HUSSMANN®

Insight® IM5SL

Meat & Delicatessen

Merchandiser Data Sheet

P/N 0535983_J

NSF® Certified

September 2017

Insight standard field electrical connections are at the top left of the merchandiser

Field Electrical Connection

Fan Speed Selector (when applicable)

Power Supply

*Coil

*Fan

*Thermoexpansion Valve

Mirror

Canopy LED Lights

Shelf LED Lights

Rail LED Lights

DOE 2017 Energy Efficiency Compliant

INTERTEK ETL LISTED C   US

NSF®

*Coils, fans and TXVs are modular with one per 3 or 4 foot section.

Portion of parts removed for clarity.

8 foot merchandiser shown.

NSF Certification

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

Data sheet-Insight IM5SL

Insight **IM5SL**
Meat & Delicatessen

Refrigeration Data [1]

IM5SL		Optimal Shelf Life		Energy Comparison
Application		**Meat**	**NSF Type 2 Ambient**[3]	**AHRI 1200 Rating Point**[4]
Unlit Shelves	Discharge Air °F (°C)	32 (0)	31 (-0.55)	33 (0.55)
	Average Evaporator °F (°C) [2]	28 (-2.22)	27 (-2.77)	29 (-1.66)
	Parallel Btu/hr/ft (Watts/m) [5]	1030 (990)	1345 (1294)	965 (928)
	Conventional Btu/hr/ft (Watts/m) [5]	1125 (1082)	1470 (1414)	1055 (1014)
Lit Shelves	Discharge Air °F (°C)	31 (-0.55)	30 (-1.11)	32 (0)
	Average Evaporator °F (°C) [2]	27 (-2.77)	26 (-3.33)	28 (-2.22)
	Parallel Btu/hr/ft (Watts/m) [5,6]	1045 (1005)	1365 (1313)	980 (942)
	Conventional Btu/hr/ft (Watts/m) [5,6]	1140 (1096)	1490 (1433)	1070 (1029)
Fan Speed[7]	IM5SL6 (8.25")	1400[7]	1600[7]	1400[7]
	IM5SL4, 8, 12 (10.3")	1050	1300[7]	1050

Notes:
1. All data based on store temperature and humidity that does not exceed NSF Type 1 ambient conditions of 75°F and 55% relative humidity except where noted.
2. 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.
3. Data for operation in NSF Type 2 ambient of 80°F and 55% relative humidity.
4. AHRI 1200 Rating Point for energy consumption comparison only.
5. Subtract 120 Btu/hr/ft (115.4 Watts/m) for front glass (on applicable models).
6. Add 10 Btu/hr/ft (9.6 Watts/m) per shelf row for LED shelf light fixtures.
7. Some lengths and/or applications require optional fan speed control kits applied by the Hussmann Product Configurator.

Defrost Data

OFFTIME	IM5SL
Time (minutes)	20

ELECTRIC OR GAS	Not Available

Frequency (hours between defrost)   4
Defrost Water (lb/ft/day) [8]   7.8 lb/ft/day
     (11.6 kg/m)

[8] **(± 15%** based on case configuration and product loading).

Conventional Controls

	IM5SL
Low Pressure Backup Control CI/CO [9]	
	20°F / 10°F
	−6.67°C / −12.2°C

Indoor Unit Only, Pressure Defrost Termination [9]
     48°F (8.89°C)

[9] Use a Temperature Pressure Chart to determine PSIG conversions.

Estimated Charge [10]   IM5SL

4 ft	0.6 lb	10 oz	0.3 kg
6 ft	1.1 lb	18 oz	0.5 kg
8 ft	1.5 lb	24 oz	0.7 kg
12 ft	2.9 lb	46 oz	1.3 kg

[10] This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound.

Product Data

Gross Refrigerated Volume [11] ***(Cu Ft/Ft)***	8.9 ft³/ft (0.83 m³/m)
AHRI Total Display Area [12] ***(Sq Ft/Ft)***	3.97 ft²/ft (1.21 m²/m)
Shelf Area [13] ***(Sq Ft/Ft)***	8.35 ft²/ft (2.54 m²/m)

[11] AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
[12] Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]
[13] Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (4) rows of shelves: 14-in., 16-in., 18-in., 18-in.

