

DOE 2017
 Energy Efficiency
 Compliant

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 AND THERMOSTATS				LED FIXTURES AND POWER SUPPLY			
A.	7W Standard Energy Efficient Fan Assembly			F.	0501213	Power Supply	(6)
	0477654	Fan Motor, Evaporator		G.		LED Canopy Fixture	(7)
	0142780	Fan Blade				<i>Replace with like fixtures</i>	
		embossing toward motor		H.		LED Shelf Fixture	(8)
B.	0411744	Standard Non-adjustable Defrost Thermostat	(2)			<i>Replace with like fixtures</i>	
C.		Optional Adjustable Refrigeration Thermostat(3)					
LAMPS AND BALLASTS							
D.	Ballast, Electronic						
	0466234	2 lamps	(4)				
	0466235	3 lamps					
	0466236	4 lamps					
E.	Fluorescent Lamp		(5)				
		<i>Replace with like fixtures</i>					

Data sheet-Elite-E3S

Note: Revision F: April 2017. Updated LED energy values. Other changes marked with a bar, circle or underline.

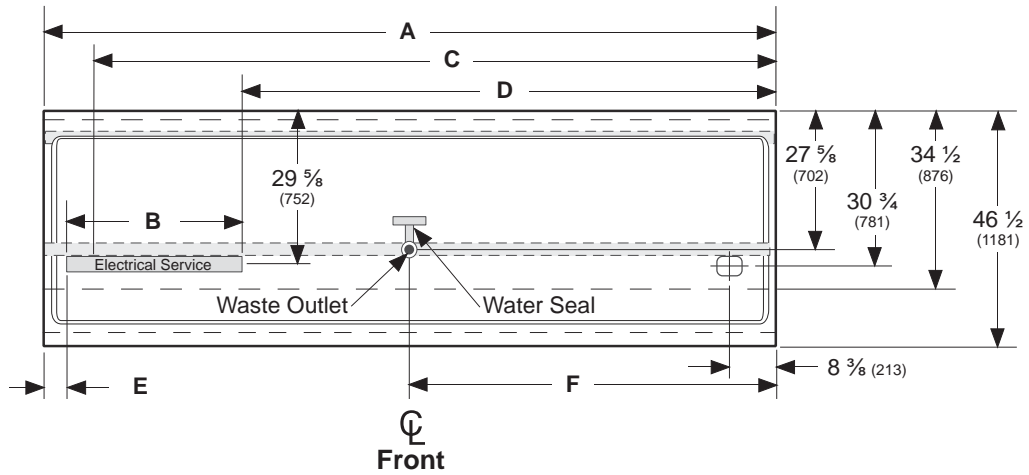
Engineering Plan Views





Dimensions shown as inches and (mm).

PHYSICAL DATA	
Merchandiser Drip Pipe (in.)	1 1/2
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	7/8

