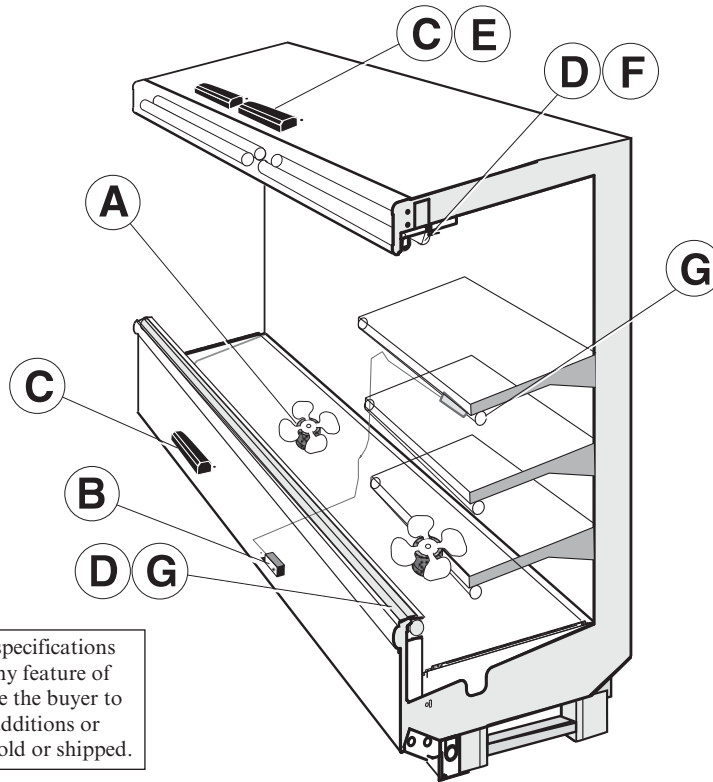


HUSSMANN® Excel

FL4NX-EP Technical Data Sheet P/N 0496537_M

April 2017

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				LAMPS AND BALLASTS			
12 Ft				C.	Ballast, Electronic		(3)
A.	12W Standard 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)		
THERMOSTATS				D.	Fluorescent Lamp		(4)
B.	Optional Adjustable Refrigeration Thermostat (2)				<i>Replace with like fixtures</i>		
				LED FIXTURES AND POWER SUPPLY			
				E.	0501213	Power Supply (EP.4481861)	(5)
				F.		LED Canopy Fixture	(6)
						<i>Replace with like fixtures</i>	
				G.		LED Shelf Fixture	(7)
						<i>Replace with like fixtures</i>	