Insight Multideck Merchandiser, 5 Display Levels,
Standard Bottom, Low Height Front

Insight **IM5SL**
Meat & Delicatessen

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.

There is a mimimum of 1.5-in. clearance required to remove the raceway cover, 6.5 ft for full access. See Installation manual for instructions.
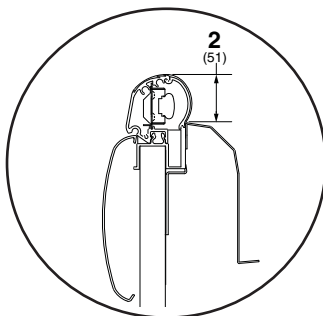
3-in. between back to back cases.

Shelf complement shown as tested:

Four rows of shelves (14-in., 16-in., 18-in., 18-in.), spacing between each row of shelves is 9-in., all down-tilted at 15° with a 12-in. mirror installed in the top, rear corner of the case.

Other optional kits (for example, top piping and vent fans) add to the overall case height.
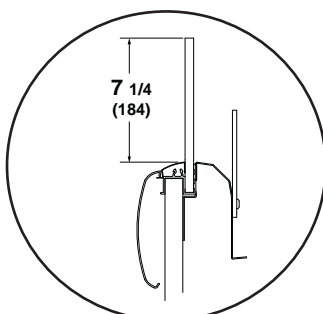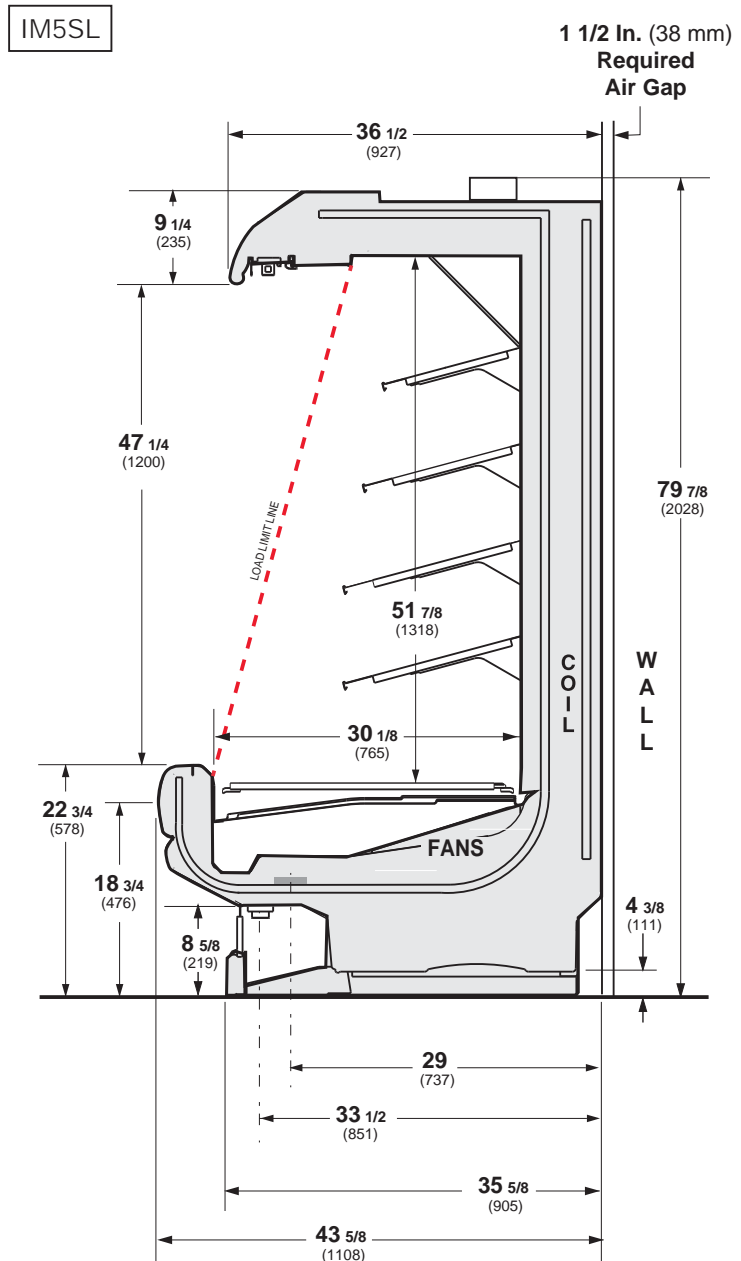
Shown with Ellipse Option Canopy and Bumper.