E3S
Delicatessen
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Produce

04-2010

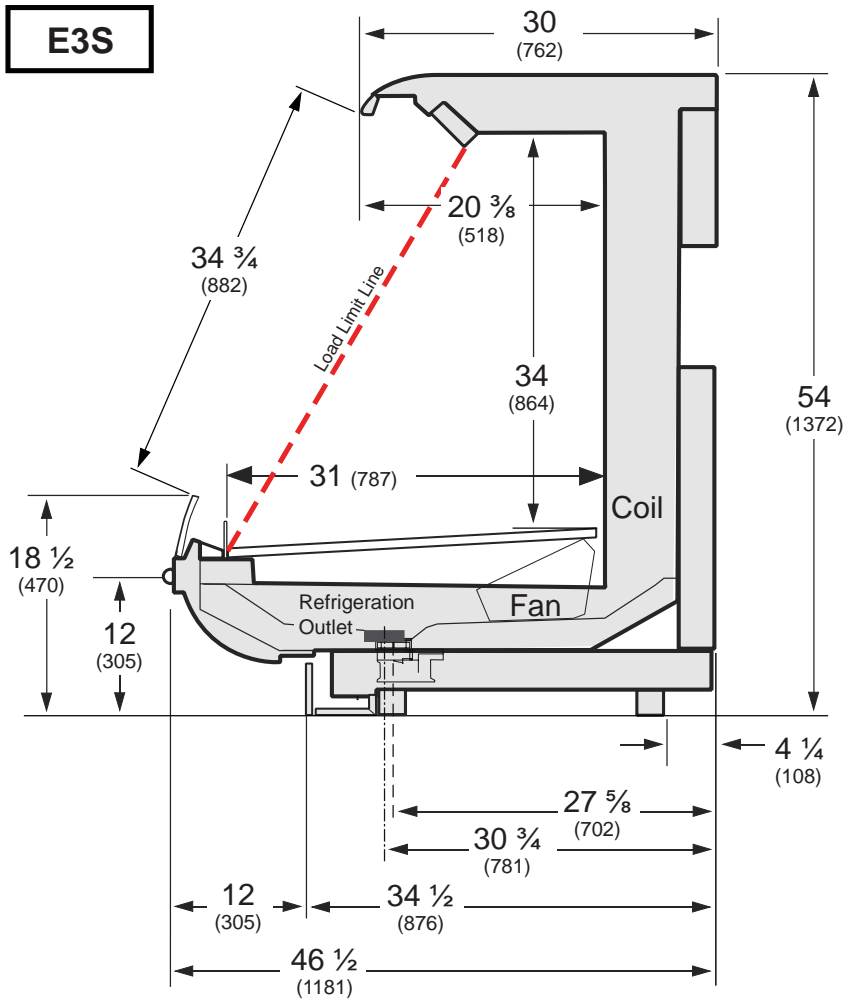


	6 ft	8 ft	12 ft
General			
(A) Case Length (<i>without ends or partitions</i>)	72 1/8 (1832)	96 1/4 (2445)	144 3/8 (3667)
<i>NOTE: Each end or insulated partition adds 1 inch to lineup.</i>			
Maximum O/S dimension back to front (<i>with bumper</i>)	46 1/2 (1181)	46 1/2 (1181)	46 1/2 (1181)
Back of case to front of front panel	34 1/2 (876)	34 1/2 (876)	34 1/2 (876)
Back of case to O/S edge of front skid rail	29 3/8 (746)	29 3/8 (746)	29 3/8 (746)
Width of skid rail	4 1/2 (114)	4 1/2 (114)	4 1/2 (114)
RH end of case to outside edge of external support	1 3/8 (34)	1 3/8 (34)	1 3/8 (34)
Distance between edges of external support and center support	28 1/2 (724)	40 1/2 (1029)	40 1/2 (1029)
Distance between edges of center supports	NA	NA	44 (1118)
Stub-up area between front skid rail and front panel	5 3/4 (146)	5 3/4 (146)	5 3/4 (146)
Electrical Service  (<i>Electrical Field Wiring connection point</i>)			
(B) Length of electrical raceway	18 3/8 (467)	37 (940)	37 (940)
(C) RH End of case to center of farthest knockout Back of case to center of end knockout	60 3/4 (1543) 29 5/8 (752)	84 3/4 (2153) 29 5/8 (752)	132 3/4 (3372) 29 5/8 (752)
(D) RH End of case to RH end of wireway LH End of case to LH end of wireway	51 5/8 (1311) 2 1/8 (54)	57 1/4 (1454) 2 1/8 (54)	105 1/8 (2670) 2 1/8 (54)
Waste Outlet 			
(E) RH End of case to the center of waste outlet LH End of case to the center of waste outlet Back O/S of case to center of waste outlet	24 1/4 (616) 47 7/8 (1216) 27 5/8 (702)	24 1/2 (622) 71 3/4 (1822) 27 5/8 (702)	72 1/4 (1834) 72 1/8 (1832) 27 5/8 (702)
Water Seal 			
Edge of water seal to center of waste outlet Schedule 40 diameter of the drip pipe	4 (102) 1 1/2 (38)	4 (102) 1 1/2 (38)	4 (102) 1 1/2 (38)
<i>NOTE: Water seal outlet must clear front skid rail; water seal rotation in forward direction only due to low base.</i>			
Refrigeration Outlet 			
Back of case to center of refrigeration outlet RH end of case to center of refrigeration outlet	30 3/4 (781) 8 3/8 (213)	30 3/4 (781) 8 3/8 (213)	30 3/4 (781) 8 3/8 (213)

Elite Specialty Merchandiser Multi-deck, 3 Display Levels

DOE 2017 Energy Efficiency Compliant Hussmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.

Dimensions shown as inches & (mm).



See Page 12 for recommended shelf configuration.

Estimated Charge **	E3S		
6 ft	1.8 lb	29 oz	0.8 kg
8 ft	1.9 lb	30 oz	0.9 kg
12 ft	2.9 lb	46 oz	1.3 kg

**This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8 oz/0.2 kg).

NSF Certification

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

Elite E3S
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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.