Data sheet-Excel FL4NX-EP

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

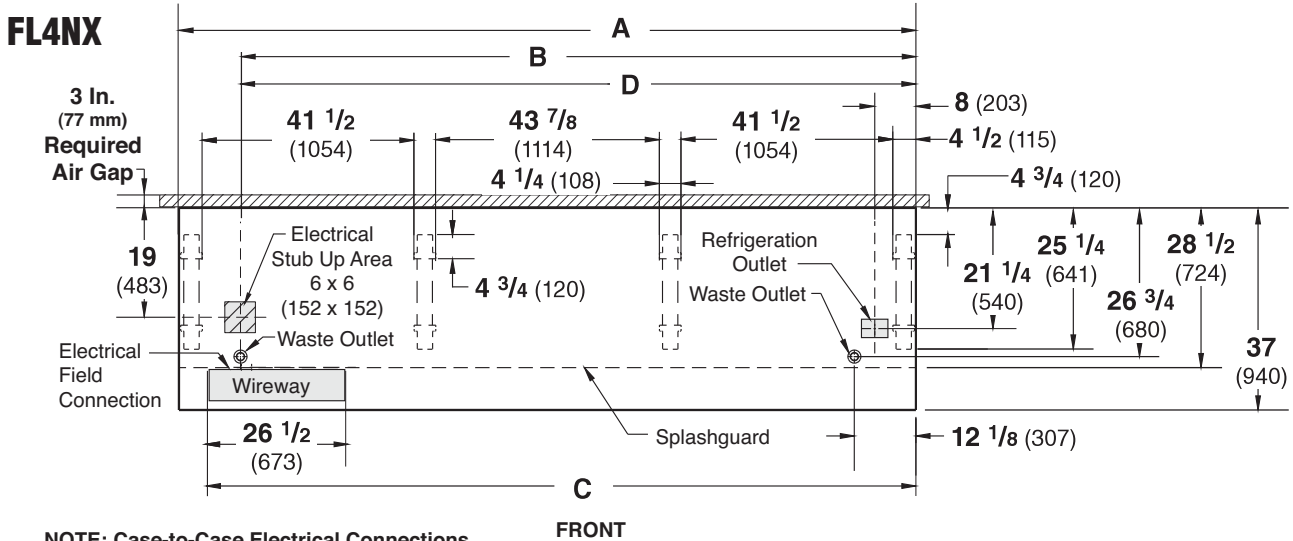
Engineering Plan Views

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

Narrow Floral

Dimensions shown as in. and (mm).

10-2004



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

	12 ft
General	
(A) Case Length (<i>without ends or partitions</i>) (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)	144 1/2 (3670)
Back of case to front of splashguard	37 (940)
Back of case to O/S edge of front leg	28 1/2 (724)
Distance between edges of external legs and center legs	25 1/4 (641)
Distance between edges of center legs	41 1/2 (1054)
Distance between front legs and splashguard	43 7/8 (1114)
	2 3/4 (70)
Electrical Service (<i>Electrical Field Wiring connection point</i>)	
(B) RH End of case to center of stub up area	132 3/8 (3363)
Back of case to center of stub up area	19 (483)
Length of electrical wireway Wireway	26 1/2 (673)
(C) RH End of case to LH end of wireway	138 1/4 (3511)
Waste Outlets (<i>One each end</i>)	
(D) RH End of case to the center of LH waste outlet	132 3/8 (3363)
RH End of case to the center of RH waste outlet	12 1/8 (307)
Back O/S of case to center of waste outlets	26 3/4 (680)
Schedule 40 PVC drip pipe	1 1/4 (32)
Refrigeration Outlet	
Back of case to center of refrigeration outlet	21 1/4 (540)
RH end of case to center of refrigeration outlet	8 (203)

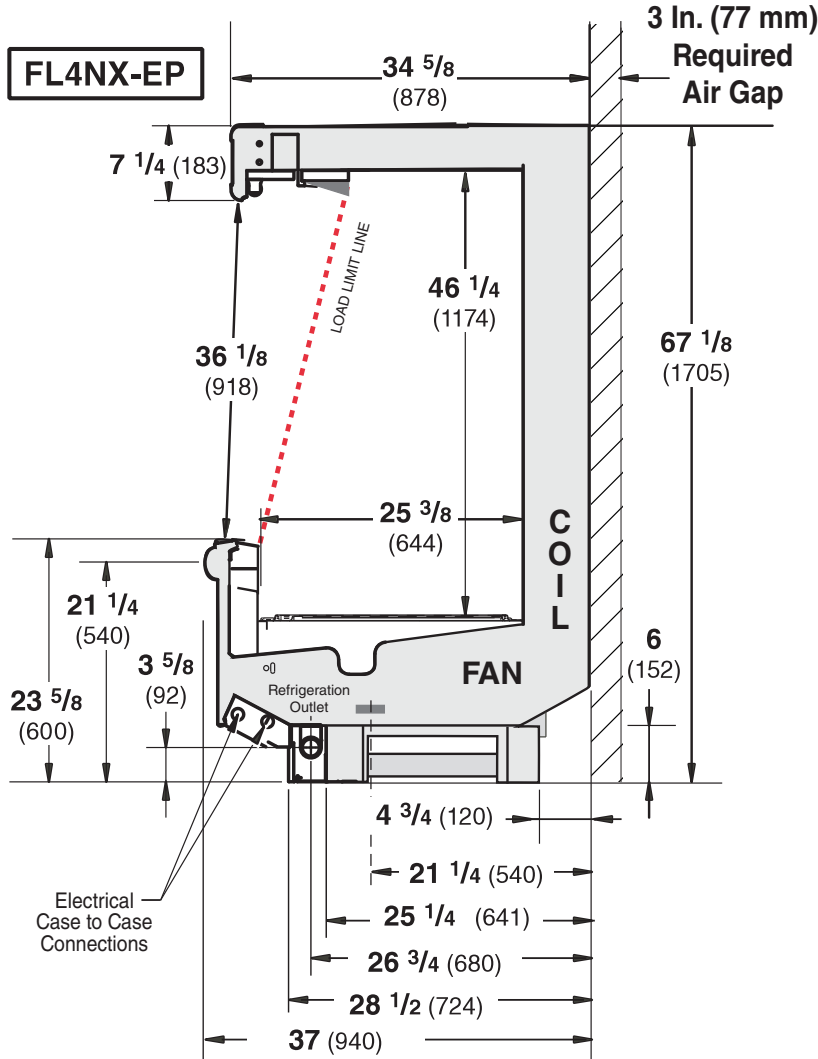
Narrow Footprint, Multi-deck, 4 Display Levels, Standard Front Height



