

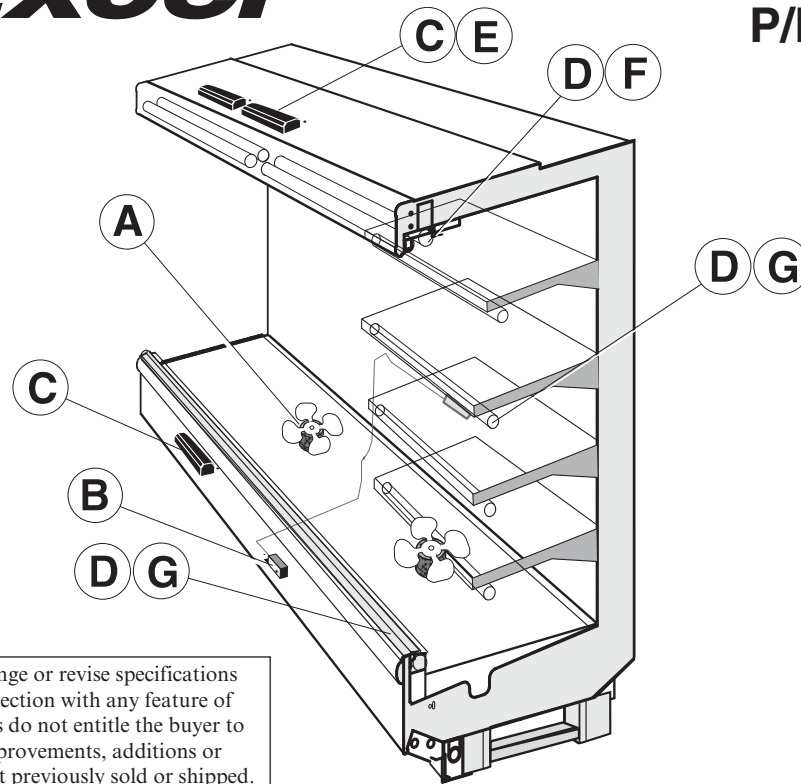
# HUSSMANN® Excel

## FL5NX-LEP

Technical Data Sheet  
P/N 0474829\_L

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 #
<b>FAN ASSEMBLIES</b>				<b>LAMPS AND BALLASTS</b>			
<b>4 Ft, 8 Ft, 10 Ft &amp; 12 Ft</b>				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)		
	0463643	Fan Blade (FB.4780648)		0480132	4 lamps (BA.4481677)		
<b>6 Ft Only</b>				D.	Fluorescent Lamp		(4)
A.	7W Standard Energy Efficient Fan Assembly (1)			<i>Replace with like fixtures</i>			
	0477654	Fan Motor, Evaporator (MO.4410545)		<b>LED FIXTURES AND POWER SUPPLY</b>			
	0124150	Fan Blade (FB.0124150)		E.	0501213	Power Supply (EP.4481861)	(5)
<b>THERMOSTATS</b>				F.	LED Canopy Fixture		(6)
B.	Optional Adjustable Refrigeration Thermostat (2)			<i>Replace with like fixtures</i>			
				G.	LED Shelf Fixture		(7)
				<i>Replace with like fixtures</i>			

Data sheet-Excel-FL5NX-LEP

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

# Engineering Plan Views

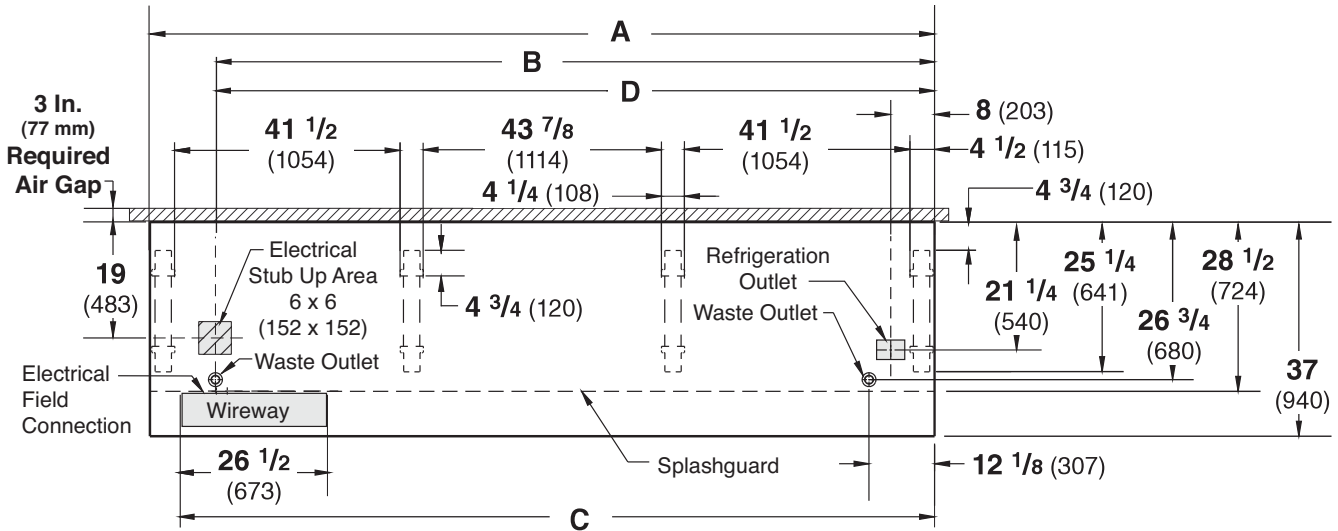
## PHYSICAL DATA

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





### Floral

08-2006

Dimensions shown as in. and (mm).



