

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, AND THERMOSTATS</b>				<b>HEATERS (CONTINUED)</b>			
A.	4W Standard Energy Efficient Fan Assembly 0477653	Fan Motor, Evaporator (MO.4410544)	(1)		120V Drip Pan Defrost Heaters, Koolgas		(7)
	0521166	Fan Blade (FB.4780611)			0488967 4 ft case (HE.4850641)		
B.	Optional Adjustable Refrigeration Thermostat		(2)		0465906 6 ft case (HE.4850628)		
C.	0398557	Defrost Termination Thermostat (Front/Electric Defrost only) (CT.4440611)	(3)	H.	0465907 8 ft case (HE.4850622)		
D.	0398558	Defrost Termination Thermostat (Rear/Electric Defrost only) (CT.4481088)	(3)		0465908 12 ft case (HE.4850623)		
E.	0481370	Heater Switch (Koolgas Defrost only) (CT.4440738)	(4)				
					H. Discharge Nosing Anti-sweat Heaters		(8)
					0495009 4 ft case (HE.4851259)		
					0524422 6 ft case (HE.4851260)		
					0524423 8 ft case (HE.4851261)		
					0524424 12 ft case (HE.4851262)		
				J.	Return Air Nosing Anti-sweat Heaters		(9)
					0524417 4 ft case (HE.4851255)		
					0524418 6 ft case (HE.4851256)		
					0524419 8 ft case (HE.4851257)		
					0524420 12 ft case (HE.4851258)		
<b>HEATERS</b>				<b>GLASS LID PARTS ARE LISTED ON PAGE 5.</b>			
F.	208V Evaporator Defrost Heaters		(5)	<b>OPTIONAL LED FIXTURES AND POWER SUPPLY</b>			
	3016520 4 ft case (HE.4850637)			K.	0501213 Power Supply (EP.4481861)		(10)
	3016522 6 ft case (HE.4850620)			L.	LED Fixture		(11)
	3016524 8 ft case (HE.4850603)						
	3016527 12 ft case (HE.4850571)						
	208V Drip Pan Defrost Heaters, Electric		(6)				
	0481865 4 ft case (HE.4850638)						
	0444300 6 ft case (HE.4850609)						
	0462160 8 ft case (HE.4850636)						
	0444296 12 ft case (HE.4850572)						

Data sheet-Excel FW-L

Note: Revision E: Added high glide refrigerant note. Other changes marked by bar, underline or circle.

# Engineering Plan Views

## PHYSICAL DATA

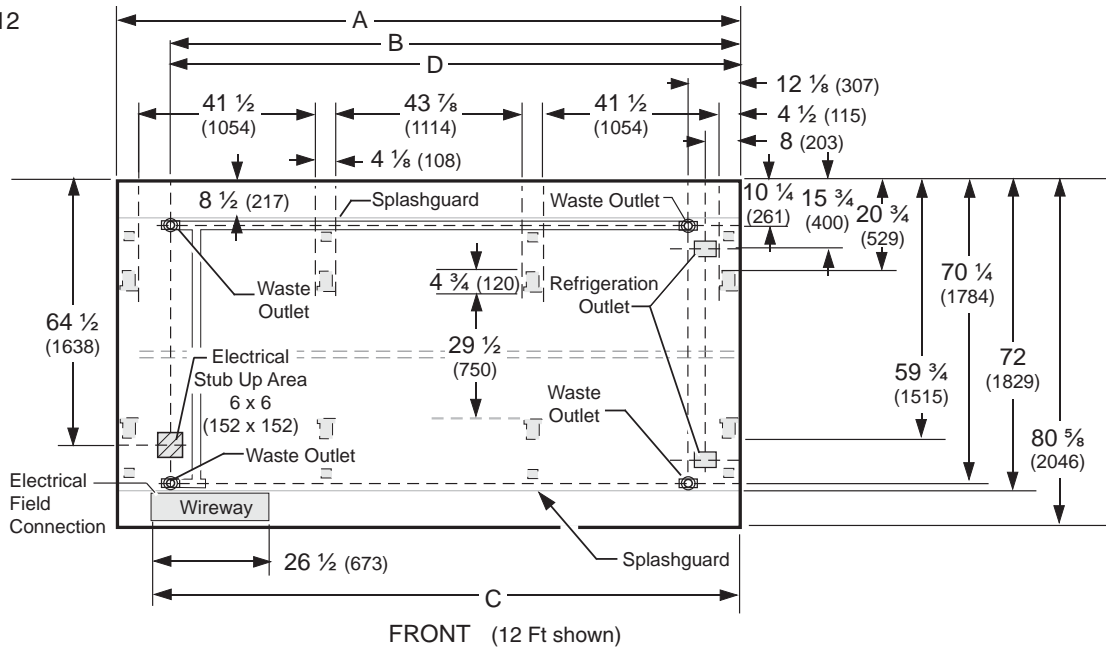
Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	5/8