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

Excel FL4NX-EP
Floral

Dimensions shown as in. and (mm).



Estimated Charge**		FL4NX-EP	
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 (8 oz/0.2 kg).

REFRIGERATION DATA

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

FL4NX-EP [§]	UNLIT
Discharge Air °F	34
Evaporator °F	27
Unit Sizing °F	25

§ 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 — Unlit Shelves[‡]

FL4NX-EP	Parallel	Conventional
UNLIT	1173	1223

‡ 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	8
Defrost Water (lb/ft/day)	3.5

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

OFFTIME	FL4NX-EP
Time (minutes)	20

ELECTRIC OR GAS Not Recommended

CONVENTIONAL CONTROLS

Low Pressure Backup Control

CI/CO*	FL4NX-EP
	18°F / 8°F

Indoor Unit Only, Pressure Defrost

Termination* 48°F

*Use a Temperature Pressure Chart to determine PSIG conversions.

Excel FL4NX-EP Floral

Electrical Data

		12 ft		
Number of Fans—12W		3		
Number of Fans—7W		—		
		Amperes	Watts	
		12 ft	12 ft	
Evaporator Fan				
120V	50/60Hz	Standard Energy Efficient	0.90	54
230V	50/60Hz	Standard Energy Efficient	0.45	54
230V	60Hz	Export	0.99	150
230V	50Hz	Export	1.14	171
Minimum Circuit Ampacity				
120V	50/60Hz	Standard Energy Efficient	1.10	
230V	50/60Hz	Standard Energy Efficient	0.65	
230V	60Hz	Export	1.19	
230V	50Hz	Export	1.34	
Maximum Over Current Protection 120V				
			20	
Maximum Over Current Protection 230V				
			15	
Standard Lighting (T-8 fluorescent)				
1 Row Canopy			0.77	85

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.

Optional Lighting (T-8 fluorescent)

Additional 1 Row Canopy	0.77	85
Additional 2 Row Canopy	1.54	170
Additional 3 Row Canopy	2.31	255
1 Row Rail Light	0.77	85
2 Row Canopy	1.08	130

HUSSMANN RECOMMENDS AGAINST FLUORESCENT SHELF LIGHTING IN FLORAL APPLICATIONS.

EcoShine II Canopy

EcoShine II	0.48	58.0
EcoShine II HO	0.66	79.4

EcoShine II Rail Light — 1 Row

	0.25	29.7
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EcoShine II Shelves

1 Row of Shelves	0.25	29.7
2 Rows of Shelves	0.49	59.3
3 Rows of Shelves	0.74	89.0
4 Rows of Shelves	0.99	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

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.

Product Data

<i>Recommended Usable Cube</i> ¹ (Cu Ft/Ft)	6.89 ft ³ /ft (0.64 m ³ /m)
<i>AHRI Total Display Area</i> ² (Sq Ft/Ft)	3.01 ft ² /ft (0.92 m ² /m)
<i>Shelf Area</i> ³ (Sq Ft/Ft)	7.64 ft ² /ft (2.33 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 (3) rows of 16-inch shelves.

