

IMPORTANT

**ONE FLOOR DRAIN IS
REQUIRED FOR EACH CASE.**

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			
4 Ft, 8 Ft & 12 Ft				B. Optional Adjustable Refrigeration Thermostat (2)			
A.	12W Standard	Fan Assembly	(1)	LAMPS AND BALLASTS			
	0047000	Fan Motor, Evaporator (MO.4410103)		C.	Ballast, Electronic		(3)
	0461805	Fan Blade (FB.4780446)		0480130	2 lamps (BA.4481676)		
	12W Energy Efficient	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>		
6 Ft Only				LED FIXTURES AND POWER SUPPLY			
A.	7W Standard	Fan Assembly	(1)	E.	0501213	Power Supply (EP.4481861)	(5)
	0058698	Fan Motor, Evaporator (MO.4410102)		F.	LED Canopy Fixture		(6)
	0142780	Fan Blade (FB.0142780)			<i>Replace with like fixtures — See Page 5.</i>		
	7W Energy Efficient	Fan Assembly	(1)	G.	LED Shelf Fixture		(7)
	0477654	Fan Motor, Evaporator (MO.4410545)			<i>Replace with like fixtures — See Page 5.</i>		
	0142780	Fan Blade (FB.0142780)					

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

Ultra Low Front Dairy & Delicatessen

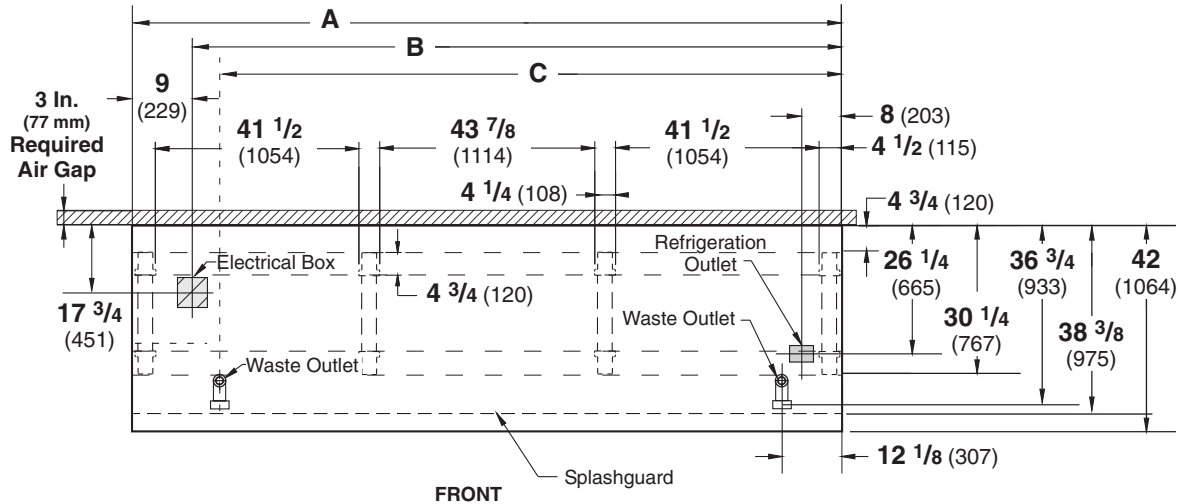
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PHYSICAL DATA




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

Dimensions shown as in. and (mm).