	E3S§
Discharge Air (°F)	29
Evaporator (°F)	21
Unit Sizing (°F)	19

§ Average evaporator temperature shown. Use dew point for high glide refrigerants for unit sizing. Care should be taken to use the dew point in PT tables for measuring and adjusting superheat. Adjust evaporator pressure as needed to maintain discharge air temperature shown.

Btu/hr/ft ³ — Unlit Shelves ^{††}	E3S
Parallel	1159
Conventional	1259

† Add 20 Btu/hr/ft³ per shelf row for fluorescent lamps.

DEFROST DATA

	E3S
Frequency (hr)	6
Defrost Water (lb/ft/day)	8

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

OFFTIME	E3S
Temp Term (°F)	48
Failsafe (minutes)	40

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*	E3S
Temp (°F)	14 / 4

Indoor Unit Only, Pressure Defrost Termination (Temp °F)* 48°F

*Use a Temperature Pressure Chart to determine PSIG conversions.

Elite E3S Delicatessen Precut & Packaged Produce

Electrical Data

	6 ft	8 ft	12 ft			
Number of Fans—7W	2	2	3			
	Amperes			Watts		
	6 ft	8 ft	12 ft	6 ft	8 ft	12 ft
Evaporator Fan						
120V 50/60Hz Standard Energy Efficient	0.38	0.38	0.57	28	28	42
230V 50/60Hz Standard Energy Efficient	NA					
230V 60Hz Export	NA					
230V 50Hz Export	NA					
Cycling Anti-sweat Heaters	NA					
Minimum Circuit Ampacity						
120V 50/60Hz Standard Energy Efficient	0.58	0.58	0.77			
230V 50/60Hz Standard Energy Efficient	NA					
230V 60Hz Export	NA					
230V 50Hz Export	NA					
Maximum Over Current Protection 120V	20	20	20			
Maximum Over Current Protection 230V	NA					
208V Electric Defrost Heaters	NA					

ONLY LIGHTING CONFIGURATIONS THAT ARE COMPLIANT WITH THE U.S. DEPT. OF ENERGY (DOE) 2017 REGULATION ARE AVAILABLE FOR SALE FOR USE IN THE U.S.A.

Standard Lighting (T-8 fluorescent)						
2 Rows of Canopy	1.01	1.01	1.52	122	122	183
Optional Lighting (T-8 fluorescent)						
1 Row of Rail Lights	0.51	0.51	0.76	62	62	96
1 Row of Ledge Lights	0.51	0.51	0.76	62	62	96
Optional Shelf Lighting (T-8 fluorescent)						
1 Row of Shelves	0.51	0.51	0.76	62	62	96
2 Rows of Shelves	1.01	1.01	1.52	122	122	183
3 Rows of Shelves	1.53	1.53	2.28	184	184	274

Please note: some combinations of fluorescent lights on this case model may not be compliant with DOE 2017 and may not be available to order in the US and Canada. More lighting options are available with LED lights. The Hussmann Product Configurator will not allow lighting options that do not comply with the DOE 2017 standards.

(CONTINUED)

Product Data

<i>Recommended Usable Cube</i> ¹ (Cu Ft/Ft)	4.58 ft ³ /ft (0.43 m ³ /m)
<i>AHRI Total Display Area</i> ² (Sq Ft/Ft)	3.16 ft ² /ft (0.96 m ² /m)
<i>Shelf Area</i> ³ (Sq Ft/Ft)	7.08 ft ² /ft (2.16 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 (1) row of 14-inch shelf, (1) row of 18-inch shelf and (1) row of 22-in shelf.

ESTIMATED SHIPPING WEIGHT ⁴				
Case				Solid End
	6 ft	8 ft	12 ft	(each)
lb (kg)	600 (272)	800 (363)	1000 (454)	100 (45)

⁴ Actual weights will vary according to optional kits included.