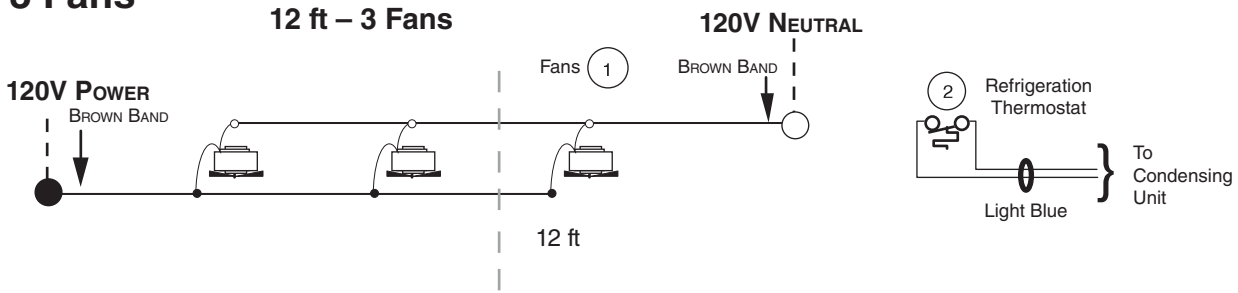
ESTIMATED SHIPPING WEIGHT ⁴

Case	12 ft	Solid End
lb (kg)	1500 (680)	(each) 100 (45)

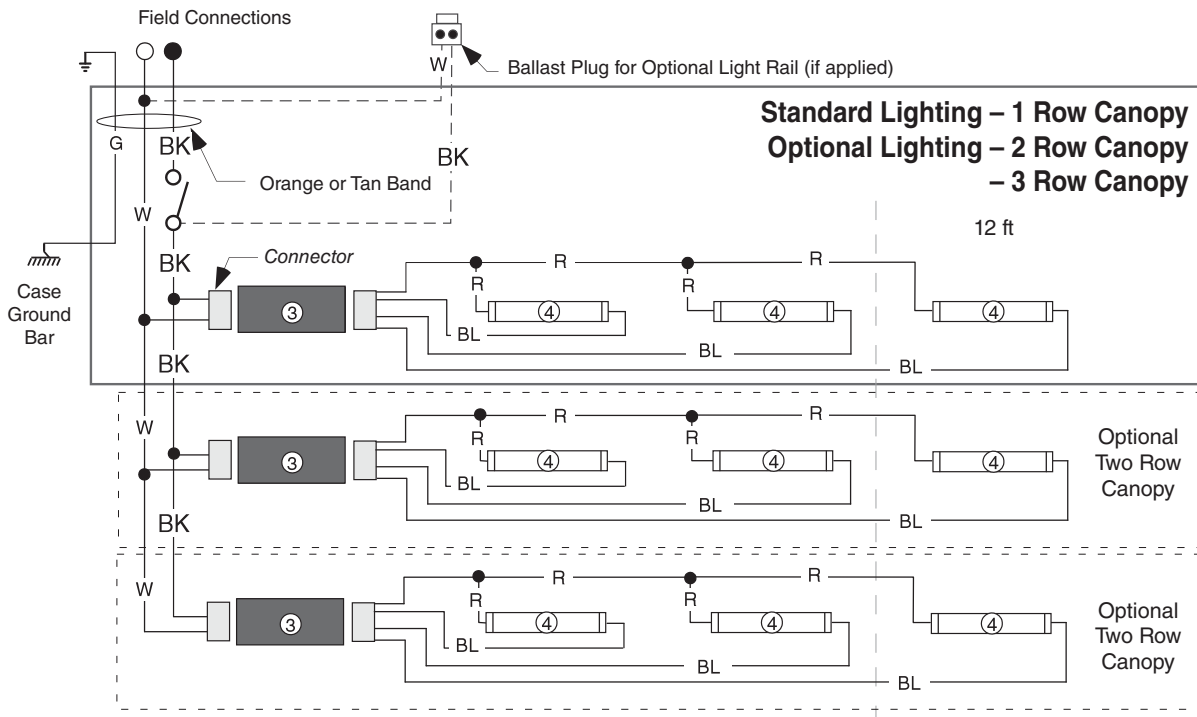
⁴ Actual weights will vary according to optional kits included.