D6X

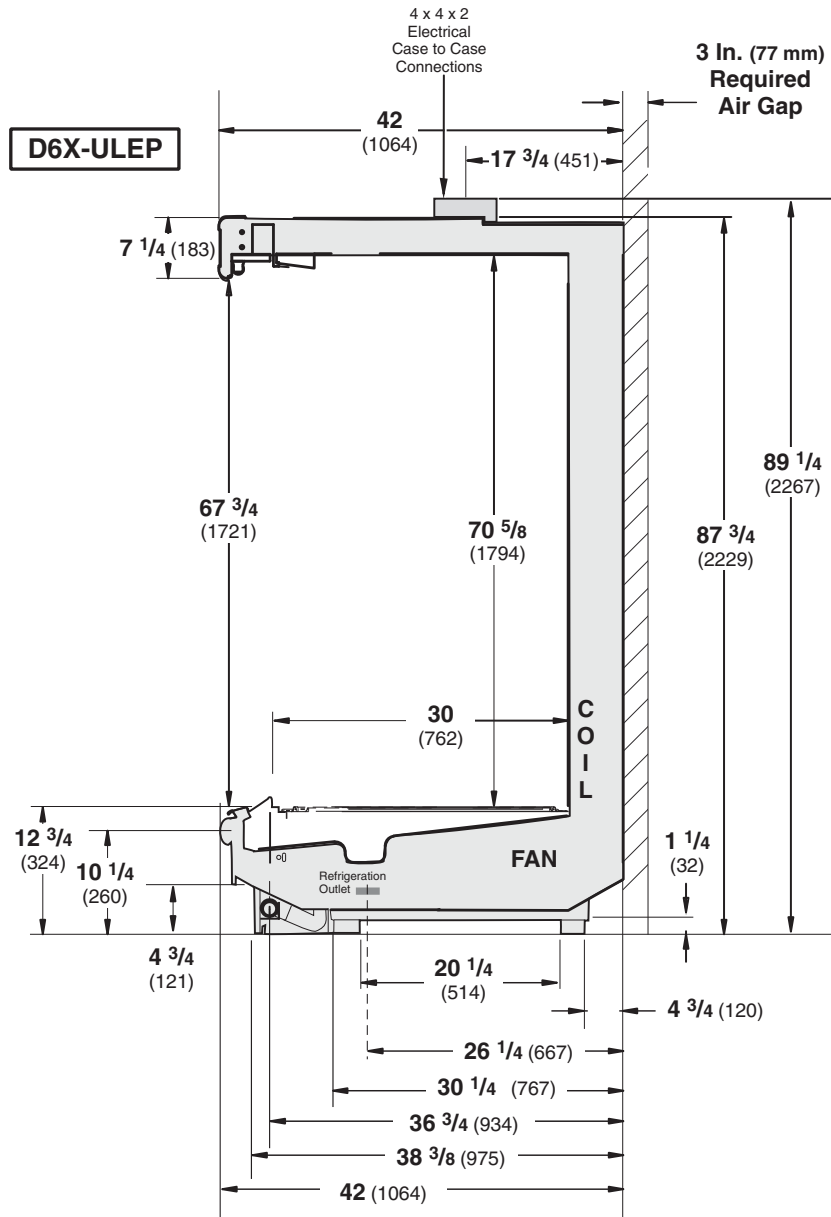


Note: ALL FIELD WIRING CONNECTION POINTS ARE ABOVE THE CASE.
Case to case connections are made in the electrical box at the top of the case.

	4 ft	6 ft	8 ft	12 ft
General				
(A) Case Length (<i>without ends or partitions</i>)	48 3/8 (1229)	72 3/8 (1838)	96 3/8 (2448)	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)
Back of case to front of splashguard	38 3/8 (975)	38 3/8 (975)	38 3/8 (975)	38 3/8 (975)
Back of case to O/S edge of front rails	30 1/4 (767)	30 1/4 (767)	30 1/4 (767)	30 1/4 (767)
Distance between edges of external rails and center rails	NA	29 1/2 (750)	41 1/2 (1054)	41 1/2 (1054)
Distance between edges of center rails	NA	NA	NA	43 7/8 (1114)
Distance between front rails and splashguard	8 (203)	8 (203)	8 (203)	8 (203)
Electrical Service  (<i>Electrical Field Wiring connection point located on top of case</i>)				
(B) RH End of case to center of 4 x 4 x 2 Electrical Box	39 3/8 (1000)	63 3/8 (1610)	87 3/8 (2219)	135 1/2 (3442)
Back of case to center of 4 x 4 x 2 Electrical Box	17 3/4 (451)	17 3/4 (451)	17 3/4 (451)	17 3/4 (451)
Waste Outlets (<i>One each end</i>) 				
(C) 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	36 3/4 (933)	36 3/4 (933)	36 3/4 (933)	36 3/4 (933)
Schedule 40 PVC drip pipe	1 1/4 (32)	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)	26 1/4 (665)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)	8 (203)	8 (203)