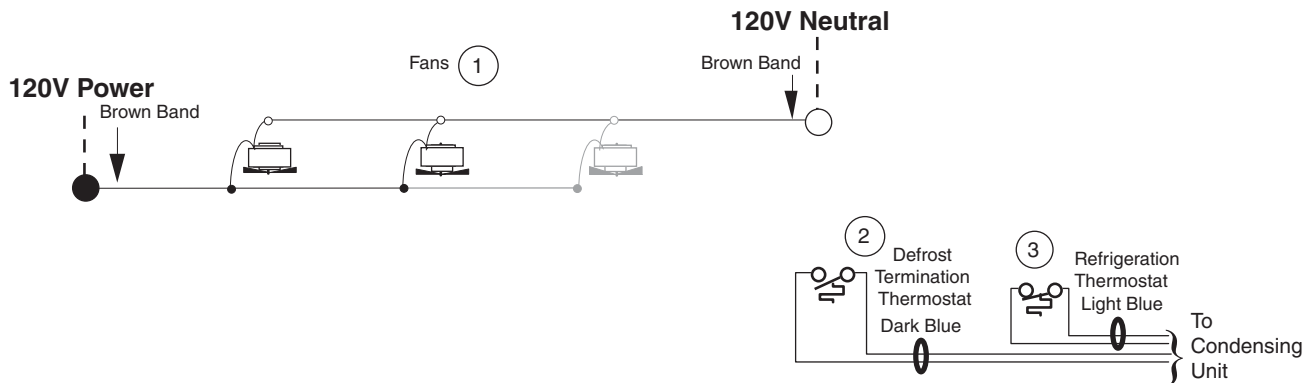
Electrical Data (Continued)

	Amperes			Watts		
	6 ft	8 ft	12 ft	6 ft	8 ft	12 ft
EcoShine II Canopy						
EcoShine II	0.26	0.32	0.48	31.6	38.6	58.0
EcoShine II HO	0.33	0.44	0.66	39.5	53.0	79.4
EcoShine II Rail Light —1 Row	0.12	0.16	0.25	14.1	19.8	29.7
EcoShine II Shelves						
2 Rows of Shelves	0.23	0.33	0.49	28.2	39.5	59.3
3 Rows of Shelves	0.35	0.49	0.74	42.3	59.3	89.0
4 Rows of Shelves	0.47	0.66	0.99	56.4	79.1	118.6

120V Lighting Circuit Total = Standard Lighting + Total Optional Lighting + Optional Shelf Lighting
 120V LED Lighting Circuit Total = Canopy Lighting + Shelf Lighting + Optional Rail Lighting
 230V Lighting Circuit Total = Multiply 120V Lighting Circuit Total by 0.52