Low / Medium Temperature

Wide Island

Dimensions shown as inches & (mm).

02-2012



	4 ft	6 ft	8 ft	12 ft
<b>General</b>				
<b>(A)</b> Case Length ( <i>without ends or partitions</i> )	48 1/4 (1226)	73 3/4 (1874)	96 3/8 (2448)	144 1/2 (3670)
<i>(Each end and insulated partition adds 2 in. (51 mm) to case line up.)</i>				
Maximum O/S dimension of case back to front ( <i>includes bumper</i> )	80 5/8 (2046)	80 5/8 (2046)	80 5/8 (2046)	80 5/8 (2046)
Back of case to front of splashguard	72 (1829)	72 (1829)	72 (1829)	72 (1829)
Back of case to O/S edge of front leg	59 3/4 (1515)	59 3/4 (1515)	59 3/4 (1515)	59 3/4 (1515)
Distance between edges of external legs and center legs	NA	30 1/4 (768)	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	12 3/8 (312)	12 3/8 (312)	12 3/8 (312)	12 3/8 (312)
<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 1/8 (918)	61 5/8 (1565)	84 1/4 (2140)	132 3/8 (3363)
Back of case to center of stub up area	64 1/2 (1638)	64 1/2 (1638)	64 1/2 (1638)	64 1/2 (1638)
Length of electrical wireway	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	40 1/2 (1029)	67 1/2 (1715)	90 1/8 (2289)	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 1/8 (918)	61 5/8 (1565)	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	70 1/4 (1784)	70 1/4 (1784)	70 1/4 (1784)	70 1/4 (1784)
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>				
Back of case to center of front refrigeration outlet	64 7/8 (1646)	64 7/8 (1646)	64 7/8 (1646)	64 7/8 (1646)
Back of case to center of rear refrigeration outlet	15 3/4 (400)	15 3/4 (400)	15 3/4 (400)	15 3/4 (400)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)	8 (203)	8 (203)

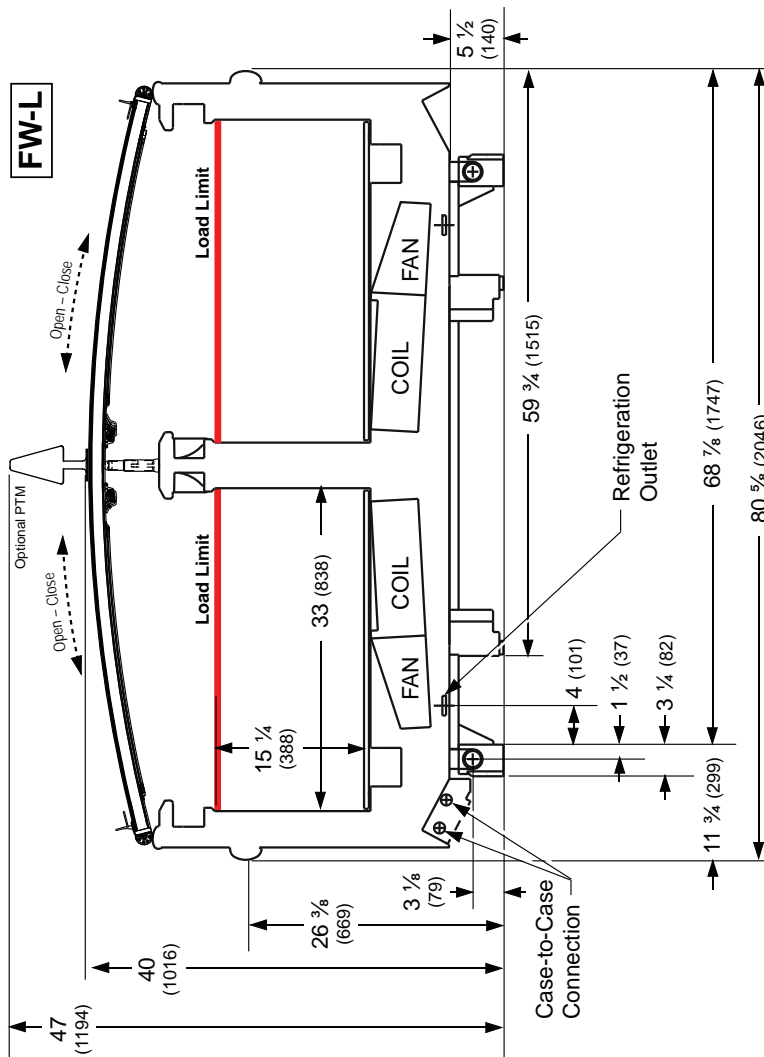
# Wide Island Display with Solid Walls and Lids