Multi-deck, 6 Display Levels, Ultra Low Front

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.

Impact Excel D6X-ULEP Dairy & Delicatessen

REFRIGERATION DATA

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

D6X-ULEP*	UNLIT	LIT
Discharge Air °F	32	30
Evaporator °F	28	26
Unit Sizing °F	26	24

Btu/hr/ft [‡] — Unlit Shelves ^{‡‡}	Parallel	Conventional
	D6X-ULEP*	1640

*Hussmann Peg Shelves are no longer recommended.

[‡]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)	10.5

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

OFFTIME	D6X-ULEP
Time (minutes)	25

ELECTRIC OR GAS Not Recommended

CONVENTIONAL CONTROLS

Low Pressure Backup Control	
CI/CO**	D6X-ULEP
	19°F / 9°F

Indoor Unit Only, Pressure Defrost

Termination** 48°F

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

PHYSICAL DATA

Estimated Charge **	D6X-ULEP	
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* D6X-ULEP

Dairy & Delicatessen

	4 ft	6 ft	8 ft	12 ft
Number of Fans — 12W	2	—	4	6
Number of Fans — 7W	—	4	—	—

Electrical Data

			Amperes				Watts			
			4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
Evaporator Fan										
120V	60Hz	Standard	1.30	2.00	2.60	3.90	100	156	200	300
120V	50Hz	Standard	1.50	2.20	3.00	4.50	114	168	228	342
230V	60Hz	Export	0.66	1.00	1.32	1.98	100	156	200	300
230V	50Hz	Export	0.76	1.12	1.52	2.28	114	168	228	342
120V	60Hz	Energy Efficient	0.60	0.76	1.20	1.80	36	56	72	108
230V	60Hz	Energy Efficient	0.30	0.40	0.60	0.90	36	56	72	108

Minimum Circuit Ampacity

120V	60Hz	Standard	1.50	2.20	2.80	4.10
120V	50Hz	Standard	1.70	2.40	3.20	4.70
230V	60Hz	Export	0.86	1.20	1.52	2.18
230V	50Hz	Export	0.96	1.32	1.72	2.48
120V	60Hz	Energy Efficient	0.80	0.96	1.40	2.00
230V	60Hz	Energy Efficient	0.50	0.60	0.80	1.10

Maximum Over Current Protection 120V

Maximum Over Current Protection 120V	20	20	20	20
Maximum Over Current Protection 230V	15	15	15	15

Standard Lighting (T-8 fluorescent)

1 Row Canopy	0.26	0.51	0.51	0.77	30	59	59	85
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Optional Lighting (T-8 fluorescent)

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
1 Row Rail Light	0.26	0.51	0.51	0.77	30	59	59	85
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

EcoShine Multi-deck — Normal CRI—120VAC, 50/60Hz

2 Row Canopy (Front & Rear)	0.28	0.41	0.55	0.82	33	49	66	98
1 Row of Shelves	0.10	0.15	0.20	0.29	12	18	24	35
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
7 Rows of Shelves	0.68	1.02	1.36	2.03	82	122	163	244

EcoShine Multi-deck — High CRI —120VAC, 50/60Hz

2 Row Canopy (Front & Rear)	0.32	0.47	0.63	0.93	38	56	75	112
1 Row of Shelves	0.12	0.18	0.23	0.35	14	21	28	42
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
7 Rows of Shelves	0.82	1.23	1.63	2.45	98	147	196	294

