	59	59	85
Optional Lighting (T-8 fluorescent)								
Additional 1 Row Canopy			0.51	0.51	0.77	59	59	85
Additional 2 Row Canopy			1.02	1.02	1.54	118	118	170
Additional 3 Row Canopy			1.53	1.53	2.31	177	177	255
1 Row Rail Light			0.51	0.51	0.77	59	59	85
1 Row of Shelves			0.51	0.51	0.77	59	59	85
4 Rows of Shelves			2.04	2.04	3.08	236	236	340
5 Rows of Shelves			2.55	2.55	3.85	295	295	425
6 Rows of Shelves			3.06	3.06	4.62	354	354	510
EcoShine Multi-deck — Normal CRI—120VAC, 50/60Hz								
2 Row Canopy (Front & Rear)			0.41	0.55	0.82	49	66	98
1 Row of Shelves			0.15	0.20	0.29	18	24	35
4 Rows of Shelves			0.58	0.78	1.17	70	93	140
5 Rows of Shelves			0.73	0.97	1.45	87	116	174
6 Rows of Shelves			0.88	1.17	1.74	105	140	209
EcoShine Multi-deck — High CRI —120VAC, 50/60Hz								
2 Row Canopy (Front & Rear)			0.47	0.63	0.93	56	75	112
1 Row of Shelves			0.18	0.23	0.35	21	28	42
4 Rows of Shelves			0.70	0.93	1.40	84	112	168
5 Rows of Shelves			0.88	1.17	1.75	105	140	210
6 Rows of Shelves			1.05	1.40	2.10	126	168	252
Always*Bright Multi-deck —120VAC, 50/60Hz								
2 Row Canopy (Front & Rear)			0.55	0.71	1.08	66	85	130
1 Row of Shelves			0.19	0.23	0.38	23	28	45
4 Rows of Shelves			0.68	0.93	1.40	82	112	168
5 Rows of Shelves			0.83	1.13	1.69	99	136	203
6 Rows of Shelves			0.96	1.33	2.00	115	160	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> ¹ (Cu Ft/Ft)	9.39 ft ³ /ft (0.87 m ³ /m)
<i>AHRI Total Display Area</i> ² (Sq Ft/Ft)	4.52 ft ² /ft (1.38 m ² /m)
<i>Shelf Area</i> ³ (Sq Ft/Ft)	9.89 ft ² /ft (3.02 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.

ESTIMATED SHIPPING WEIGHT ⁴				
Case				Solid End
	<i>6 ft</i>	<i>8 ft</i>	<i>12 ft</i>	<i>(each)</i>
lb (kg)	1000 (454)	1200 (544)	1400 (635)	100 (45)

⁴ Actual weights will vary according to optional kits included.

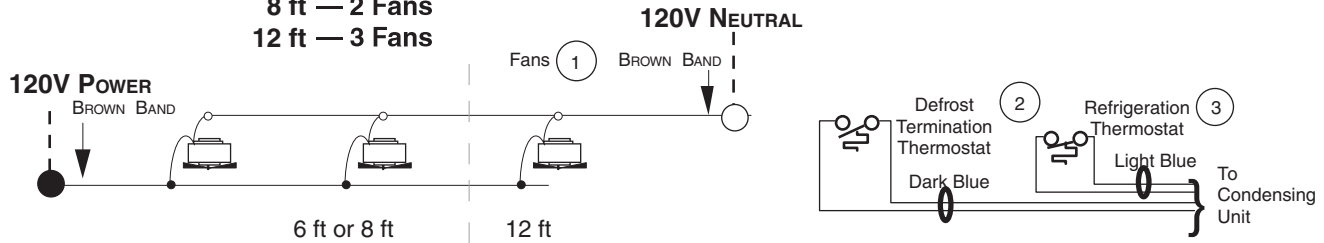
PARTS LIST (Continued from Page 1)				
Item	Part #	Description	Item	Part # Description
LED FIXTURES AND POWER SUPPLY				
F.	0501213	Power Supply (EP.4481861)	(6)	
G.	EcoShine LED Canopy Fixture		(7)	
	4441720	Front 48-inch	2900K HCRI	
	4441722	Front 48-inch	3500K HCRI	
	4441724	Front 48-inch	3500K	
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