Dimensions shown as in. and (mm).

IM5SL

1 1/2 In. (38 mm)
**Required
Air Gap**

36 1/2
(927)

9 1/4
(235)

47 1/4
(1200)

79 7/8
(2028)

LOAD LIMIT LINE

51 7/8
(1318)

C O I L

W A L L

30 1/8
(765)

22 3/4
(578)

FANS

18 3/4
(476)

4 3/8
(111)

8 5/8
(219)

29
(737)

33 1/2
(851)

35 5/8
(905)

43 5/8
(1108)

OPTIONAL RAIL LIGHT

2
(51)

*Rail light cannot be used
with glass front option.*

OPTIONAL GLASS FRONT

**7 1/4
(184)**

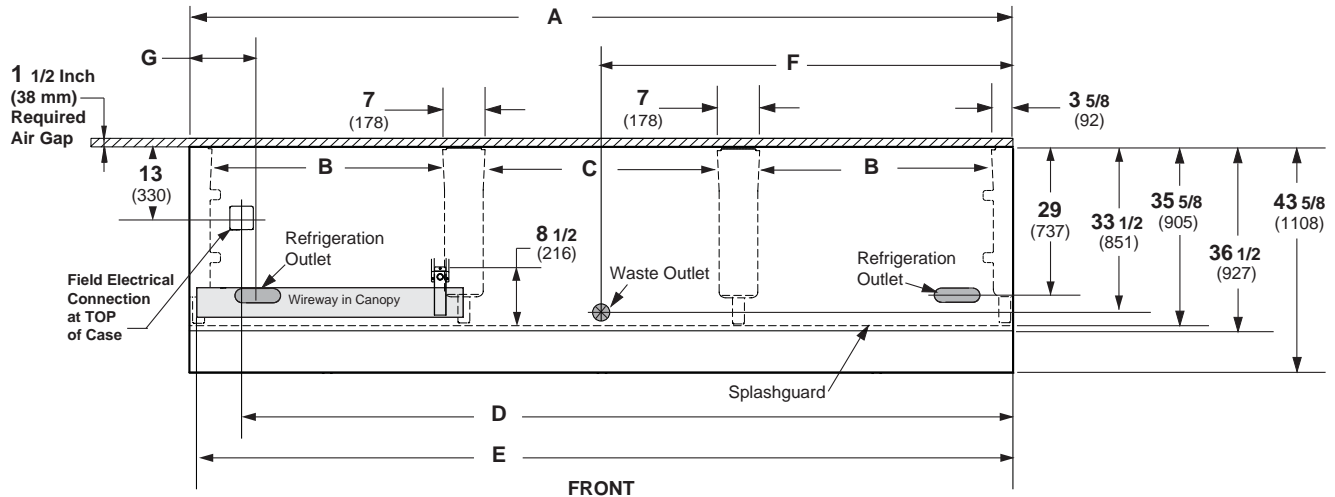*Glass front cannot be used
with rail light option.*

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

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IM3SL/IM4SL/
IM5SL/IP2SL/
IP4SL

Dimensions shown as in. and (mm).

(12 Foot Model shown above)