Fan Wiring Offtime Defrost

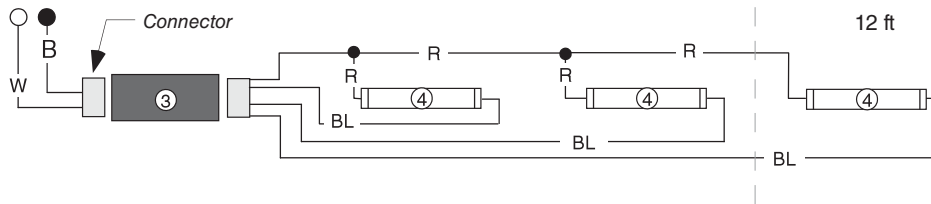
3 Fans



Canopy Light Circuits— Fluorescent Fixtures



Optional Lighting – 1 Row Rail



WARNING

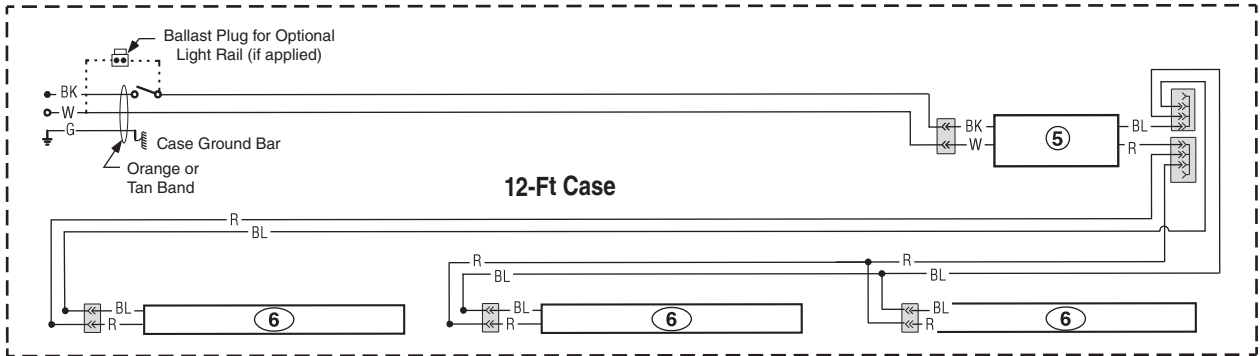
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

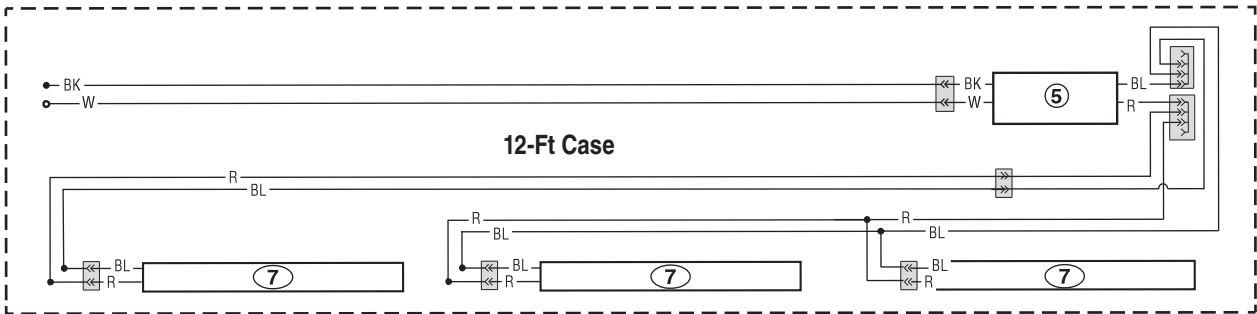
- R = Red Y = Yellow G = Green BL = Blue BK = Black W = White
- = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND ⏏ = CASE GROUND