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

	4 ft	6 ft	8 ft	10 ft	12 ft
<b>General</b>					
<b>(A)</b> Case Length ( <i>without ends or partitions</i> )	48 3/8 (1229)	72 3/8 (1838)	96 3/8 (2448)	120 3/8 (3058)	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>	37 (940)	37 (940)	37 (940)	37 (940)	37 (940)
Back of case to front of splashguard	28 1/2 (724)	28 1/2 (724)	28 1/2 (724)	28 1/2 (724)	28 1/2 (724)
Back of case to O/S edge of front leg	25 1/4 (641)	25 1/4 (641)	25 1/4 (641)	25 1/4 (641)	25 1/4 (641)
Distance between edges of external legs and center legs	NA	29 1/2 (750)	41 1/2 (1054)	29 1/2 (750)	41 1/2 (1054)
Distance between edges of center legs	NA	NA	NA	43 7/8 (1114)	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)	2 3/4 (70)
<b>Electrical Service</b>  ( <i>Electrical Field Wiring connection point</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)	108 1/4 (2750)	132 3/8 (3363)
Back of case to center of stub up area	19 (483)	19 (483)	19 (483)	19 (483)	19 (483)
Length of electrical wireway 	26 1/2 (673)	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)	114 1/4 (2092)	138 1/4 (3511)
<b>Waste Outlets</b> ( <i>One each end</i> ) 					
<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)	108 1/4 (2750)	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)	12 1/8 (307)
Back O/S of case to center of waste outlets	26 3/4 (680)	26 3/4 (680)	26 3/4 (680)	26 3/4 (680)	26 3/4 (680)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
<b>Refrigeration Outlet</b> 					
Back of case to center of refrigeration outlet	21 1/4 (540)	21 1/4 (540)	21 1/4 (540)	21 1/4 (540)	21 1/4 (540)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)	8 (203)	8 (203)	8 (203)

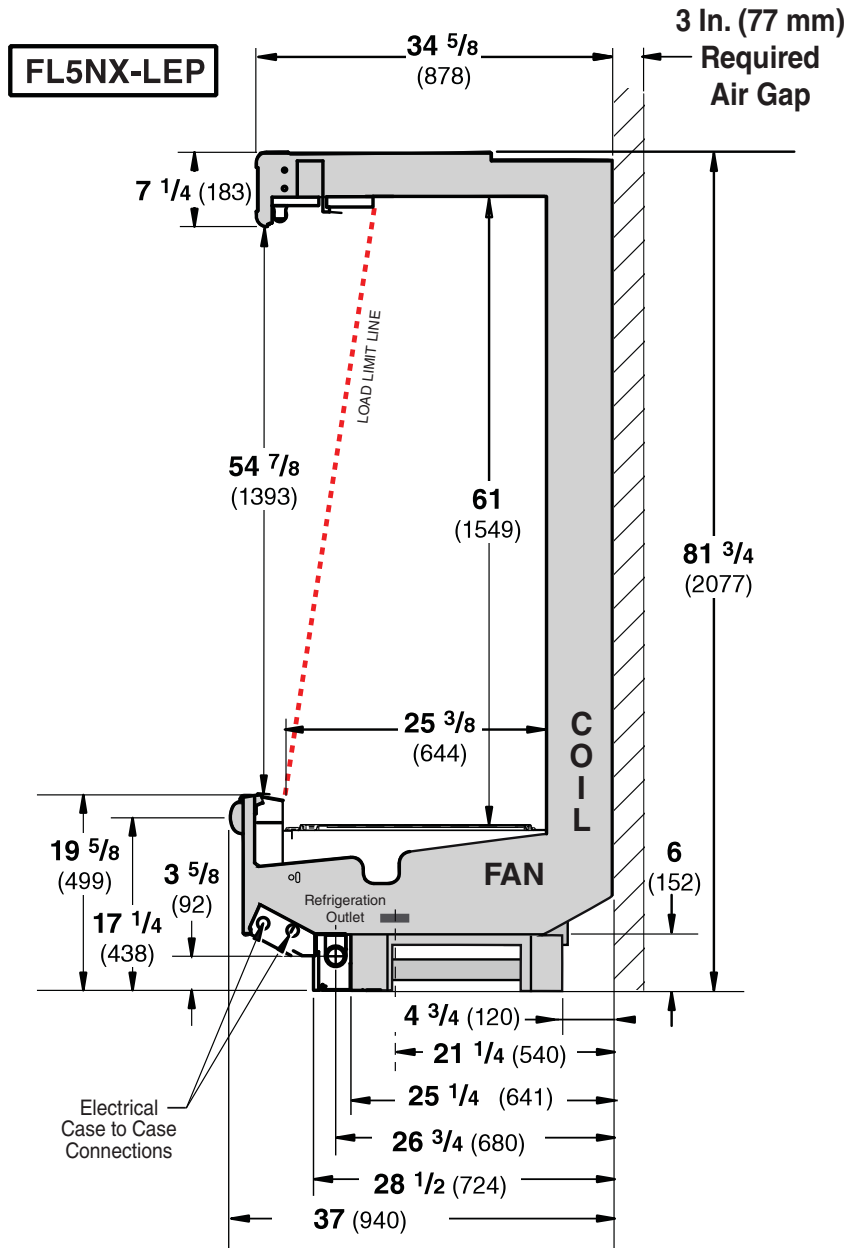
Multi-deck, 5 Display Levels, Low Front, Narrow Footprint