Fan Wiring Offtime Defrost

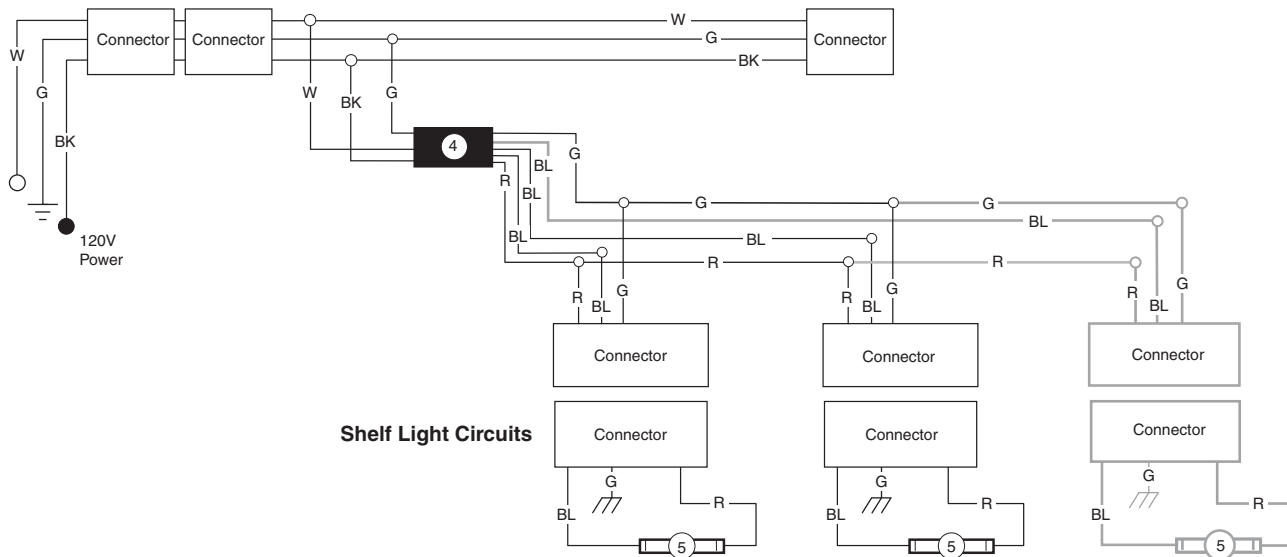
2 & 3 Fans



Shelf Lighting

Optional Shelf Harness and Light Circuits for One Row of Shelves

Shelf Harness



WARNING

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

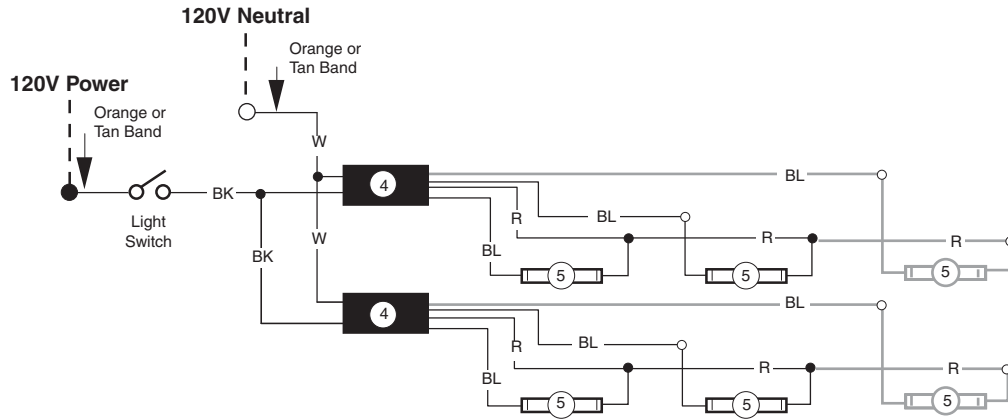
Circled Numbers = Parts List Item Numbers

Grayed components in 12 foot models only.

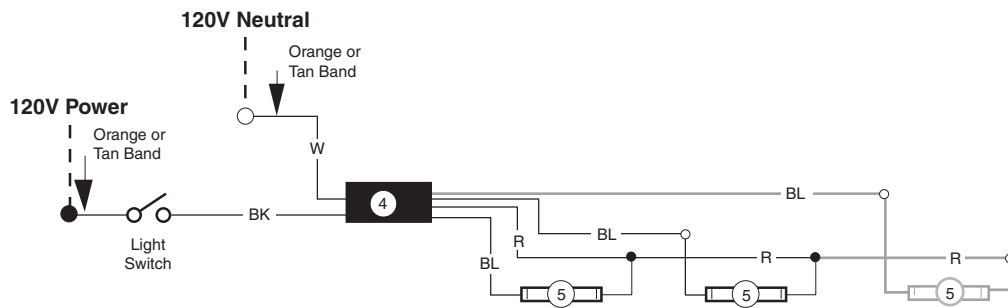
R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