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 **FW-L** Low / Medium Temperature

Dimensions shown as inches & (mm).



### REFRIGERATION DATA\*\*§

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

	MED	FF	IC
Discharge Air (°F)	+32	-9	-19
Evaporator (°F)	+25	-12	-24
Unit Sizing (°F)	+23	-15	-27

§ 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*	MED	FF	IC
PARALLEL	145	255	250
CONVENTIONAL	150	260	260

\* Add 20 Btu/hr/ft for LED lighting.

\*\*Dual temperature operation kits are not suitable for ice cream temperature applications.

### DEFROST DATA

	MED	FF	IC
Frequency (hr)	24	24	24
Defrost Water (lb/ft/day)	0.4	0.35	0.3

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

ELECTRIC	MED	FF	IC
Temp Term (°F)	48	48	48
Failsafe (minutes)	30	50	60

GAS	MED	FF	IC
Duration (minutes)	NA	15	18

OFFTIME Not Recommended

### Standard Defrost Thermostat

Close on rise: close 48°F — open 33°F

### CONVENTIONAL CONTROLS

#### Low Pressure Backup Control — CI/CO \*\*

MED	+28°F / +16°F
FF	-15°F / -27°F
IC	-21°F / -33°F

#### Indoor Unit Only, Pressure Defrost Termination\*\*\*

Not Recommended

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

### Estimated Charge \*\*\*\*

4 ft	1.7 lb	27 oz	0.8 kg
6 ft	2.1 lb	34 oz	1.0 kg
8 ft	2.5 lb	40 oz	1.1 kg
12 ft	3.7 lb	59 oz	1.7 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.

<b>Excel FW-L</b> <b>Low / Medium Temperature</b>
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### Electrical Data

			4 ft	6 ft	8 ft	12 ft				
<b>Number of Fans – 4W Evaporator</b>			2	2	4	4				
			Amperes				Watts			
			4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
<b>Evaporator Fans</b>										
120V	60Hz	Standard Energy Efficient	0.24	0.24	0.48	0.48	16	16	32	32
230V	60Hz	Standard Energy Efficient	0.12	0.12	0.24	0.24	16	16	32	32
230V	60Hz	Export	0.30	0.30	0.60	0.60	48	48	96	96
230V	50Hz	Export	0.36	0.36	0.72	0.72	54	54	108	108
<b>Anti-sweat Heaters (on fan circuit)</b>										
120V	50/60Hz	Standard	0.67	1.00	1.33	2.00	80	120	160	240
230V	50/60Hz	Export	0.35	0.52	0.70	1.04	80	120	160	240
<b>Minimum Circuit Ampacity</b>										
120V	60Hz	Standard Energy Efficient	1.11	1.68	2.01	2.68				
230V	60Hz	Standard Energy Efficient	0.67	0.84	1.14	1.48				
230V	60Hz	Export	0.85	1.02	1.50	1.84				
230V	50Hz	Export	0.91	1.08	1.62	1.96				
<b>Maximum Over Current Protection 120V</b>			<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>				
Maximum Over Current Protection 230V			15	15	15	15				
<b>208V Electric Defrost</b>			8.75	13.07	15.38	23.07	1820	2720	3200	4800
<b>230V Export Electric Defrost</b>			7.91	11.83	13.91	20.87	1820	2720	3200	4800
<b>120V Koolgas Defrost</b>			2.50	2.67	3.33	6.66	300	320	400	800