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

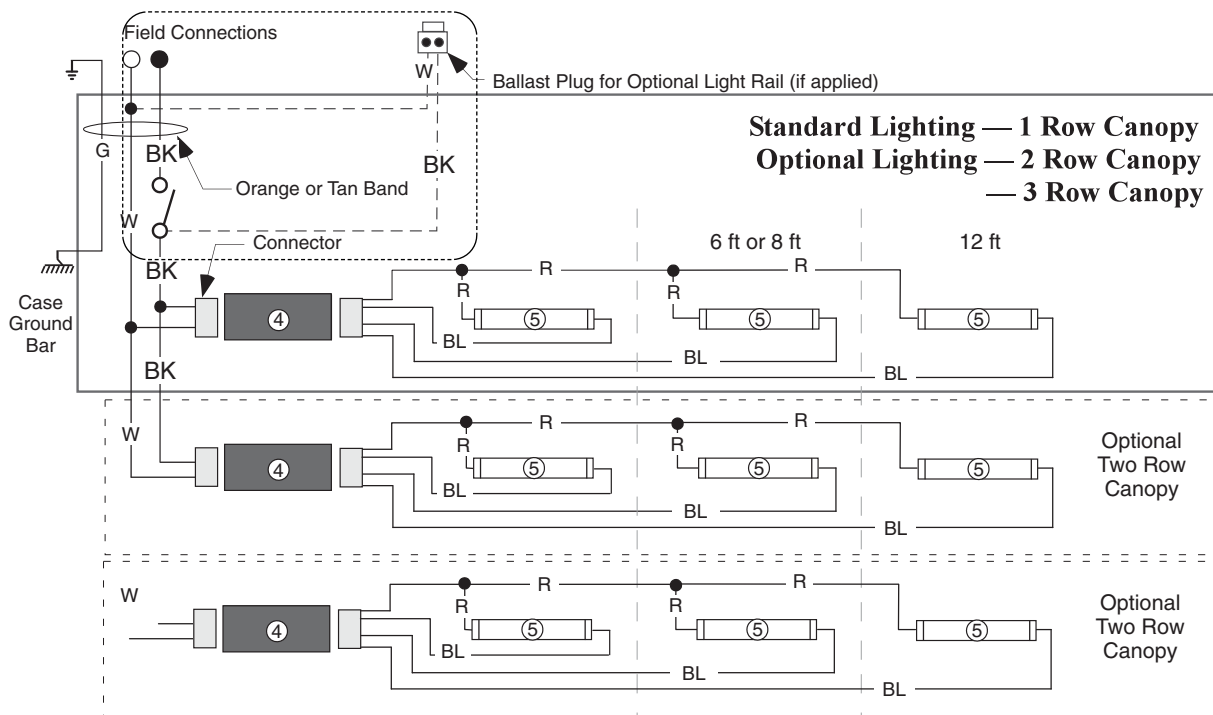
Fan Wiring Offtime Defrost

2 & 3 Fans

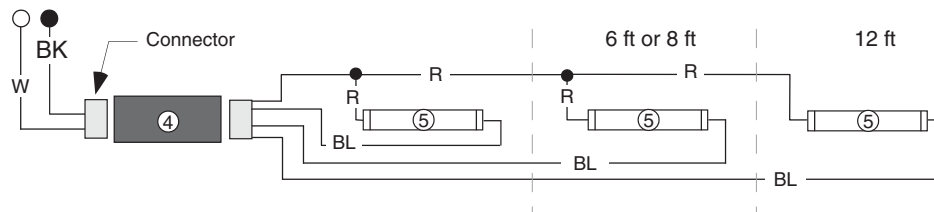
6 ft — 2 Fans
8 ft — 2 Fans
12 ft — 3 Fans