● = 120V Power ○ = 120V Neutral ⊥ = Field Ground ≡ = Case Ground

Standard Lighting – 2 Rows Canopy



Optional Lighting: 1 Row Ledge or 1 Row Rail



WARNING

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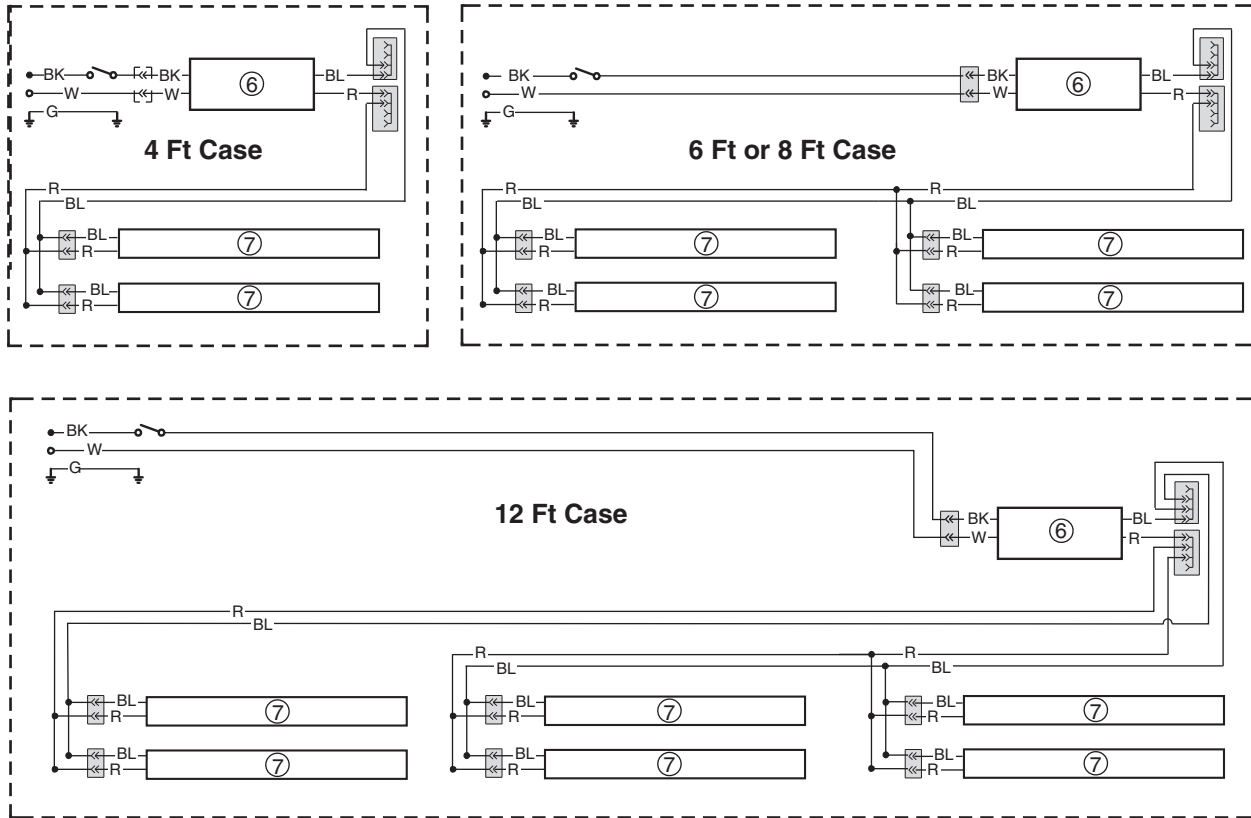
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EcoShine II LED Canopy Lighting – 2 Row



WARNING

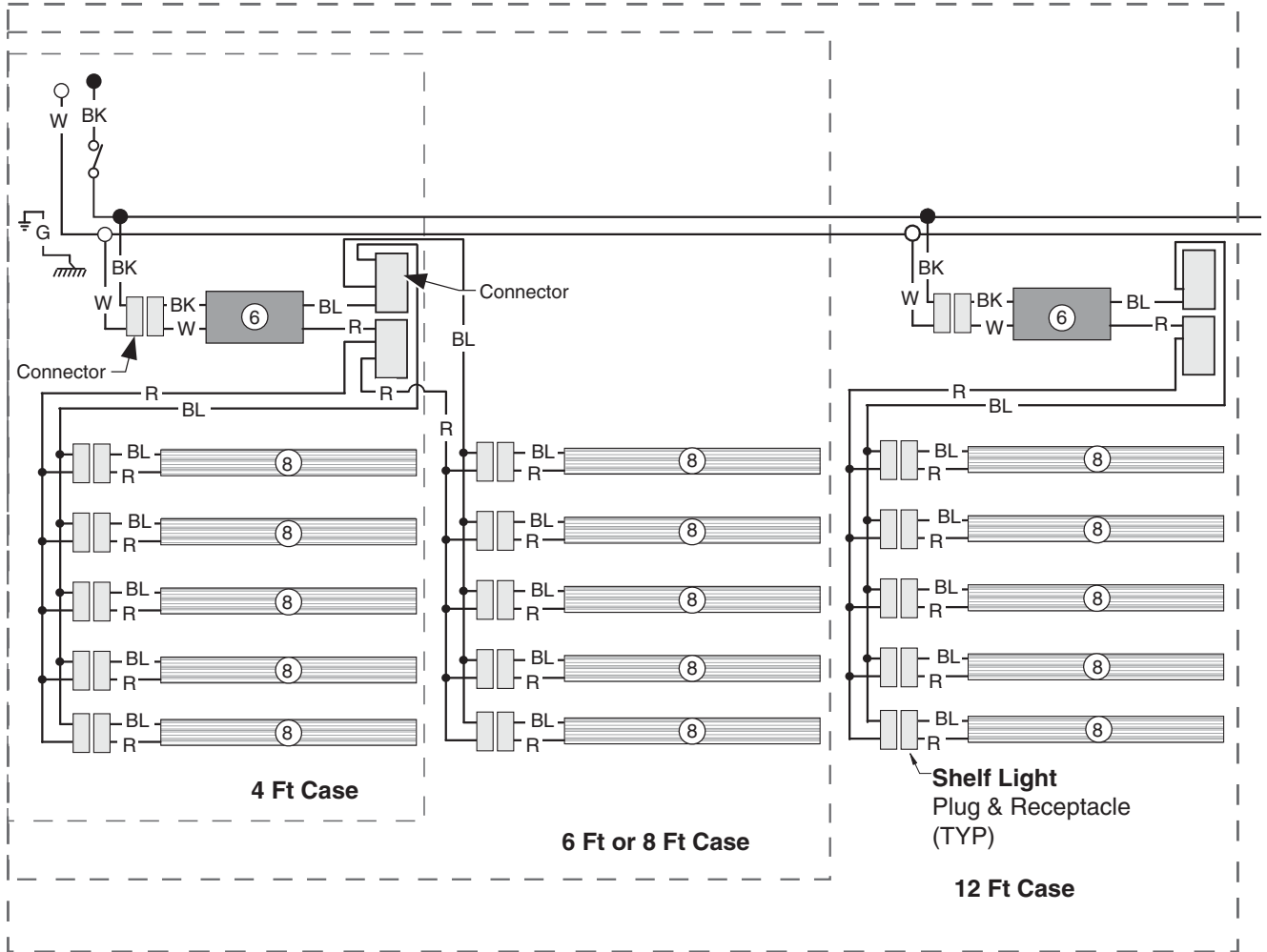
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Optional Shelf Harness and LED Light Circuits for 4 or 5 Rows of Shelves