Always*Bright Multi-deck —120VAC, 50/60Hz

2 Row Canopy (Front & Rear)	0.38	0.55	0.71	1.08	45	66	85	130
1 Row of Shelves	0.15	0.19	0.23	0.38	18	23	28	45
5 Rows of Shelves	0.57	0.83	1.13	1.69	68	99	136	203
6 Rows of Shelves	0.67	0.96	1.33	2.00	80	115	160	240
7 Rows of Shelves	0.77	1.09	1.53	2.29	92	131	184	275

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)	10.96 ft ³ /ft (1.02 m ³ /m)
<i>AHRI Total Display Area</i> ² (Sq Ft/Ft)	5.67 ft ² /ft (1.73 m ² /m)
<i>Shelf Area</i> ³ (Sq Ft/Ft)	9.87 ft ² /ft (3.01 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 (5) rows of 22-inch shelves.

ESTIMATED SHIPPING WEIGHT⁴					
Case					Solid End
	<i>4 ft</i>	<i>6 ft</i>	<i>8 ft</i>	<i>12 ft</i>	<i>(each)</i>
lb (kg)	800 (363)	1000 (454)	1200 (544)	1600 (726)	100 (45)

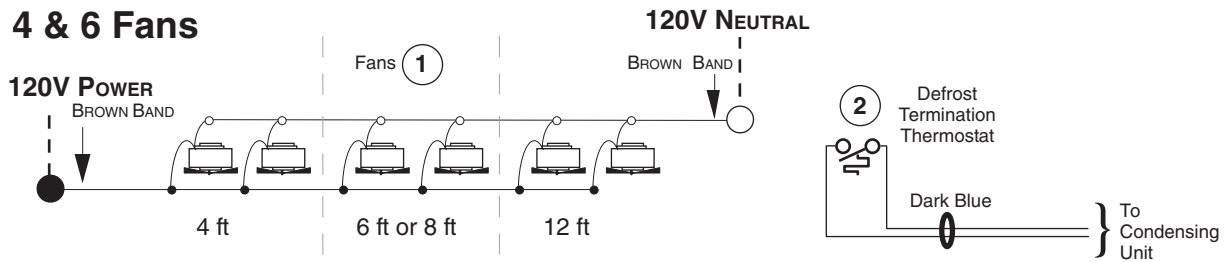
⁴ Actual weights will vary according to optional kits included.

PARTS LIST (Continued from Page 1)								
Item	Part #	Description			Item	Part #	Description	
LED FIXTURES AND POWER SUPPLY								
E.	0501213	Power Supply (EP.4481861)		(5)	F.	(CONTINUED) EcoShine LED Canopy Fixture		
F.	EcoShine LED Canopy Fixture			(6)	4441713	Rear	36-inch 2900K HCRI	
	4441720	Front	48-inch 2900K HCRI		4441715	Rear	36-inch 3500K HCRI	
	4441722	Front	48-inch 3500K HCRI		4441717	Rear	36-inch 3500K	
	4441724	Front	48-inch 3500K		4441719	Rear	36-inch 4100K	
	4441726	Front	48-inch 4100K		G.	EcoShine LED Shelf Fixture		
	4441721	Rear	48-inch 2900K HCRI		4441590	48-inch	2900K HCRI	
	4441723	Rear	48-inch 3500K HCRI		4441591	48-inch	3500K HCRI	
	4441725	Rear	48-inch 3500K		4441592	48-inch	3500K	
	4441727	Rear	48-inch 4100K		4441593	48-inch	4100K	
	4441712	Front	36-inch 2900K HCRI		4441586	36-inch	2900K HCRI	
	4441714	Front	36-inch 3500K HCRI		4441587	36-inch	3500K HCRI	
	4441716	Front	36-inch 3500K		4441588	36-inch	3500K	
	4441718	Front	36-inch 4100K		4441589	36-inch	4100K	