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

**Excel FL5NX-LEP**  
Floral

Dimensions shown as in. and (mm).



**REFRIGERATION DATA<sup>§</sup>**

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

FL5NX-LEP	Unlit
Discharge Air (°F)	35
Evaporator (°F)	28
Unit Sizing (°F)	26

*Btu/hr/ft*

FL5NX-LEP	Parallel	Conventional
UNLIT <sup>‡</sup>	1323	1383

<sup>‡</sup> Add 10 Btu/hr/ft per shelf row for LED fixtures. Add 20 Btu/hr/ft per shelf row for fluorescent lamps.

<sup>§</sup> 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.

**DEFROST DATA**

FL5NX-LEP	
Frequency Hrs	8
Defrost Water (lb/ft/day)	7.0

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

OFFTIME	FL5NX-LEP
Defrost	20

**ELECTRIC OR GAS** Not Recommended

**CONVENTIONAL CONTROLS**

Low Pressure Backup Control	FL5NX-LEP
CI/CO*	21°F / 11°F

Indoor Unit Only, Pressure Defrost Termination*	48°F
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\*Use a Temperature Pressure Chart to determine PSIG conversions.

Estimated Charge **	FL5NX-LEP	
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
10 ft	4.7 lb	75 oz 2.1 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 (8 oz/0.2 kg).

# Excel FL5NX-LEP

Floral

	4 ft	6 ft	8 ft	10 ft	12 ft
Number of Fans – 12W	1	—	2	3	3
Number of Fans – 7W	—	2	—	—	—

## Electrical Data

			Amperes					Watts				
			4 ft	6 ft	8 ft	10 ft	12 ft	4 ft	6 ft	8 ft	10 ft	12 ft
<b>Evaporator Fans</b>												
120V	50/60Hz	Standard Energy Efficient	0.30	0.38	0.60	0.90	0.90	18	28	36	54	54
230V	50/60Hz	Standard Energy Efficient	0.15	0.20	0.30	0.45	0.45	18	28	36	54	54
230V	60Hz	Export	0.33	0.50	0.66	0.99	0.99	50	78	100	150	150
230V	50Hz	Export	0.38	0.56	0.76	1.14	1.14	57	84	114	171	171

## Minimum Circuit Ampacity

120V	50/60Hz	Standard Energy Efficient	0.50	0.58	0.80	1.10	1.10
230V	50/60Hz	Standard Energy Efficient	0.35	0.40	0.50	0.65	0.65
230V	60Hz	Export	0.53	0.70	0.86	1.19	1.19
230V	50Hz	Export	0.58	0.76	0.96	1.34	1.34

<b>Maximum Over Current Protection 120V</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>
Maximum Over Current Protection 230V	15	15	15	15	15

## Standard Lighting (T-8 fluorescent)

1 Row Canopy	0.26	0.51	0.51	0.77	0.77	30	59	59	85	85
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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	0.26	0.51	0.51	0.77	0.77	30	59	59	85	85
Additional 2 Row Canopy	0.51	1.02	1.02	1.54	1.54	59	118	118	170	170
Additional 3 Row Canopy	0.77	1.53	1.53	2.31	2.31	89	177	177	255	255
1 Row Rail Light	0.26	0.51	0.51	0.77	0.77	30	59	59	85	85

**HUSSMANN RECOMMENDS AGAINST FLUORESCENT SHELF LIGHTING IN FLORAL APPLICATIONS.**

## EcoShine II Canopy

EcoShine II	0.16	0.26	0.32	0.42	0.48	19.3	31.6	38.6	50.9	58.0
EcoShine II HO	0.22	0.33	0.44	0.55	0.66	26.5	39.5	53.0	66.0	79.4

