

# HUSSMANN<sup>®</sup> Excel

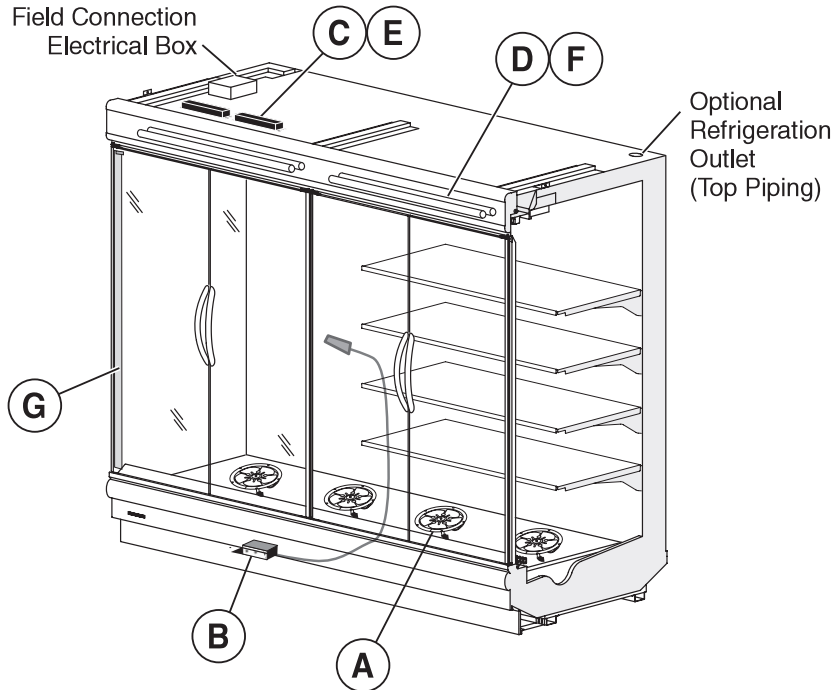


**DD5X-ULP**  
Technical Data Sheet  
P/N 0515395\_K

**NSF<sup>®</sup> Certified**

**July 2018**

**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.

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

Item	Part #	Description	Wiring Item #
<b>FAN ASSEMBLIES</b>			
<b>4 Ft, 8 Ft &amp; 12 Ft</b>			
A.	<b>12W Standard Energy Efficient Fan Assembly</b>	(1)	
	0477655	Fan Motor, Evaporator (MO.4410546)	
	0461805	Fan Blade (FB.4780446)	
<b>6 Ft Only</b>			
A.	<b>7W Standard Energy Efficient Fan Assembly</b>	(1)	
	0477654	Fan Motor, Evaporator (MO.4410545)	
	0142780	Fan Blade (FB.0142780)	
<b>THERMOSTATS</b>			
B.	Optional Adjustable Refrigeration Thermostat	(2)	

Item	Part #	Description	Wiring Item #
<b>LAMPS AND BALLASTS</b>			
C.	Ballast, Electronic	(3)	
	0480130	2 lamps (BA.4481676)	
	0480131	3 lamps (BA.4481654)	
	0480132	4 lamps (BA.4481677)	1
D.	Fluorescent Lamp	(4)	
		<i>Replace with like fixtures</i>	
<b>LED FIXTURES AND POWER SUPPLY</b>			
E.	0501213	Power Supply (EP.4481861)	(5)
F.	LED Canopy Fixture	(6)	
		<i>Replace with like fixtures</i>	
G.	LED Mullion Fixture	(7)	
		<i>Replace with like fixtures</i>	

Data sheet-Excel-DD5X-ULP

Note: Revision K: Updated lighting energy values. Other changes marked with a bar, circle or underline.