		4 ft	6 ft	8 ft	12 ft
General					
(A)	Case Length *(without ends or partitions) (Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)*	48 1/8 (1222)	72 1/4 (1835)	96 1/4 (2445)	144 3/8 (3668)
	Maximum O/S dimension of case back to front *(includes bumper)*	43 5/8 (1108)	43 5/8 (1108)	43 5/8 (1108)	43 5/8 (1108)
	Back of case to front of splashguard	35 5/8 (905)	35 5/8 (905)	35 5/8 (905)	35 5/8 (905)
(B)	Distance between edges of external legs and center legs	NA	29 (737)	41 (1041)	41 (1041)
(C)	Distance between edges of center legs	41 1/8 (1045)	NA	NA	41 1/8 (1045)
	Distance between front legs and splashguard	8 (203)	8 (203)	8 (203)	8 (203)
Electrical Service *(Field Electrical Wiring Connection)*					
(D)	RH End of case to center of Field Electrical Wiring Connection *(top of case)*	39 3/8 (1000)	63 1/2 (1613)	87 1/2 (2223)	135 1/2 (3442)
	Back of case to center of Field Electrical Wiring Connection	13 (330)	13 (330)	13 (330)	13 (330)
	Length of electrical wireway	44 5/8 (1133)	33 1/2 (851)	45 7/8 (1191)	45 7/8 (1191)
(E)	RH end of case to LH end of electrical wireway *(top of case)*	46 1/2 (1181)	70 1/2 (1791)	94 1/2 (2400)	142 5/8 (3623)
Waste Outlets					
(F)	RH End of case to the center of waste outlet	24 1/8 (613)	24 1/8 (613)	24 1/8 (613)	72 1/4 (1835)
	Back O/S of case to center of waste outlet(s)	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)
	Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
Refrigeration Outlet					
(G)	Back of case to center of refrigeration outlet	29 (737)	29 (737)	29 (737)	29 (737)
	End of case to center of refrigeration outlet	8 1/2 (216)	8 1/2 (216)	8 1/2 (216)	8 1/2 (216)

Electrical Data

Number of Fans	4 ft	6 ft	8 ft	12 ft
8.25-in.	-	2	-	-
10.3-in.	1	-	2	3

			Amperes				Watts			
Evaporator Fan			4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
120V	60Hz	Energy Efficient	0.40	0.60	0.80	1.20	24	36	48	72
230V	50/60Hz	Energy Efficient	0.21	0.31	0.42	0.62	24	36	48	72

Minimum Circuit Ampacity										
120V	60Hz	Energy Efficient	0.60	0.80	1.00	1.40				
230V	50/60Hz	Energy Efficient	0.41	0.51	0.62	0.82				

	4 ft	6 ft	8 ft	12 ft
Maximum Over Current Protection 120V	**20**	**20**	**20**	**20**
Maximum Over Current Protection 230V	15	15	15	15

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
EcoShine II Canopy

	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
1 Row EcoShine II	0.16	0.26	0.32	0.48	19.3	31.6	38.6	58.0

OPTIONAL LIGHTING
EcoShine II Canopy

	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
1 Row EcoShine II HO	0.22	0.33	0.44	0.66	26.5	39.5	53.0	79.4

EcoShine II Shelf

	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
1 Row of Shelves	0.08	0.12	0.16	0.25	9.9	14.1	19.8	29.7
2 Rows of Shelves	0.16	0.23	0.33	0.49	19.8	28.2	39.5	59.3
3 Rows of Shelves	0.25	0.35	0.49	0.74	29.7	42.3	59.3	89.0
4 Rows of Shelves	0.33	0.47	0.66	0.99	39.5	56.4	79.1	118.6
5 Rows of Shelves	0.41	0.59	0.82	1.24	49.4	70.5	98.9	148.3

EcoShine II Rail Light

	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
1 Row	0.08	0.12	0.16	0.25	9.9	14.1	19.8	29.7

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

ENDS or PARTITIONS

Each standard end and each insulated partition adds 1 ½ in. (38 mm) to case line up. Optional view end with end bumper adds 3 ¾ in. (95 mm).

PHYSICAL DATA

Merchandiser Drip Pipe (in.)   1 ¼
Schedule 40 PVC
Merchandiser Liquid Line (in.)   ⅜
Merchandiser Suction Line (in.)   ⅝

ESTIMATED SHIPPING WEIGHT †

Case					Solid End
	4 ft	*6 ft*	*8 ft*	*12 ft*	*(each)*
lb *(kg)*	700 (318)	850 (386)	950 (431)	1200 (544)	70 (32)

† Actual weights will vary according to optional kits included.

Shelf Options

Approved shelf sizes for standard (horizontal, 2-3 position brackets) displays:

14-inch
16-inch
18-inch
20-inch
22-inch

Contact engineering for non-standard (4 position brackets or other) display recommendations.