<b>EcoShine II Rail Light — 1 Row</b>	0.08	0.12	0.16	0.20	0.25	9.9	14.1	19.8	24.0	29.7
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## EcoShine II Shelves

1 Row of Shelves	0.08	0.12	0.16	0.20	0.25	9.9	14.1	19.8	24.0	29.7
2 Rows of Shelves	0.16	0.23	0.33	0.40	0.49	19.8	28.2	39.5	48.0	59.3
3 Rows of Shelves	0.25	0.35	0.49	0.60	0.74	29.7	42.3	59.3	71.9	89.0
4 Rows of Shelves	0.33	0.47	0.66	0.80	0.99	39.5	56.4	79.1	95.9	118.6
5 Rows of Shelves	0.41	0.59	0.82	1.00	1.24	49.4	70.5	98.9	119.9	148.3

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> <sup>1</sup> (Cu Ft/Ft)	9.23 ft <sup>3</sup> /ft (0.86 m <sup>3</sup> /m)
<i>AHRI Total Display Area</i> <sup>2</sup> (Sq Ft/Ft)	4.57 ft <sup>2</sup> /ft (1.39 m <sup>2</sup> /m)
<i>Shelf Area</i> <sup>3</sup> (Sq Ft/Ft)	7.64 ft <sup>2</sup> /ft (2.33 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 (3) rows of 16-inch shelves.

**ESTIMATED SHIPPING WEIGHT <sup>4</sup>**

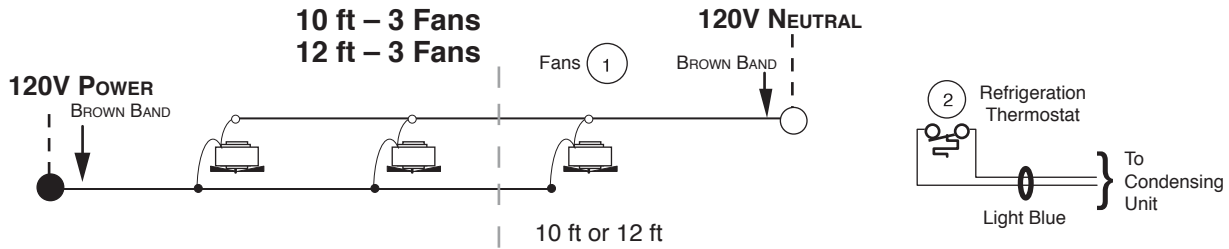
Case	<i>4 ft</i>	<i>6 ft</i>	<i>8 ft</i>	<i>10 ft</i>	<i>12 ft</i>	<b>Solid End</b>
<b>lb (kg)</b>	700 (318)	900 (408)	1200 (544)	1400 (635)	1500 (680)	<i>(each)</i> 100 (45)

<sup>4</sup> Actual weights will vary according to optional kits included.