# Engineering Plan Views

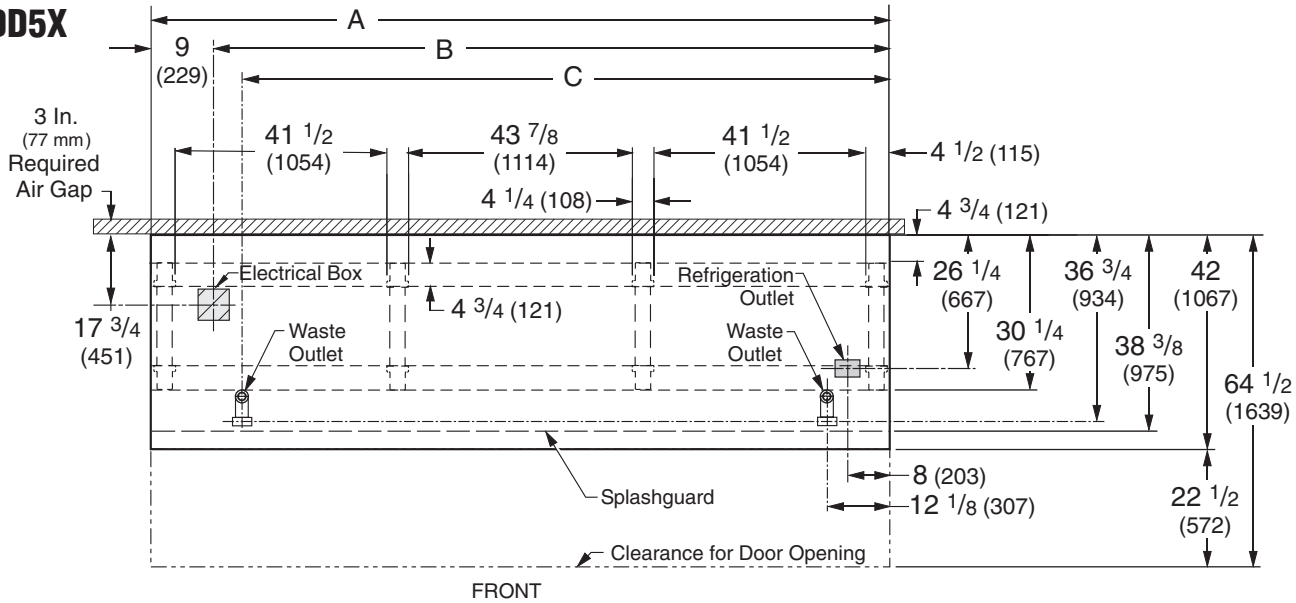
PHYSICAL DATA	
Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	7/8

## Dairy & Delicatessen

Dimensions shown as in. and (mm).