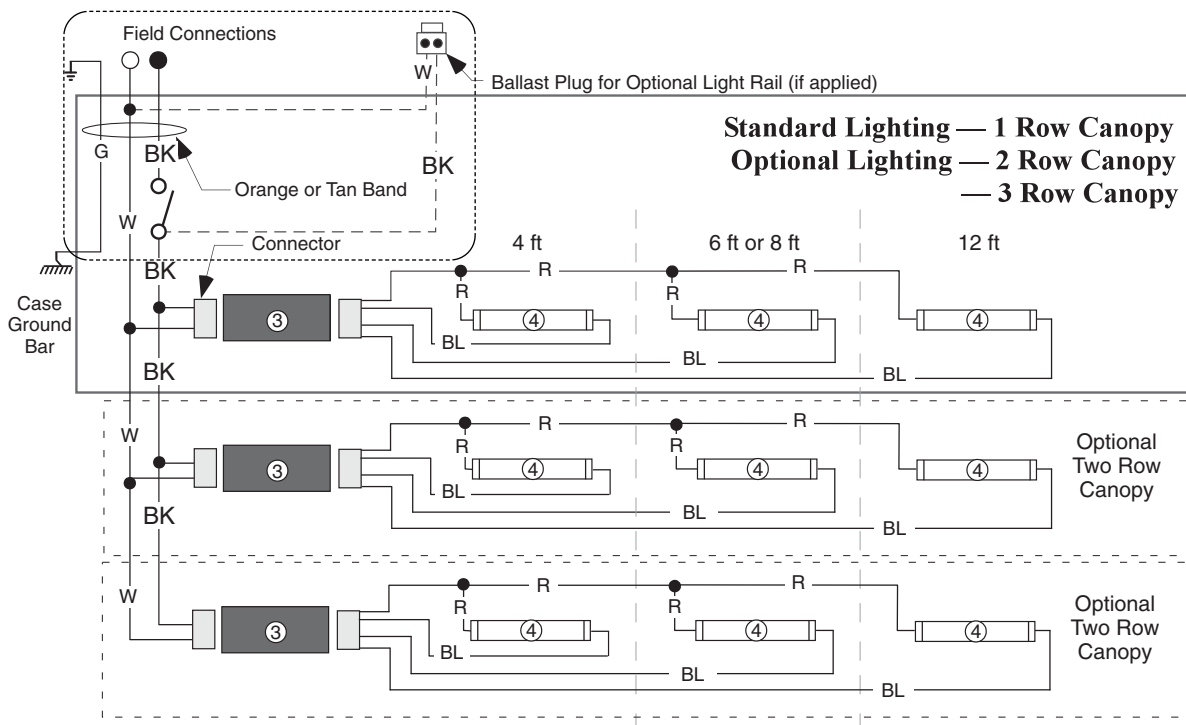
Note: Always*Bright lamps will be replaced with the latest generation of EcoShine lamps.