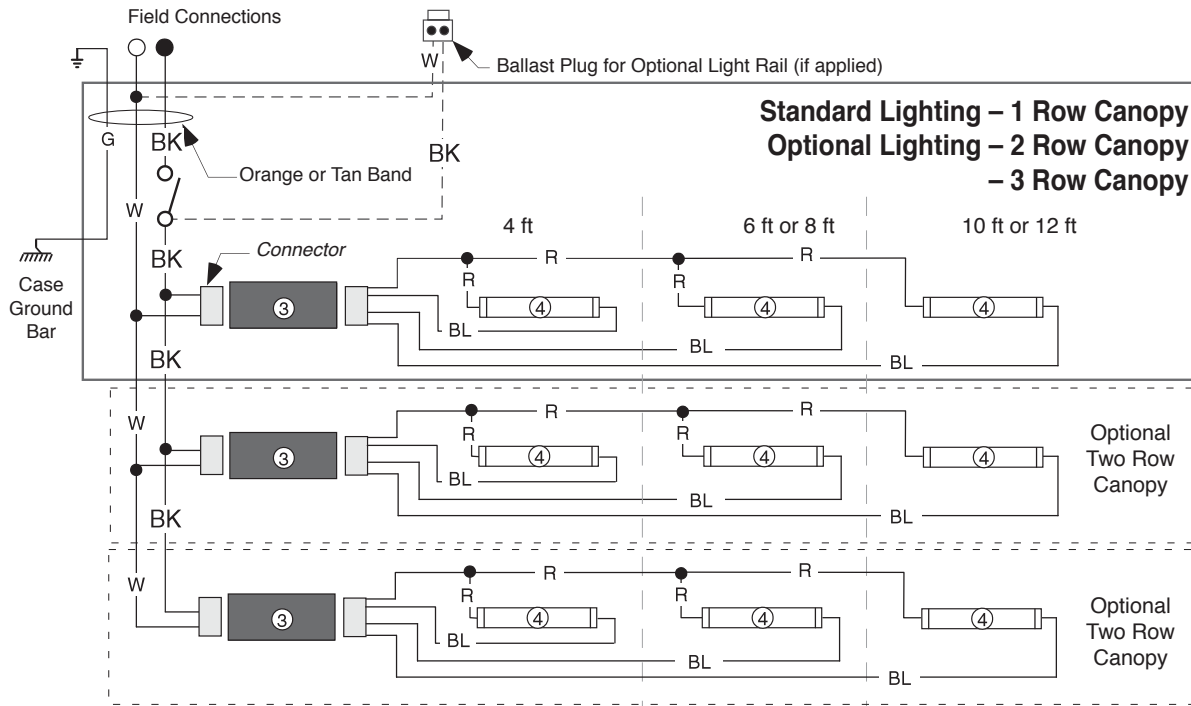
# Fan Wiring Offtime Defrost

## 1, 2 & 3 Fans

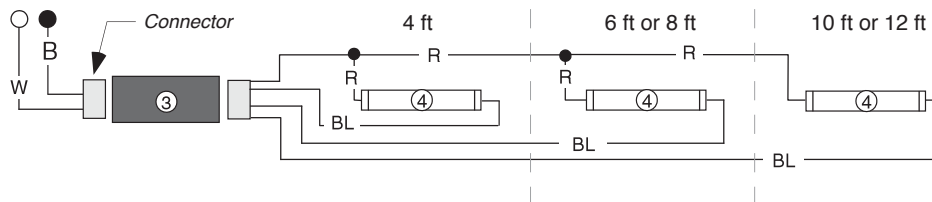
- 4 ft – 1 Fan
- 6 ft – 2 Fans
- 8 ft – 2 Fans
- 10 ft – 3 Fans
- 12 ft – 3 Fans



# Canopy Light Circuits— Fluorescent Fixtures



## Optional Lighting – 1 Row Rail



### WARNING

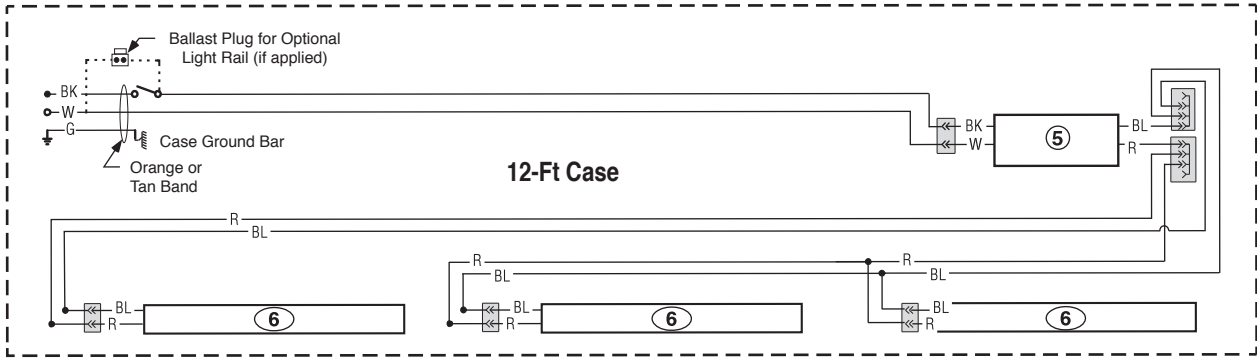
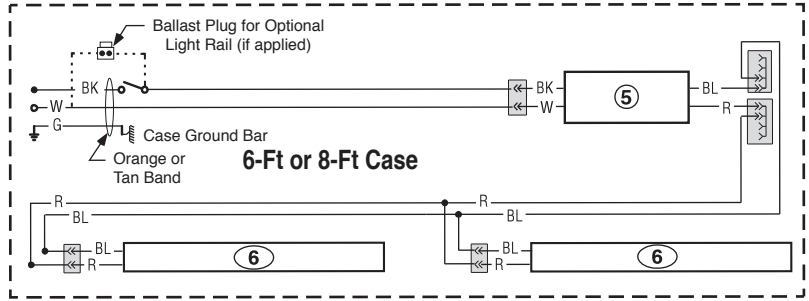
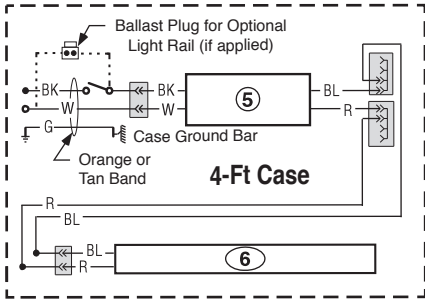
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