07-2009

### DD5X



**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.**

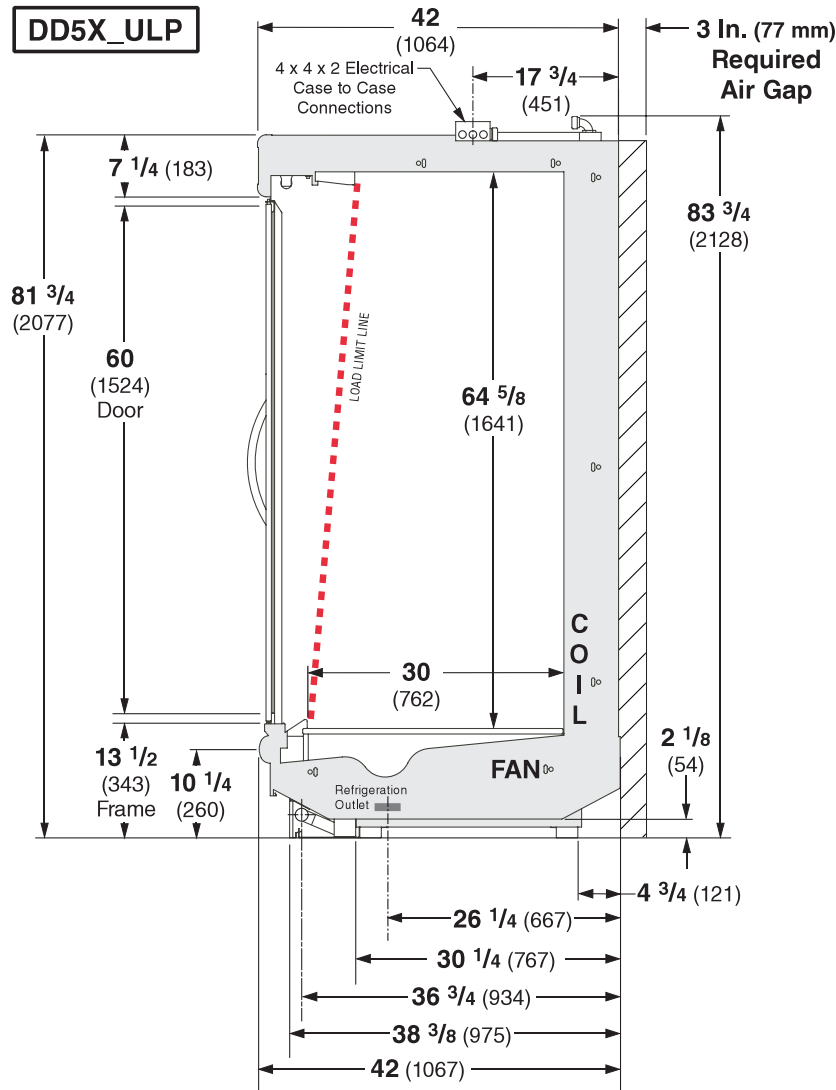
	4 ft	6 ft	8 ft	12 ft
<b>General</b>				
<b>(A) Case Length</b> <i>(without ends or partitions)</i>	48 3/8 (1229)	72 3/8 (1838)	96 3/8 (2448)	144 1/2 (3670)
<i>(Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)</i>				
Maximum O/S dimension of case back to front <i>(includes bumper)</i>	42 (1064)	42 (1064)	42 (1064)	42 (1064)
Back of case to front of splashguard	33 1/2 (851)	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)	30 1/4 (768)
Distance between edges of external legs and center legs	NA	29 1/2 (750)	41 1/2 (1054)	41 1/2 (1054)
Distance between edges of center legs	NA	NA	NA	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)
<b>Electrical Service</b> <input checked="" type="checkbox"/> <i>(Electrical Field Wiring connection point located on top of case)</i>				
<b>(B) RH End of case to center of stub up area</b>	36 1/4 (921)	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)	24 (612)
Length of electrical wireway <b>Wireway</b>	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)
<b>(C) RH End of case to LH end of wireway</b>	42 1/8 (1070)	66 1/8 (1680)	90 1/8 (2289)	138 1/4 (3511)
<b>Waste Outlets</b> <i>(One each end)</i> <input checked="" type="checkbox"/>				
<b>(D) RH End of case to the center of LH waste outlet</b>	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	31 5/8 (804)	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)	1 1/4 (32)
<b>Refrigeration Outlet</b> <input checked="" type="checkbox"/>				
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 with Doors, 5 Display Levels, Low Front



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 in. and (mm).



**ALL FIELD WIRING CONNECTION POINTS ARE ABOVE THE CASE.**

Estimated Charge****	DD5X-ULP		
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 (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.

**Excel DD5X-ULP Dairy & Delicatessen**

**REFRIGERATION DATA**

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

DD5X-ULP§	DAIRY DELI		
	UNLIT	LIT*	PEG**
Discharge Air °F	39	37	37
Evaporator °F	34	32	32
Unit Sizing °F	32	30	30
DD5X-ULP§	FRESH MEAT		
	UNLIT	LIT‡	
Discharge Air °F	35	33	
Evaporator °F	30	28	
Unit Sizing °F	28	26	

\* Lit data is for canopy and mullion lighting. Hussmann recommends against using lit shelves with EcoVision Doors.  
 \*\* Hussmann Peg Shelves (Deli only)  
 § 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		
	DD5X-ULP	UNLIT	PEG* MEAT
PARALLEL	295	331	339
CONVENTIONAL	304	341	350

‡ Add 10 Btu/hr/ft for lit.

**DEFROST DATA**

Frequency Hr 24  
 Defrost Water (lb/ft/day) 1.0  
 (± 15% based on case configuration and product loading).