Minimum number of Shelves: 3

Optimal number of Shelves: 4

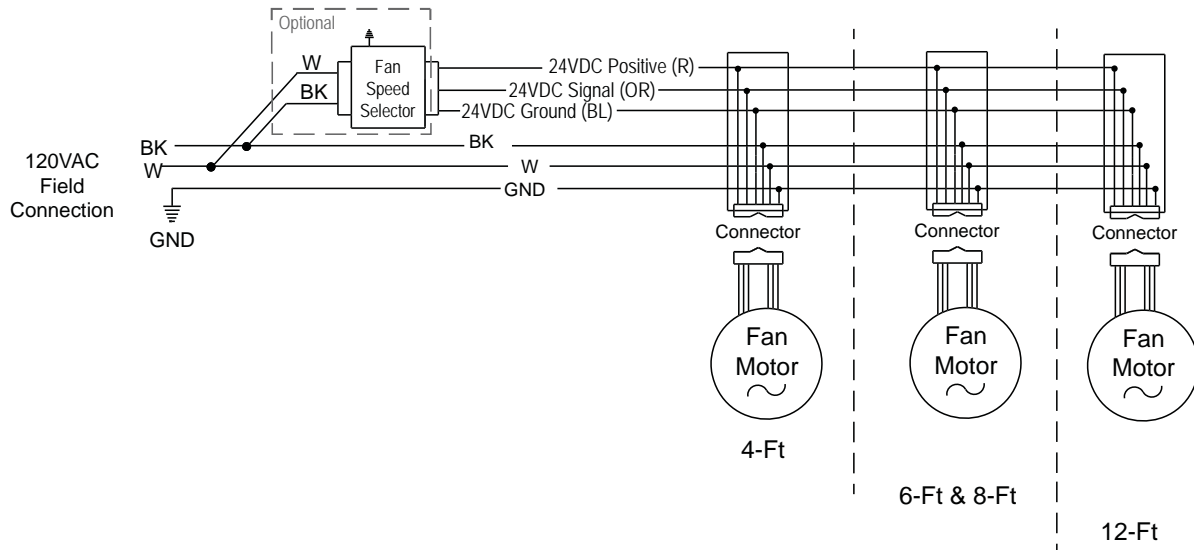Maximum number of Shelves: 6

Maximum number of Lighted Shelves: 5

Standard shelf complement for test purposes: (4) rows of shelves (14-in., 16-in., 18-in., 18-in.), all down-tilted at 15° with a 12-in. mirror, spacing between each row of shelves is 9-in.

Replacement Parts List

Part #	Description
FAN ASSEMBLIES	
Standard HE Fan Assembly	
4 Ft, 8 Ft & 12 Ft	
0535564	10.3-in. Fan Assembly
6 Ft	
0535563	8.25-in. Fan Assembly
THERMOSTATS	
OPTIONAL	
LED FIXTURES AND POWER SUPPLY	
0501213	Power Supply
	LED Canopy Fixture
	Replace with like fixtures.
	LED Shelf Fixture
	Replace with like fixtures.
	LED Rail Fixture
	Replace with like fixtures.

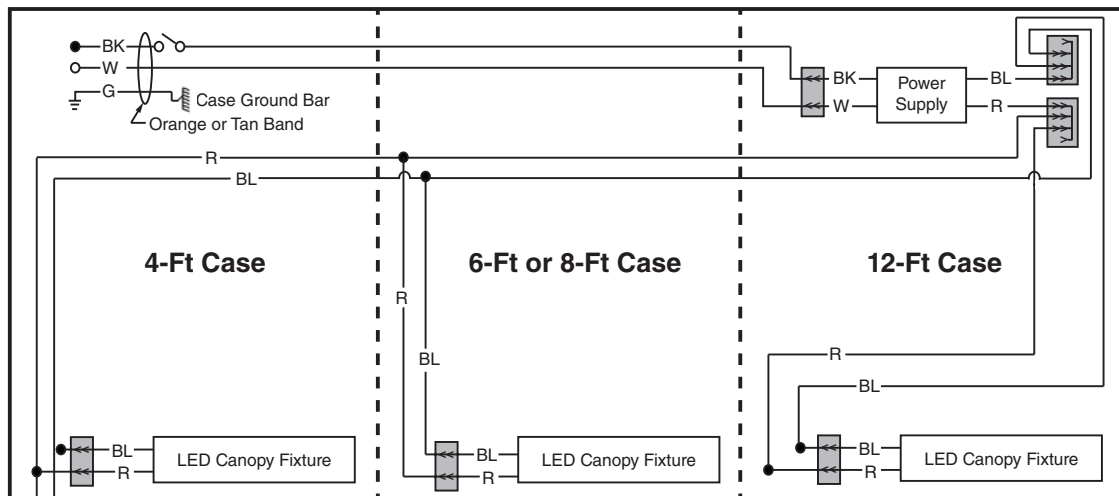| Part #	Description
COILS	
0534323	4 ft, 8 ft, 12 ft
0534322	6 ft only
HONEYCOMB - WHITE	
0536831	4 ft, 8 ft, 12 ft
0536829	6 ft only
OTHER	
0534013	Fan Speed Selector (Standard on 6 Ft only)
0534357	Fan Speed Key 1300 RPM
0534359	Fan Speed Key 1400 RPM
0534363	Fan Speed Key 1600 RPM
Varies	Thermoexpansion Valve