WARNING

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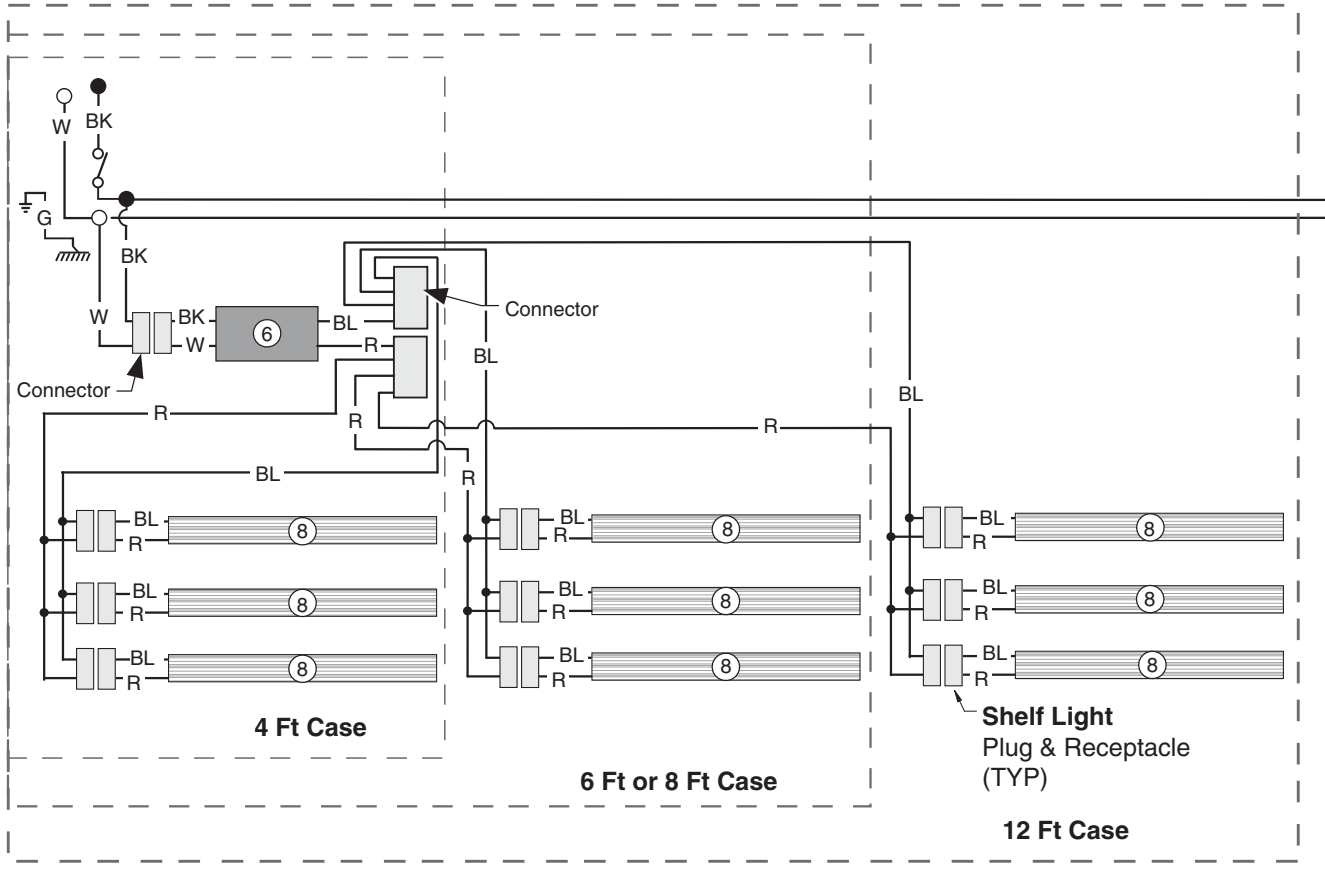
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Optional Shelf Harness and LED Light Circuits for 2 or 3 Rows of Shelves