OFFTIME	DD5X-ULP
Time (minutes)	60

ELECTRIC OR GAS Not Recommended

**CONVENTIONAL CONTROLS**

Low Pressure Backup Control  
 CI/CO\*\*\* DD5X-ULP  
 35°F / 25°F

Indoor Unit Only, Pressure Defrost Termination\*\*\* 40°F

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

# Excel DD5X-ULP

## Dairy & Delicatessen

### Electrical Data

	4 ft	6 ft	8 ft	12 ft				
Number of Fans – 12W	1	—	2	3				
Number of Fans – 7W	—	2	—	—				
	Amperes				Watts			
	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
<b>Evaporator Fans</b>								
120V 50/60Hz Standard Energy Efficient	0.30	0.38	0.60	0.90	18	28	36	54
230V 50/60Hz Standard Energy Efficient	0.15	0.20	0.30	0.45	18	28	36	54
230V 60Hz Export	0.33	0.50	0.66	0.99	50	78	100	150
230V 50Hz Export	0.38	0.56	0.76	1.14	57	84	114	171
<b>Minimum Circuit Ampacity</b>								
120V 50/60Hz Standard Energy Efficient	0.50	0.58	0.80	1.10				
230V 50/60Hz Standard Energy Efficient	0.35	0.40	0.50	0.65				
230V 60Hz Export	0.53	0.70	0.86	1.19				
230V 50Hz Export	0.58	0.76	0.96	1.34				
<b>Maximum Over Current Protection 120V</b>								
Maximum Over Current Protection 120V	20	20	20	20				
<b>Maximum Over Current Protection 230V</b>								
Maximum Over Current Protection 230V	15	15	15	15				
<b>Standard Lighting (T-8 fluorescent)</b>								
1 Row Canopy	0.26	0.51	0.51	0.77	30	59	59	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.								
<b>Optional Lighting (T-8 fluorescent)</b>								
2 Row Canopy	0.51	1.02	1.02	1.54	59	118	118	170
<b>EcoShine II Canopy</b>								
EcoShine II	0.16	0.26	0.32	0.48	19.3	31.6	38.6	58.0
EcoShine II HO	0.22	0.33	0.44	0.66	26.5	39.5	53.0	79.4
<b>Shelf</b>								
None								
<b>Mullion</b>								
EcoShine II 48-in.	0.23	0.40	0.40	0.57	27.3	47.7	47.7	68.2

120V Lighting Circuit Total = Standard Lighting + Total Optional Lighting

120V EcoShine LED Lighting Circuit Total = Total Canopy Lighting + Optional Mullion 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)	9.39 ft <sup>3</sup> /ft (0.87 m <sup>3</sup> /m)
<i>AHRI Total Display Area</i> <sup>2</sup> (Sq Ft/Ft)	5.00 ft <sup>2</sup> /ft (1.52 m <sup>2</sup> /m)
<i>Shelf Area</i> <sup>3</sup> (Sq Ft/Ft)	9.89 ft <sup>2</sup> /ft (3.02 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 (4) rows of 22-inch shelves.

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

<b>Case</b>	<b>4 ft</b>	<b>6 ft</b>	<b>8 ft</b>	<b>12 ft</b>	<b>Solid End (each)</b>
<b>lb (kg)</b>	860 (390)	1070 (485)	1310 (594)	1560 (708)	100 (45)

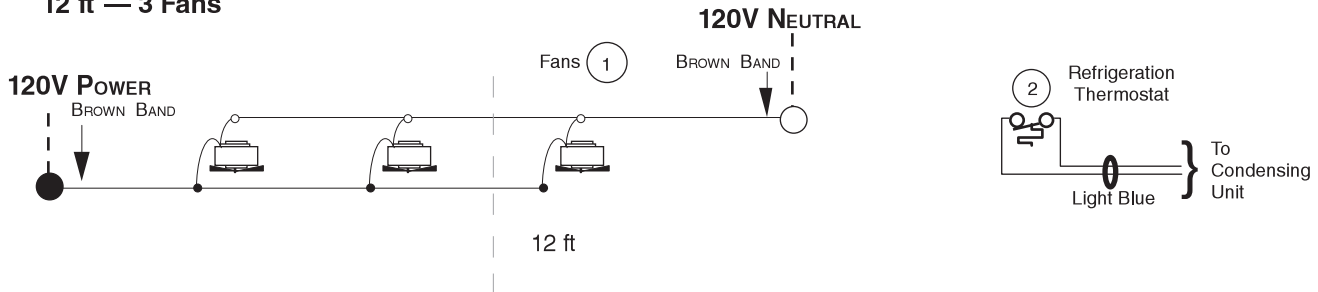
<sup>4</sup> Actual weights will vary according to optional kits included.