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

None

#### Optional Lighting

LED	120V	50/60Hz	0.42	0.56	0.70	0.98	50	67	84	118
LED	230V	50/60Hz	0.22	0.29	0.36	0.51	50	67	84	118

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**

<b>Recommended Usable Cube <sup>1</sup> (Cu Ft/Ft)</b>	6.99 ft <sup>3</sup> /ft (0.65 m <sup>3</sup> /m)
<b>AHRI Total Display Area <sup>2</sup> (Sq Ft/Ft)</b>	4.93 ft <sup>2</sup> /ft (1.50 m <sup>2</sup> /m)
<b>Shelf Area <sup>3</sup> (Sq Ft/Ft)</b>	5.50 ft <sup>2</sup> /ft (1.68 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 NONE.

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

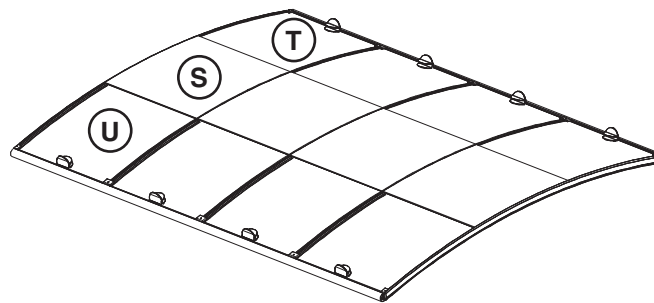
Case	4 ft	6 ft	8 ft	12 ft	Solid End (each)
<b>lb (kg)</b>	1103 (501)	1340 (609)	1590 (722)	1880 (855)	75 (34)

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

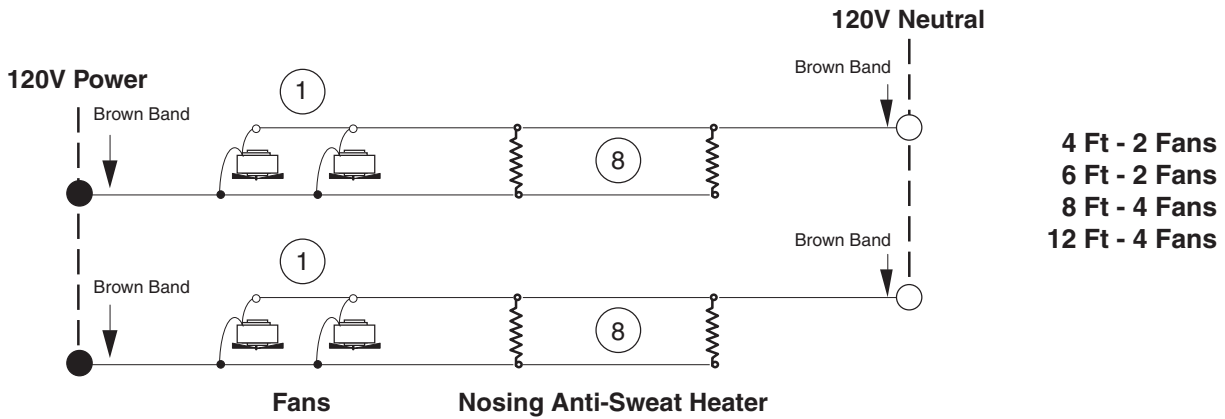
**Glass Lid Replacement Parts**

**FW4L, FW8L, FW12L GLASS ASSEMBLIES**

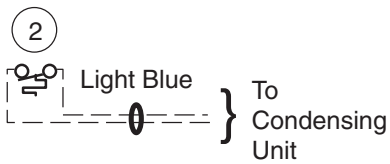
- S. 0524247 Top Glass - Fixed B00156 (GL.4998357)
- T. 0524248 Middle Glass with Handle B00157 (GL.4998358)
- U. 0524249 Bottom Glass with Handle B00158 (GL.4998359)