Optional Canopy and Rail Light Circuits — LED Fixtures

EcoShine II LED Canopy Lighting – 1 Row



EcoShine II LED Rail Lighting – 1 Row



WARNING

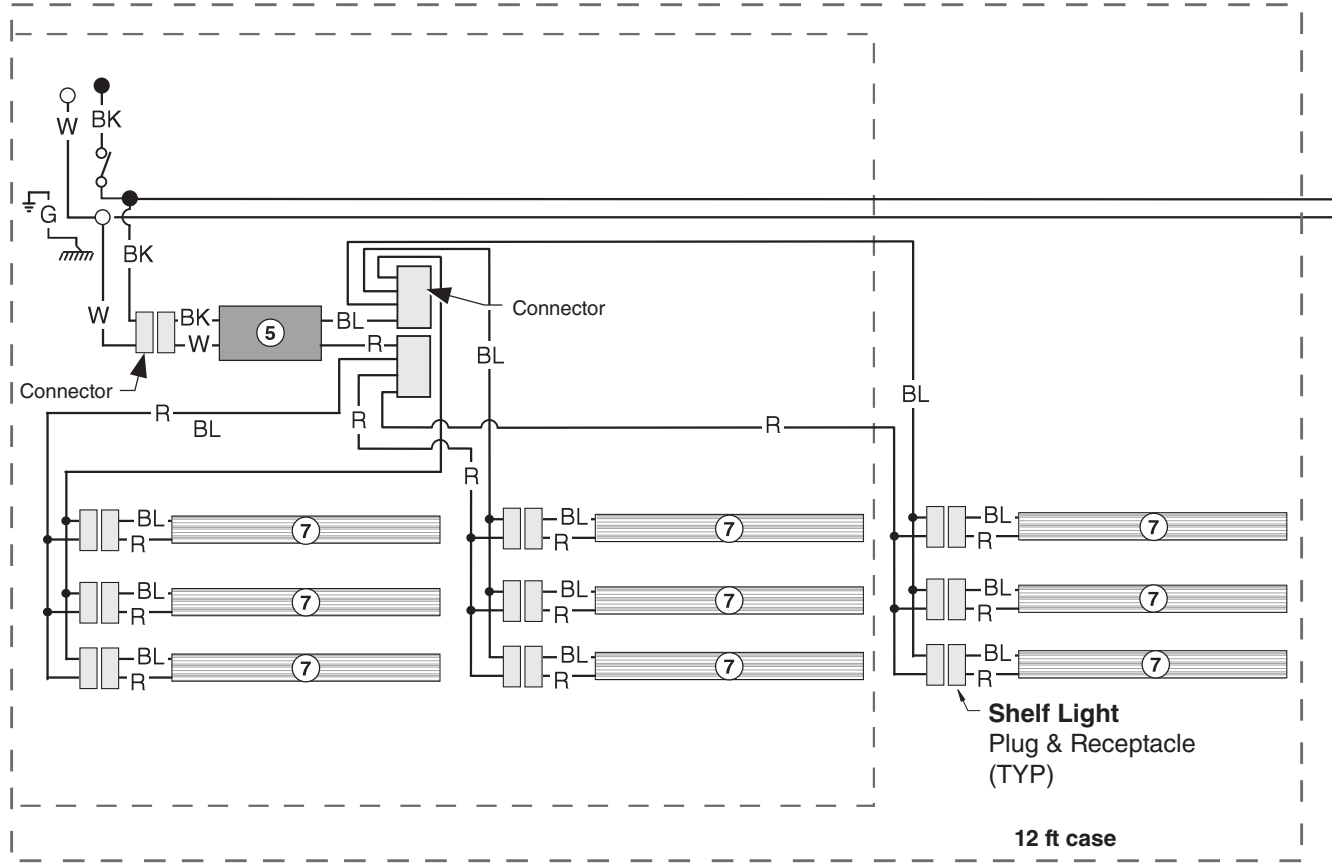
All components must have mechanical ground, and the merchandiser must be grounded.