# Fan Wiring

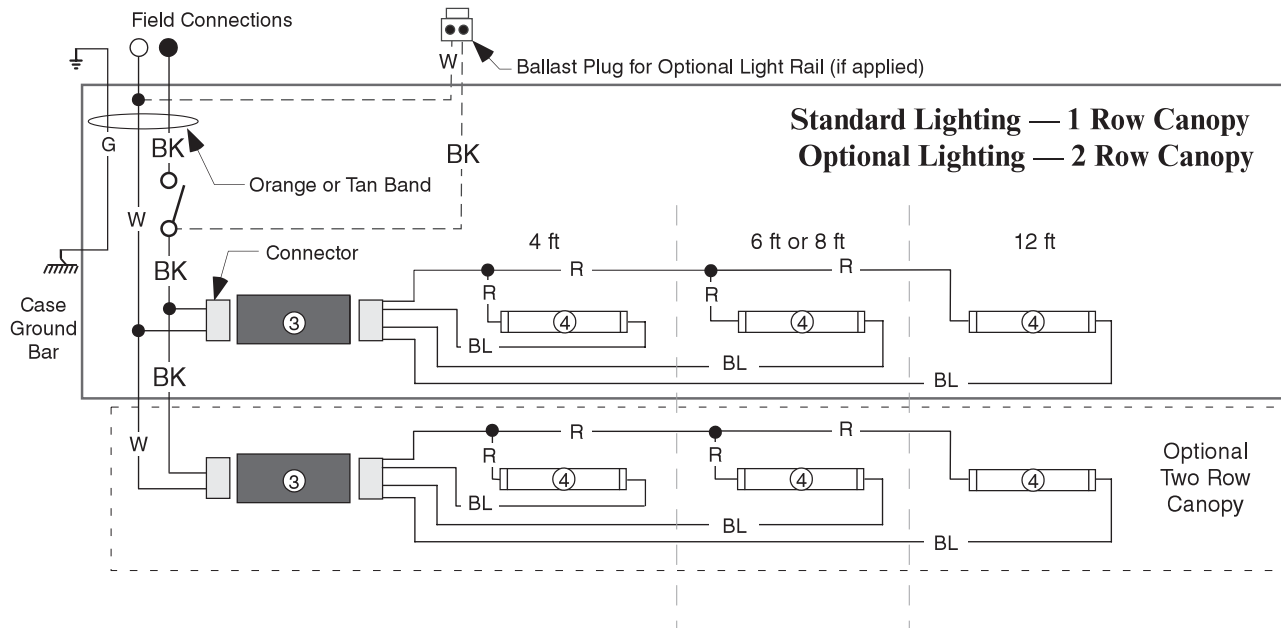
## Offtime Defrost

### 1, 2 & 3 Fans

- 4 ft — 1 Fan
- 6 ft — 2 Fans
- 8 ft — 2 Fans
- 12 ft — 3 Fans



# Fluorescent Canopy Light Circuits



### WARNING

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

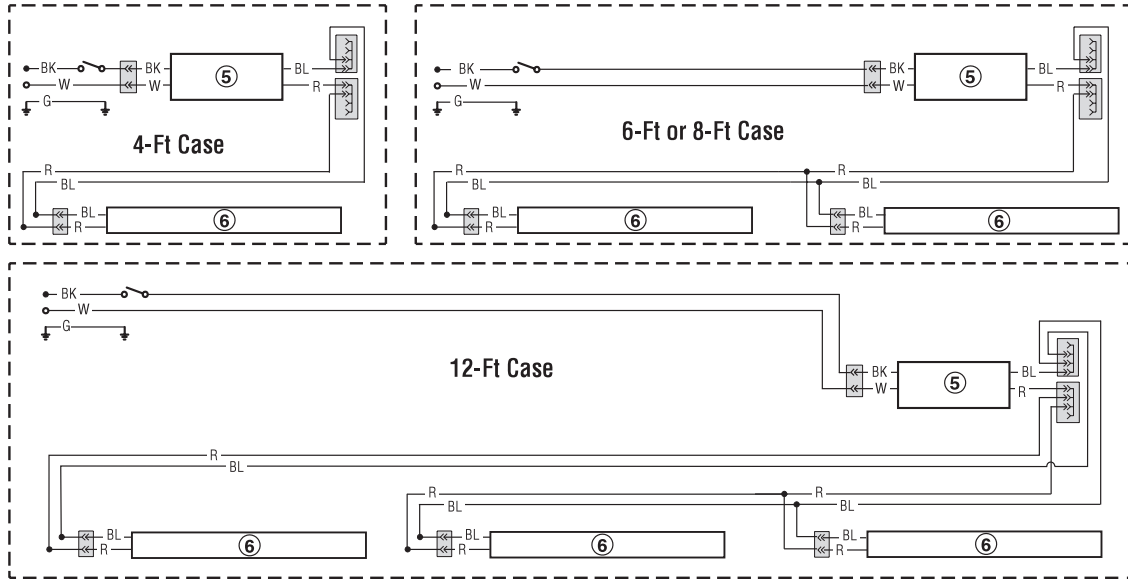
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND ≡ = CASE GROUND