Canopy Light Circuits — Fluorescent Fixtures



Optional Lighting — 1 Row Rail



WARNING

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

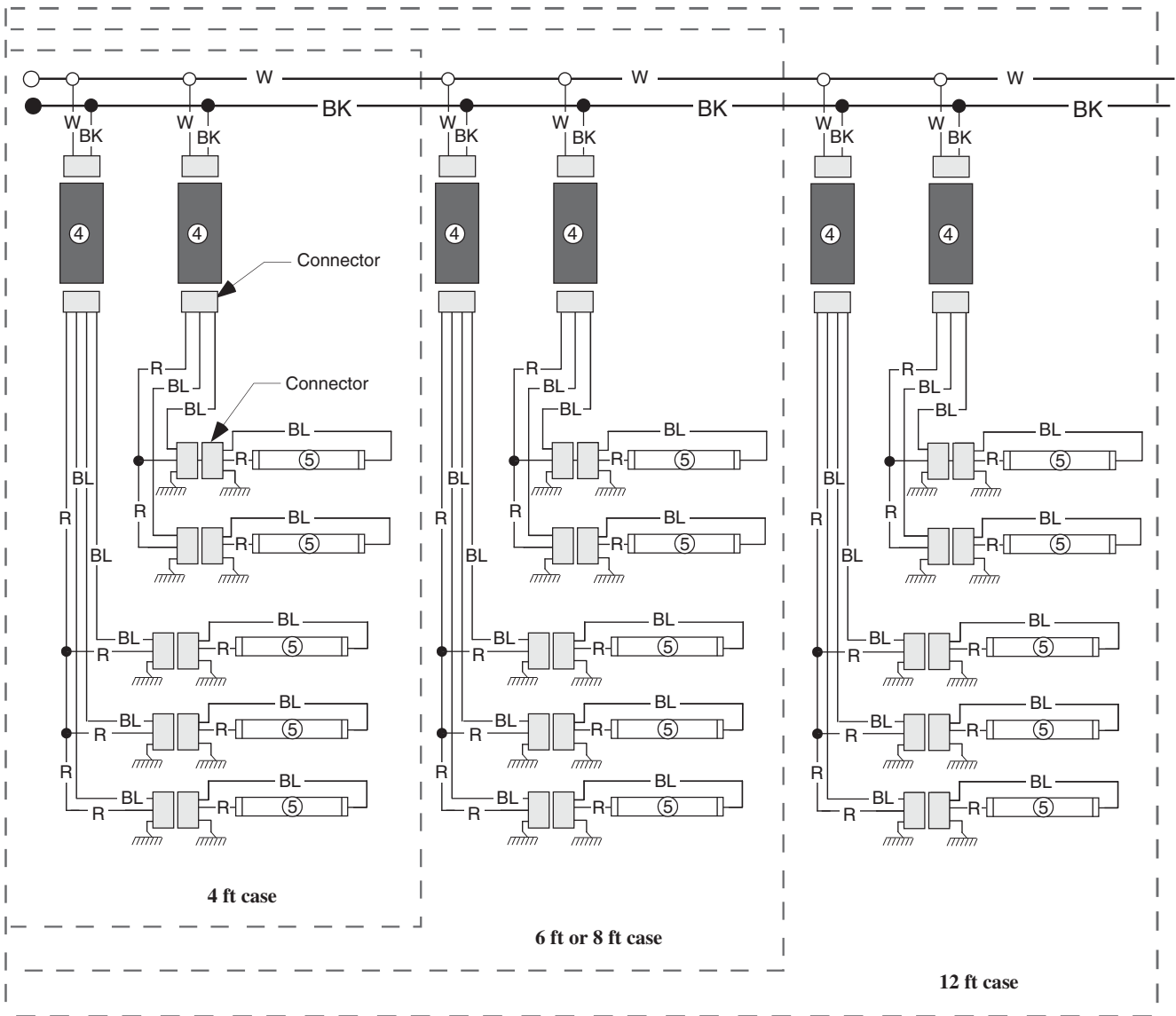
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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.

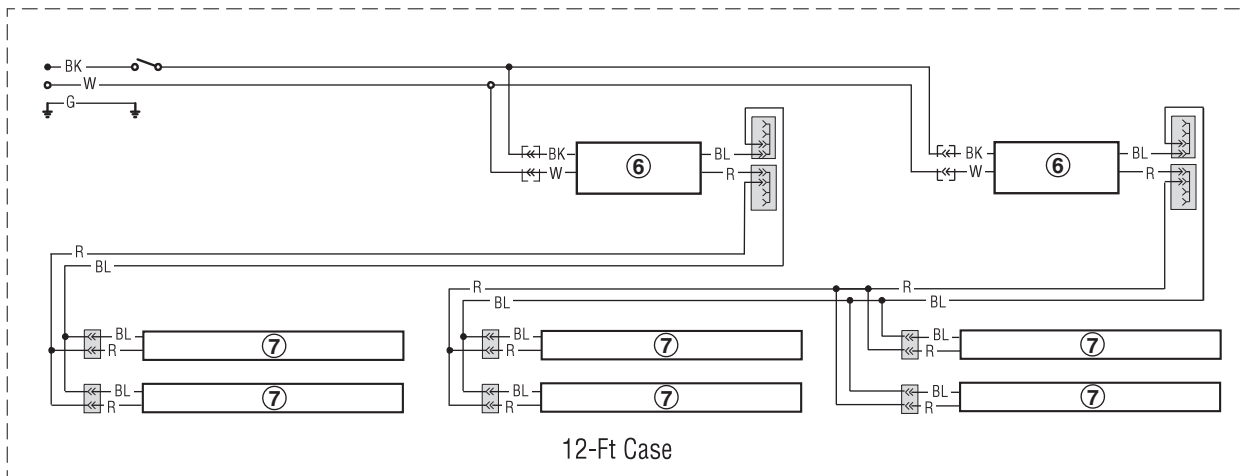
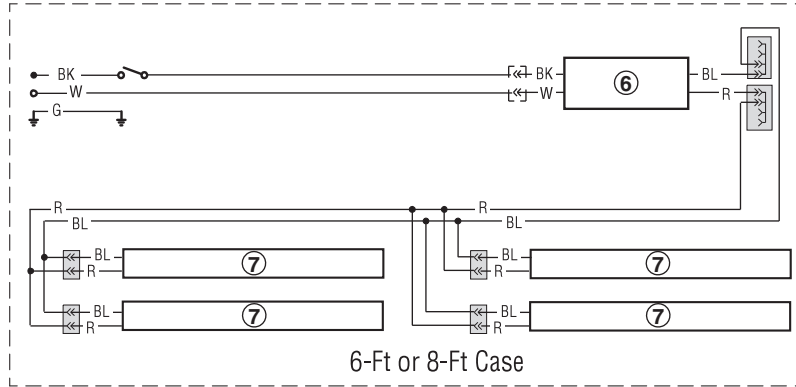
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Optional Canopy Lighting LED Fixtures