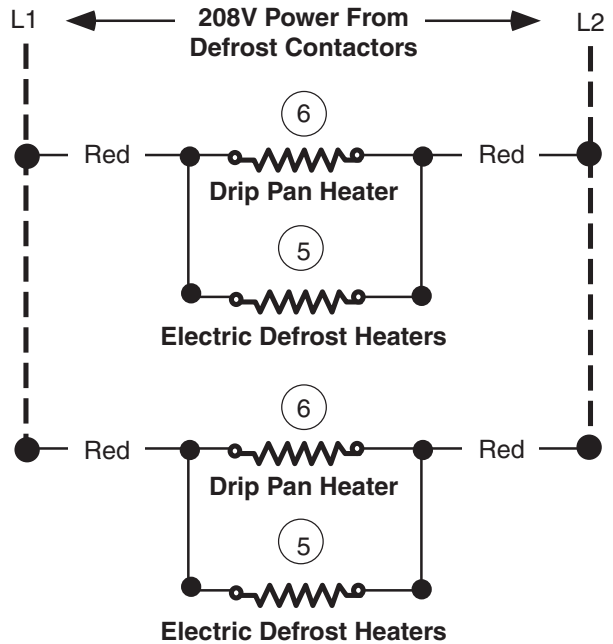
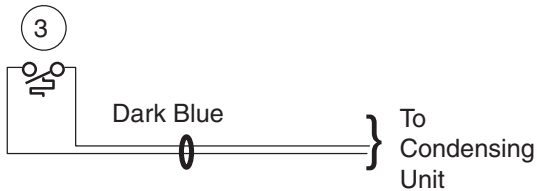
# Electric Defrost – Standard