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

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



WARNING

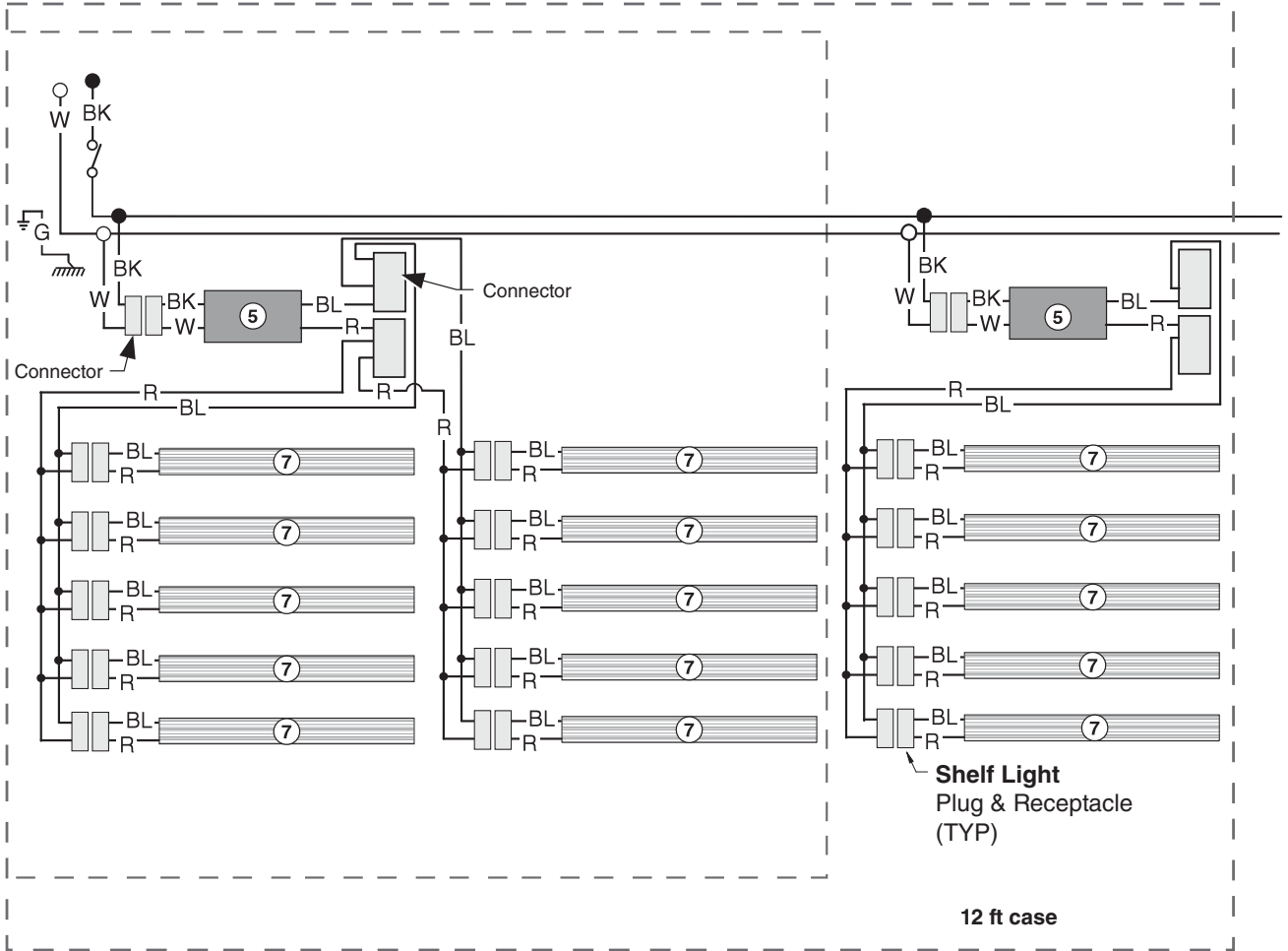
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red G = Green BL = Blue BK = Black W = White
 ● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND ≡ = CASE GROUND

Optional Canopy Lighting LED Fixtures

Optional Shelf Harness and LED Light Circuits for 4 or 5 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
 ● = 70V POWER ○ = 70V NEUTRAL ⊥ = FIELD GROUND m = CASE GROUND