NOTE: For LED lighting parts contact your Hussmann service representative at 1-800-922-1919. Please have your model and serial number available. Descriptions including size and color are at HTTP://WWW.HUSSMANN.COM/EN/PRODUCTS/LED-LIGHTING/PAGES/DEFAULT.ASPX.

FOR ADDITIONAL PARTS INFORMATION, VISIT
HTTP://WWW.HUSSMANN.COM/EN/PAGES/AFTERMARKET-PARTS.ASPX

Insight **IM5SL**
Meat & Delicatessen

Fan Wiring
Offtime Defrost

Optional

Fan Speed Selector

W
BK

24VDC Positive (R)
24VDC Signal (OR)
24VDC Ground (BL)

120VAC Field Connection

BK
W

BK
W
GND

GND

Connector
Connector
Connector

Fan Motor
Fan Motor
Fan Motor

4-Ft

6-Ft & 8-Ft

12-Ft

LED Canopy Light Circuits

EcoShine II LED Canopy Lighting - 1 Row

BK
W
G

Case Ground Bar
Orange or Tan Band

Power Supply

BK
W

BL
R

R
BL

4-Ft Case
6-Ft or 8-Ft Case
12-Ft Case

R
BL

R
BL

BL
R
LED Canopy Fixture

BL
R
LED Canopy Fixture

BL
R
LED Canopy Fixture

Optional Lighting - EcoShine II LED Rail - 1 Row

R
BL

R

R

R

BL

BL

BL

4-Ft Case
6-Ft or 8-Ft Case
12-Ft Case

BL
R
LED Rail Fixture

BL
R
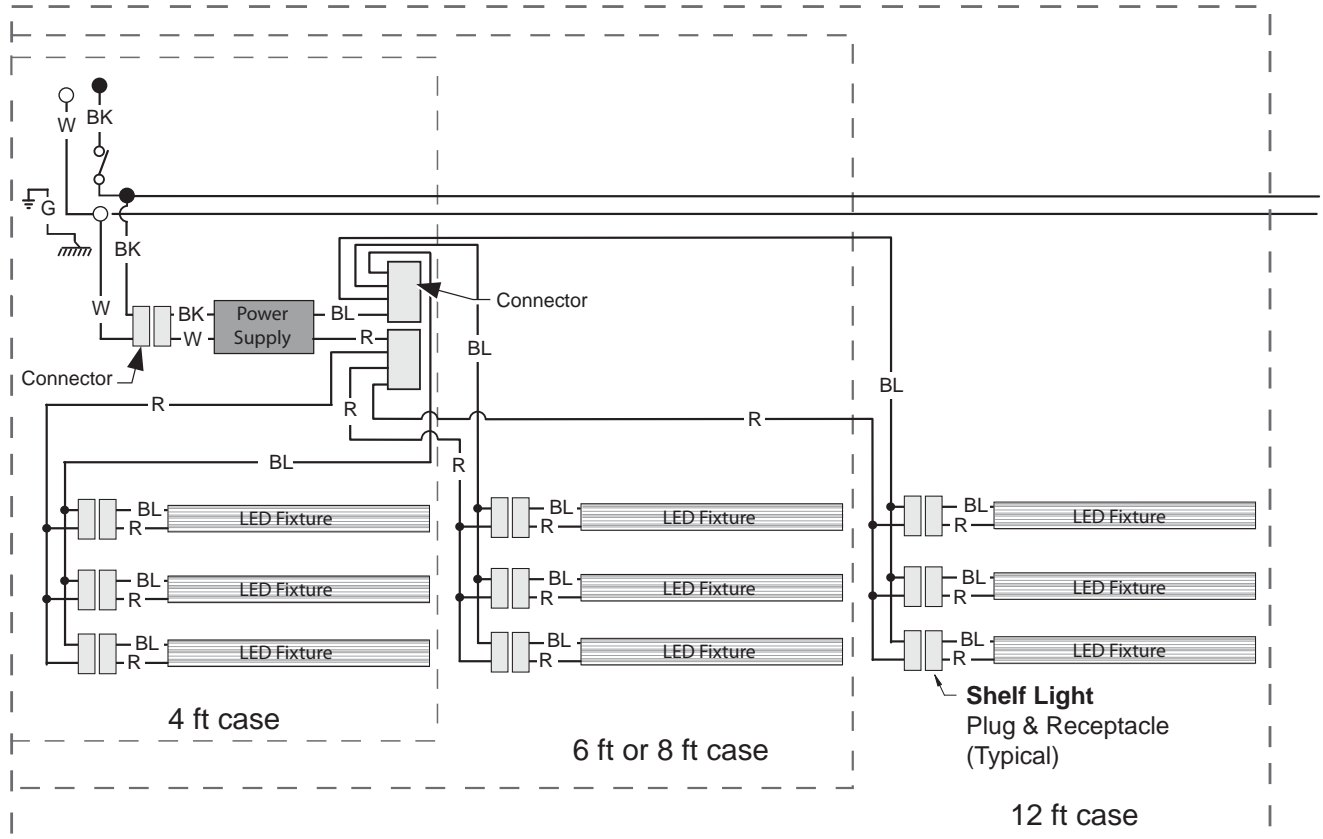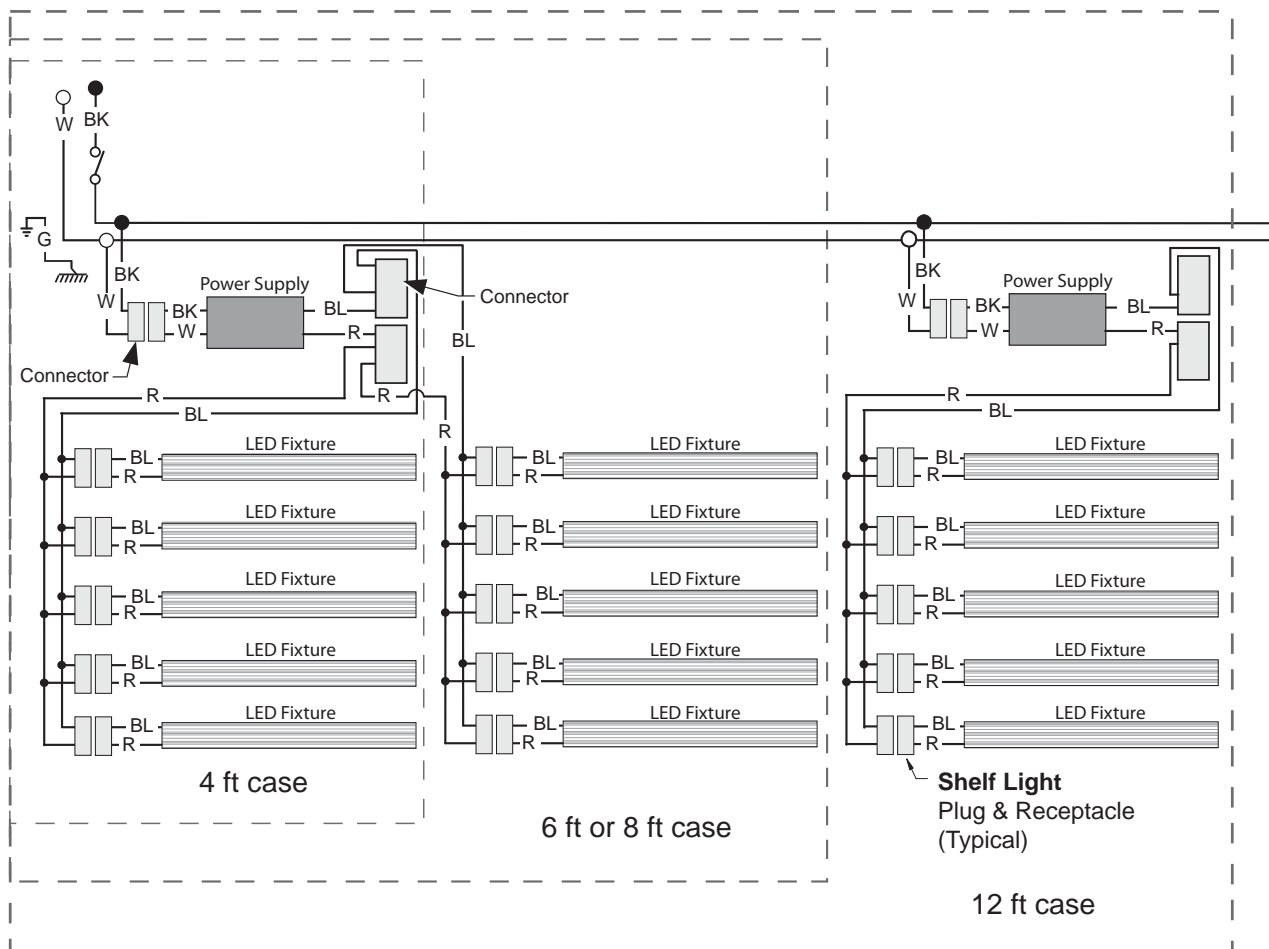LED Canopy Fixture