## Refrigeration Thermostat (Optional)



## Defrost Termination Thermostat



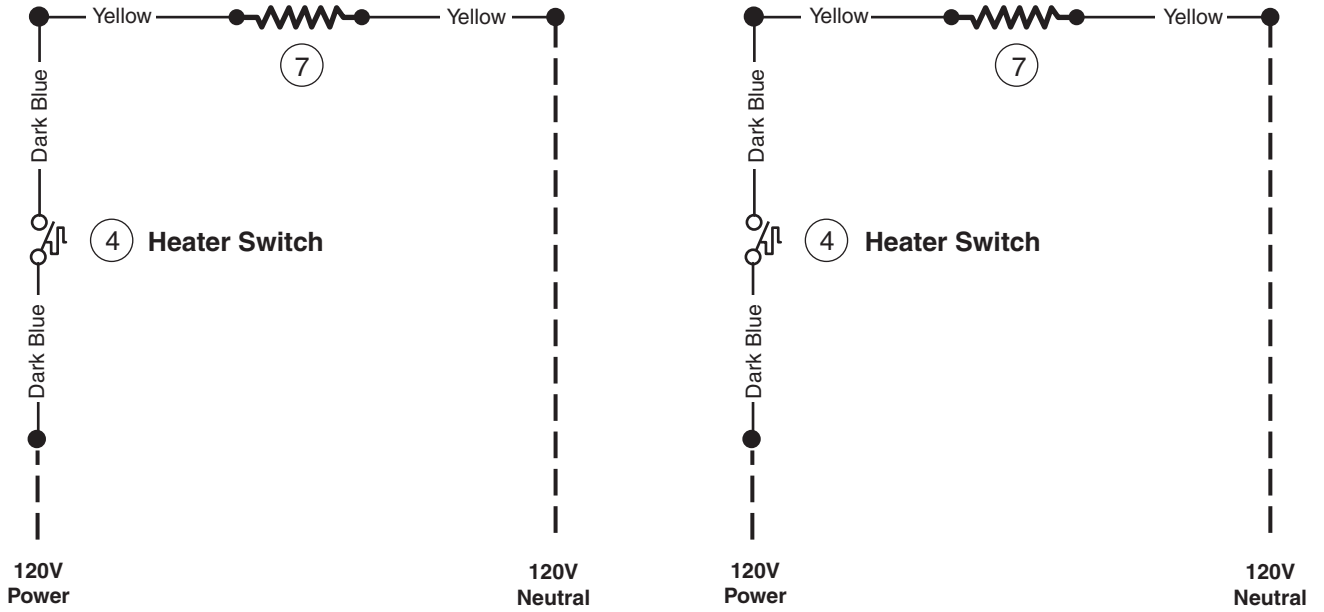
## WARNING

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

Circled Number = Parts List Item Numbers

# Gas Defrost – Optional

## 120V Drip Pan Heater — Koolgas Only



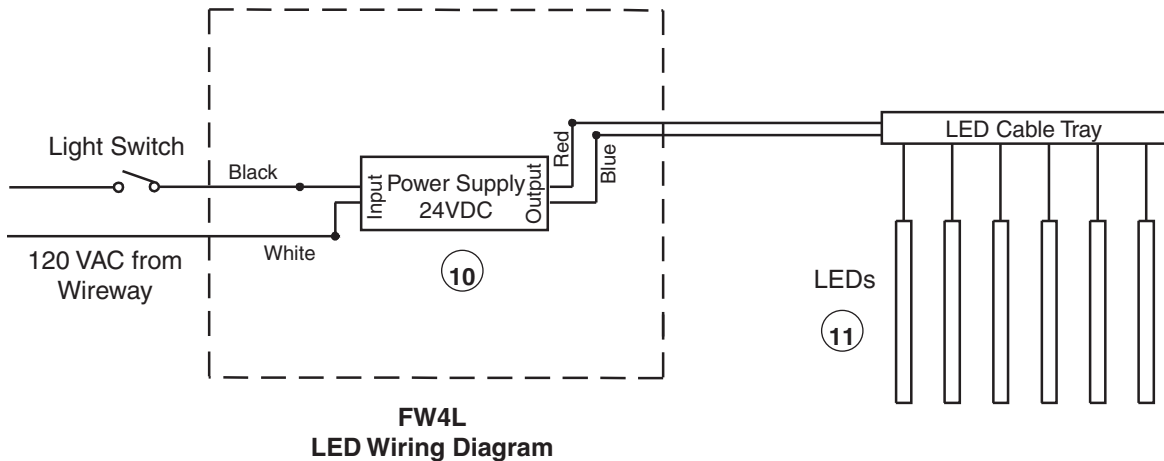
### WARNING

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

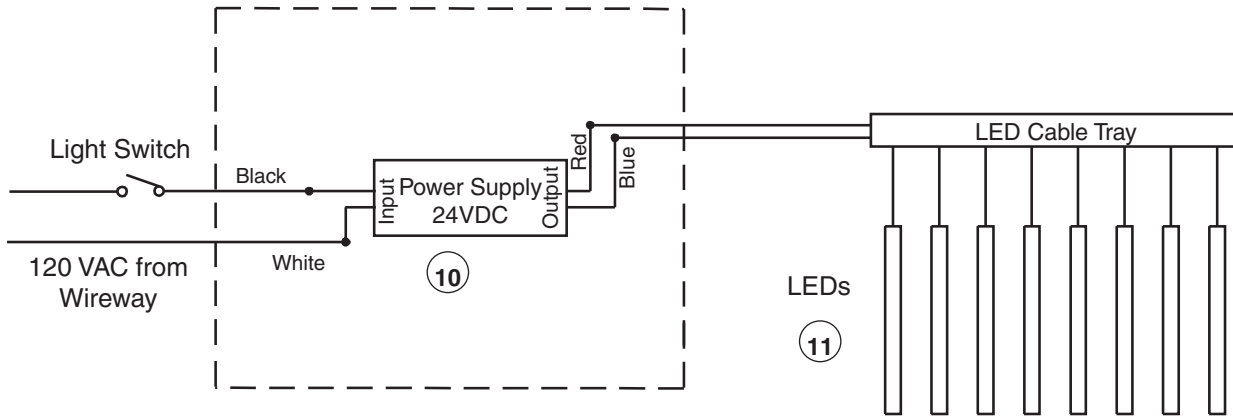
Circled Number = Parts List Item Numbers

Grayed components in 12 foot models only.