Standard LED Canopy Lighting — 2 Row Canopy



WARNING

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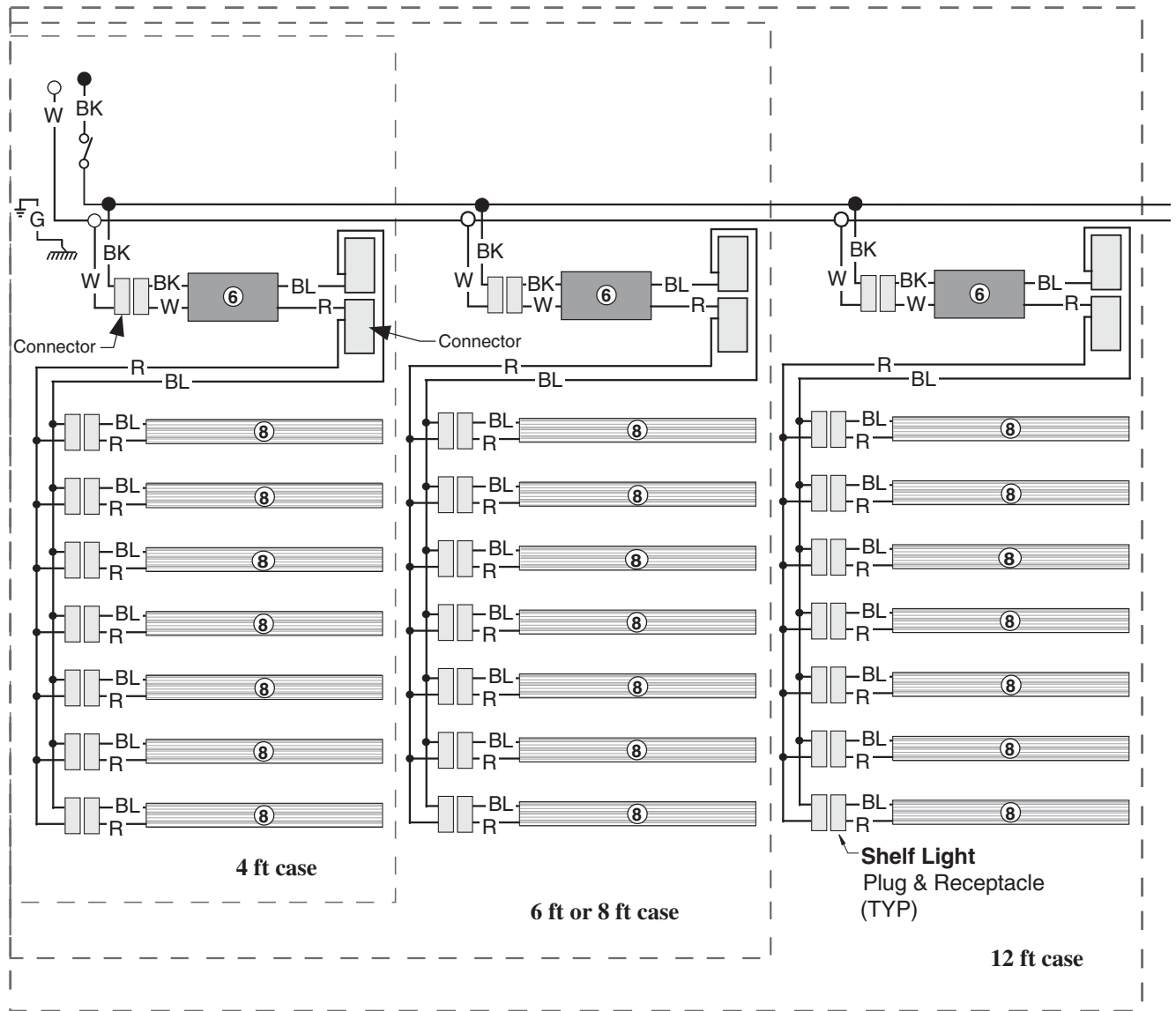
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**Optional Shelf Lighting
LED Fixtures**

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 | |