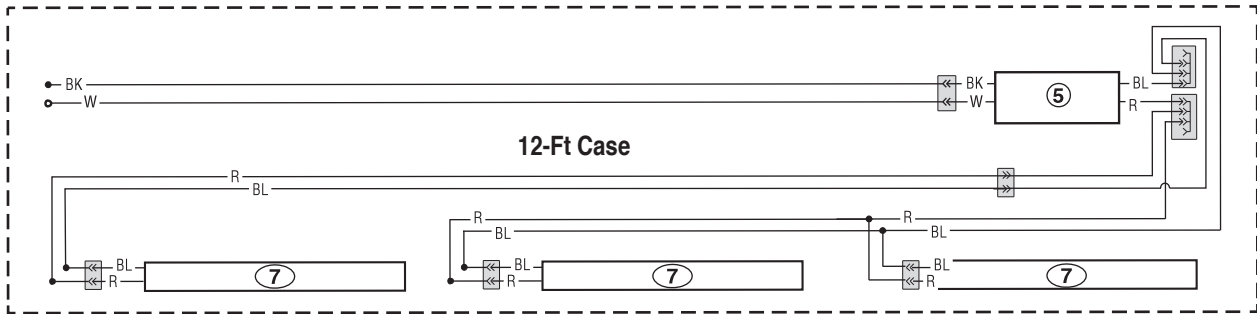
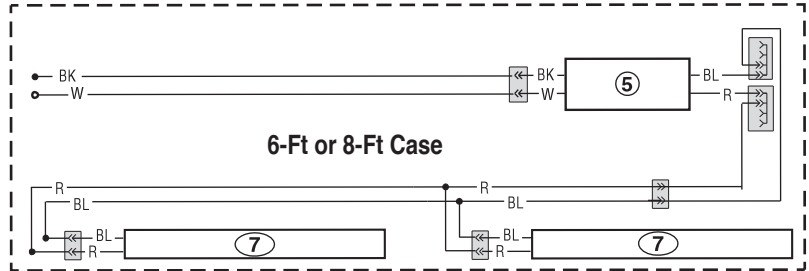
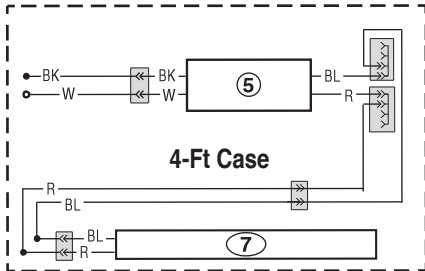
- R = Red
- Y = Yellow
- G = Green
- BL = Blue
- BK = Black
- W = White
- = 120V POWER
- = 120V NEUTRAL
- ⊥ = FIELD GROUND
- ≡≡≡ = CASE GROUND

# Optional Canopy and Rail Light Circuits — LED Fixtures

## EcoShine II LED Canopy Lighting – 1 Row



## EcoShine II LED Rail Lighting – 1 Row



### WARNING

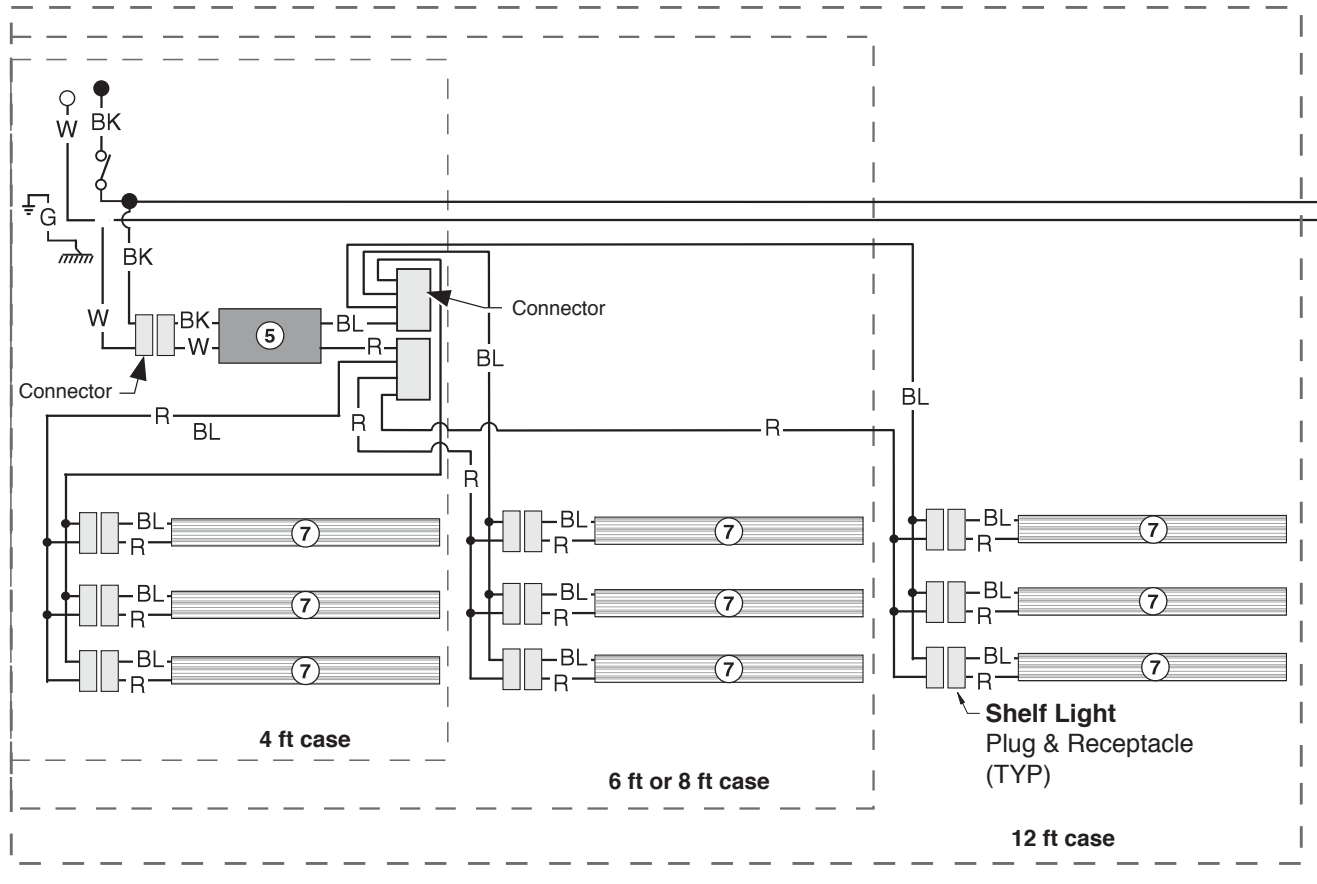
All components must have mechanical ground, and the merchandiser must be grounded.