Fan Wiring Offtime Defrost

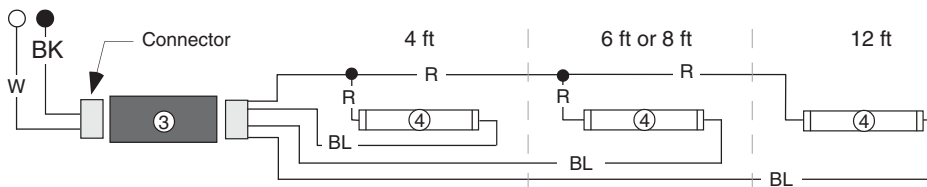
4 & 6 Fans



Canopy Light Circuits— Fluorescent Fixtures



Optional Lighting — 1 Row Rail



WARNING

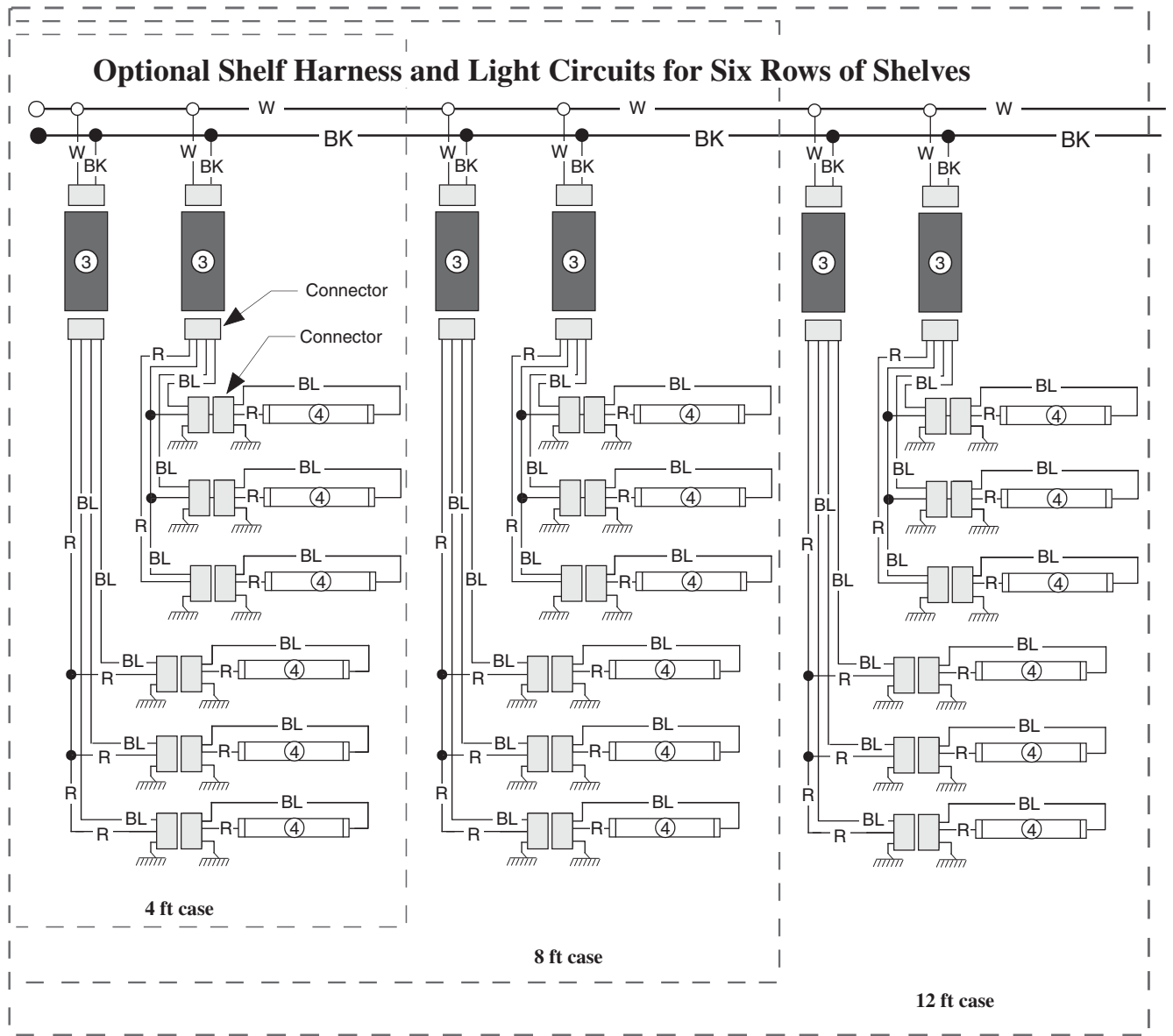
All components must have mechanical ground, and the merchandiser must be grounded.