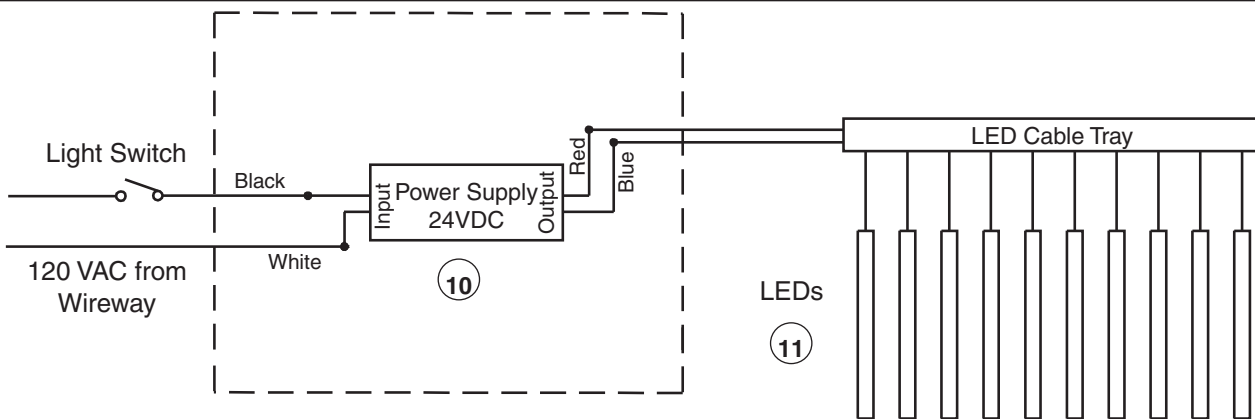
## Optional LED Lighting Wiring Diagrams



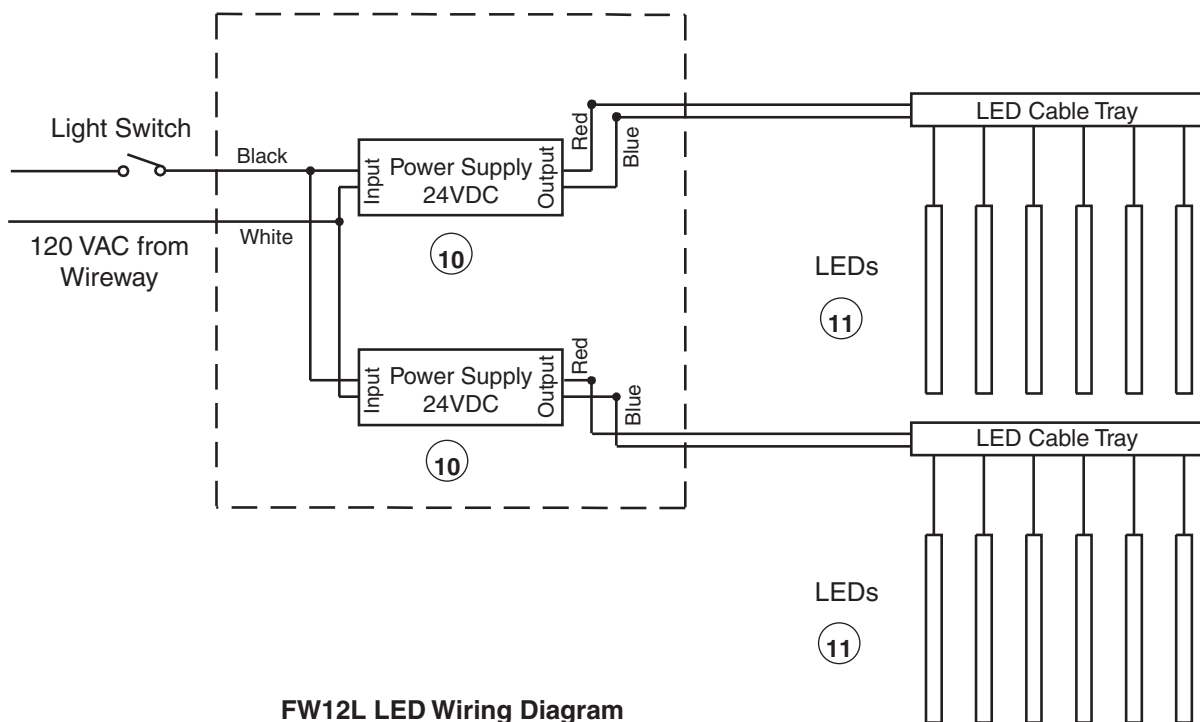
# Optional LED Lighting Wiring Diagrams



**FW6L  
LED Wiring Diagram**



**FW8L  
LED Wiring Diagram**



**FW12L LED Wiring Diagram**