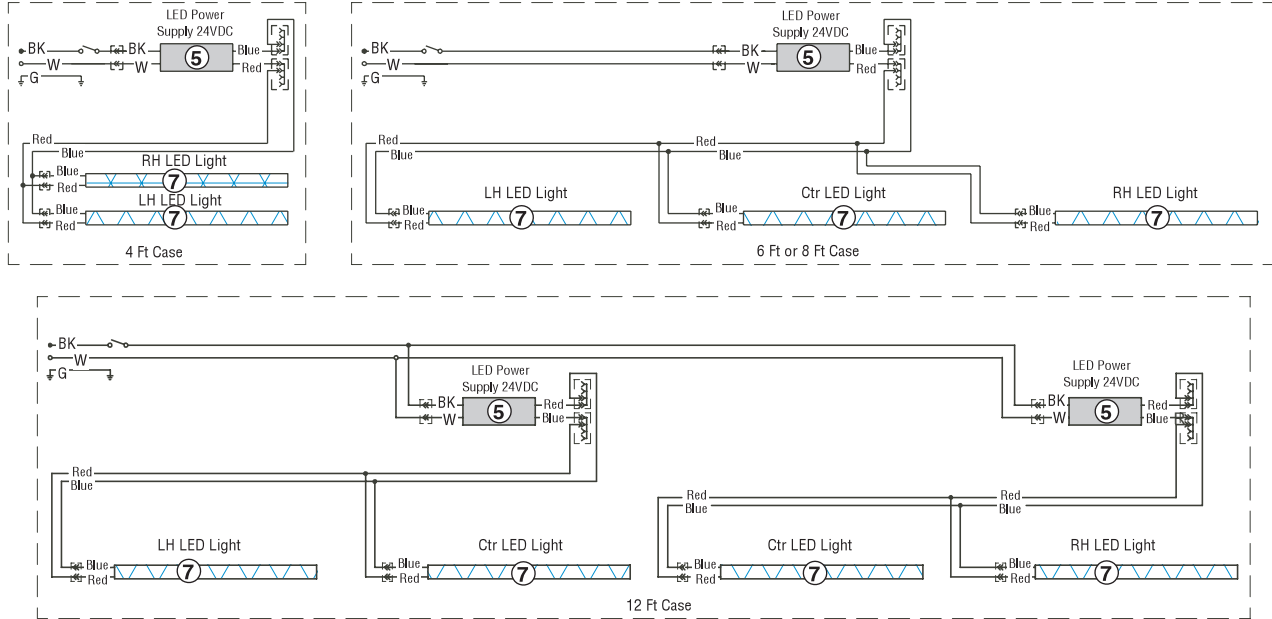
## Optional Canopy Lighting LED Fixtures

### EcoShine II LED Canopy Lighting — 1 Row



## Optional Mullion Lighting LED Fixtures

### LED Mullion Lighting



### WARNING

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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