BL
R
LED Canopy Fixture

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

R = Red   Y = Yellow   G = Green   BL = Blue   BK = Black   W = White
● = 120V Power   ○ = 120V Neutral   ⏚ = Field Ground   ⌿⌿⌿ = Case Ground

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.

R = Red   Y = Yellow   G = Green   BL = Blue   BK = Black   W = White
● = 120V Power   ○ = 120V Neutral   ⏚ = Field Ground   ⏛ = Case Ground

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

4 ft case

6 ft or 8 ft case

Shelf Light
Plug & Receptacle
(Typical)

12 ft case

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

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

Estimating Refrigeration and Electrical Load (for comparison purposes only)

Case Btu
To determine Btu for a case, refer to the performance data chart on page 2. Select lit or unlit shelves, then select the type of remote refrigeration system (parallel or conventional), which will give Btu/hr/ft. Multiply this number by the length of the case to determine Btu per hour. Add 10 Btu/Hr/Ft for each row of LED shelf lights.

Case Electrical
Refer to store legend to determine number of circuits. Lighting should be specified in store legend.

Fan electrical load for a case is computed by selecting the case length and fan voltage on page 6. For example, a 12 ft case uses 3 fans. The store legend specifies fans on a 230V circuit. In this instance, fans use 0.62 Amps and the MCA is 0.82. When applied, ambient fans, anti-sweat heaters, controllers, etc. must be included in the MCA. Include lights in the MCA if lights are on same circuit.

Lights may be on a separate circuit. To estimate lighting load: select case length (12 ft), canopy lighting [standard or optional] (here 0.70 for standard), and shelf or rail lighting [maximum for which case is wired] (1.24 for five shelves); then add together [0.48 + 1.24 = 1.72 amps for 120V] (for 230V, multiply 1.72 * 0.52 = 0.89).

Line Sizing — Refer to store legend.
Hussmann Line Sizing Charts are engineered for use with Hussmann refrigeration equipment.

Scan QR code to access product information on your mobile device.

Revision History

Revision A: August 2013: Original Issue

Revision B: October 2015: Updated application data.

Revision C: December 2015: Updated cross section and plan view.

Revision D: April 2016: Updated cover image, updated application data, added Gross Refrigerated Volume, added optional glass front kit and updated plan view.

Revision E: August 2016: Updated cross section and plan view.

Revision F: January 2017: Added rail light updates.

Revision G: April 2017. Updated LED energy values.

Revision H: April 2017. Updated LED energy values.

Revision J: September 2017. Updated notes page. Other changes marked with a bar, circle or underline.