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

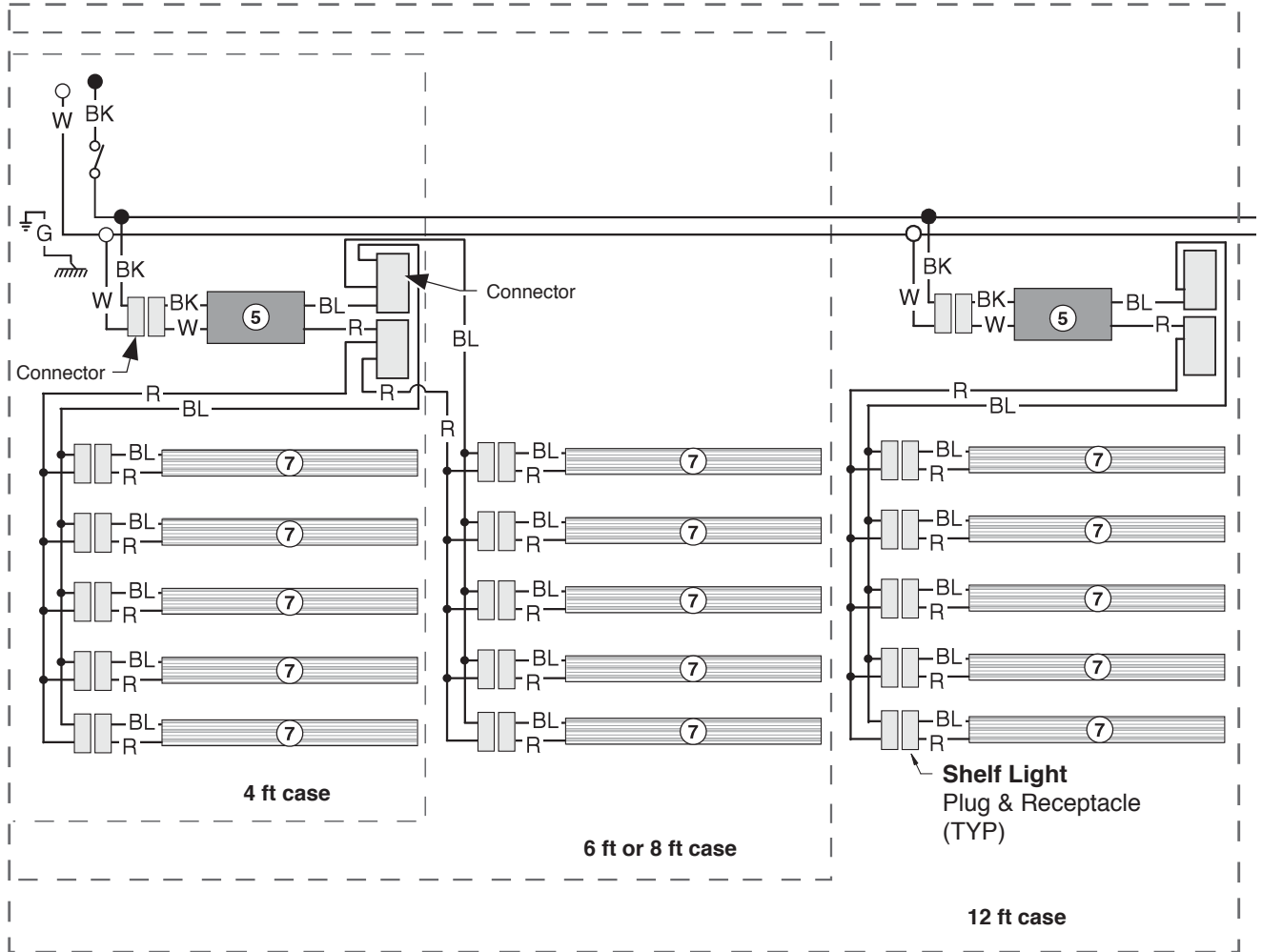
⊥ = FIELD GROUND

⏏ = CASE GROUND



# Optional Shelf Lighting LED Fixtures

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



### WARNING

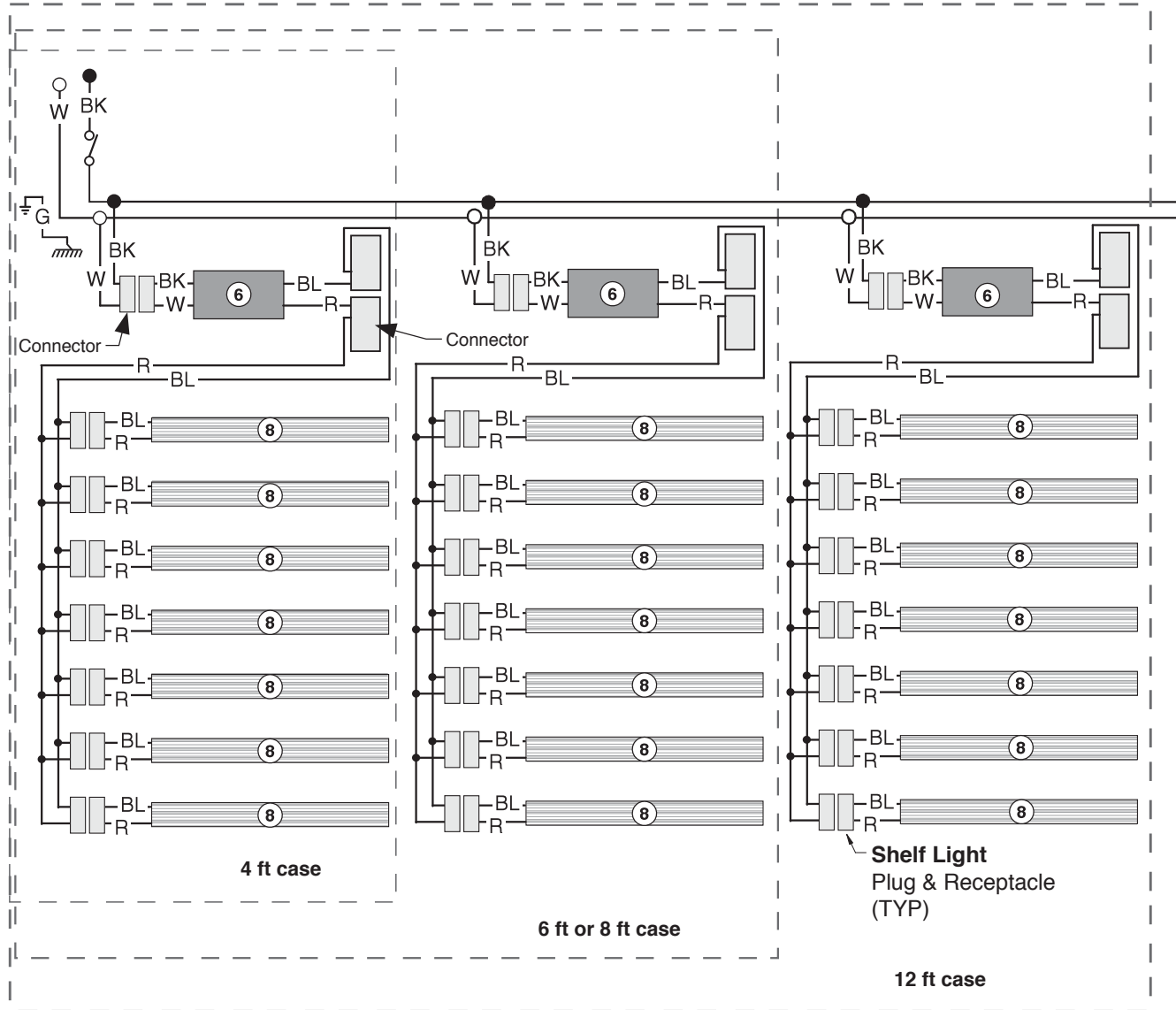
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red      G = Green      BL = Blue      BK = Black      W = White  
 ● = 70V POWER      ○ = 70V NEUTRAL      ⊥ = FIELD GROUND      ⏏ = CASE GROUND

# Optional Shelf Lighting LED Fixtures

## Optional Shelf Harness and LED Light Circuits for 6 or 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

● = 80V POWER    ○ = 80V NEUTRAL    ⊥ = FIELD GROUND    ≡ = CASE GROUND