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



WARNING

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

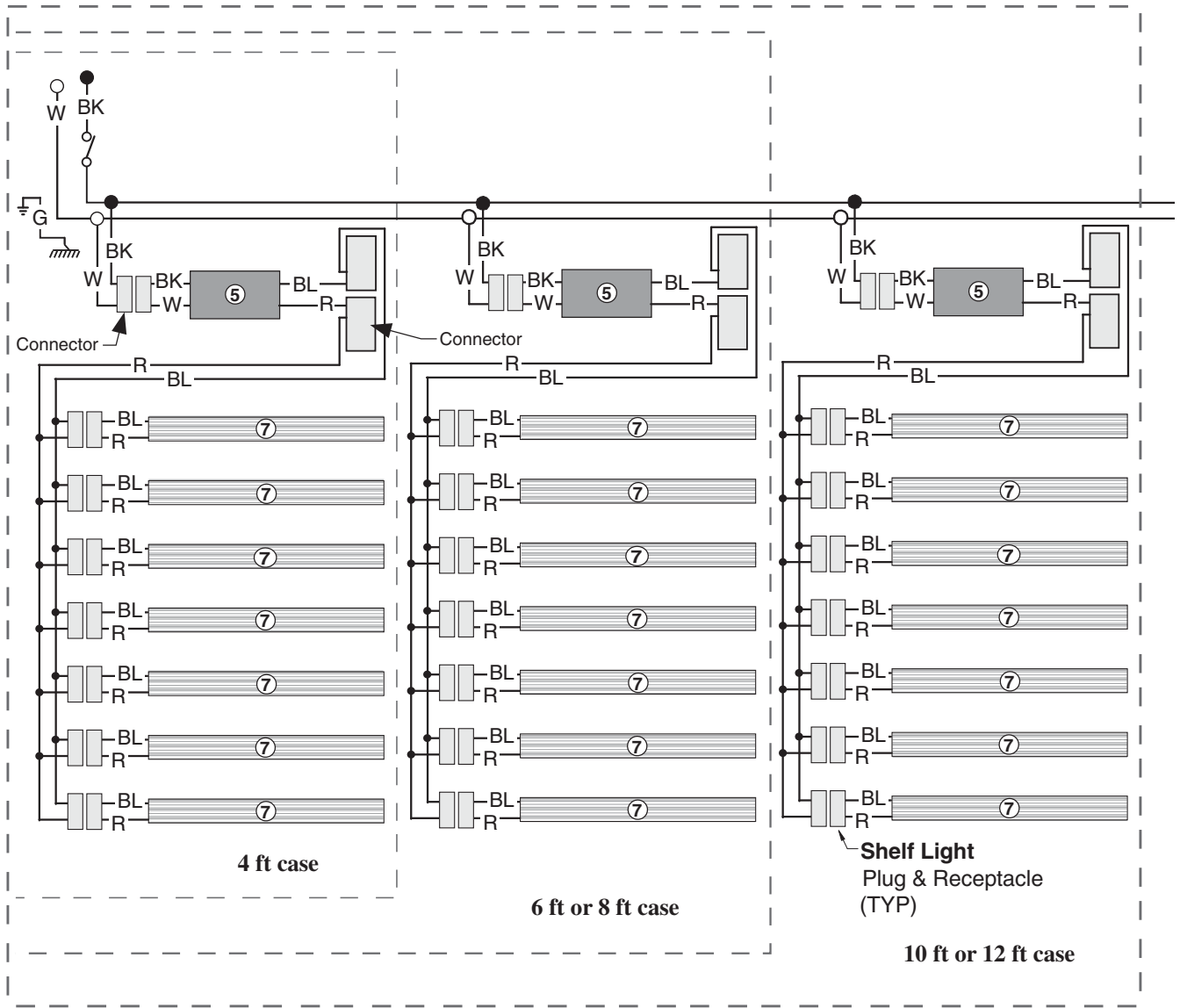
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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Optional LED Shelf Lighting

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