WARNING

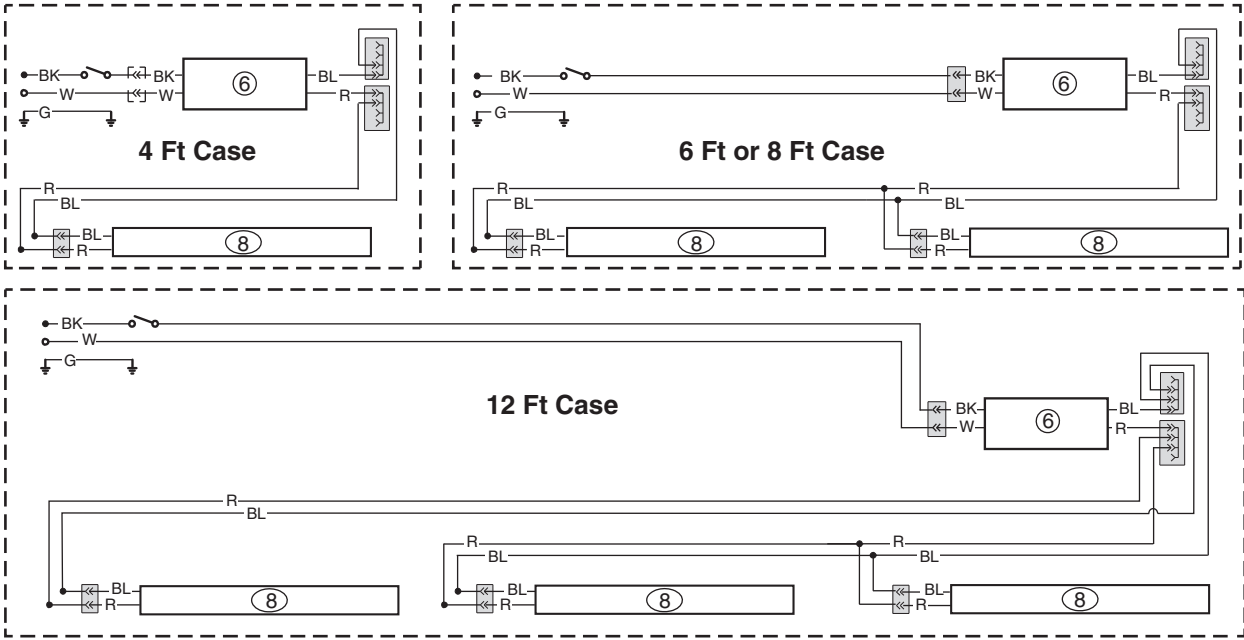
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EcoShine II LED Rail Lighting – 1 Row



WARNING

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● = 120V Power ○ = 120V Neutral ⊥ = Field Ground ≡ = Case Ground

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SHELF CONFIGURATION

This merchandiser is designed for three shelves.

This illustration shows recommended shelf depth and shelf angle for the three locations.

It is critical to case performance that no product, shelf or stop extend beyond the load limit, as shown in this illustration. This configuration supports the air curtain and provides optimal case performance.

Check with Hussmann engineering before using a different configuration.

