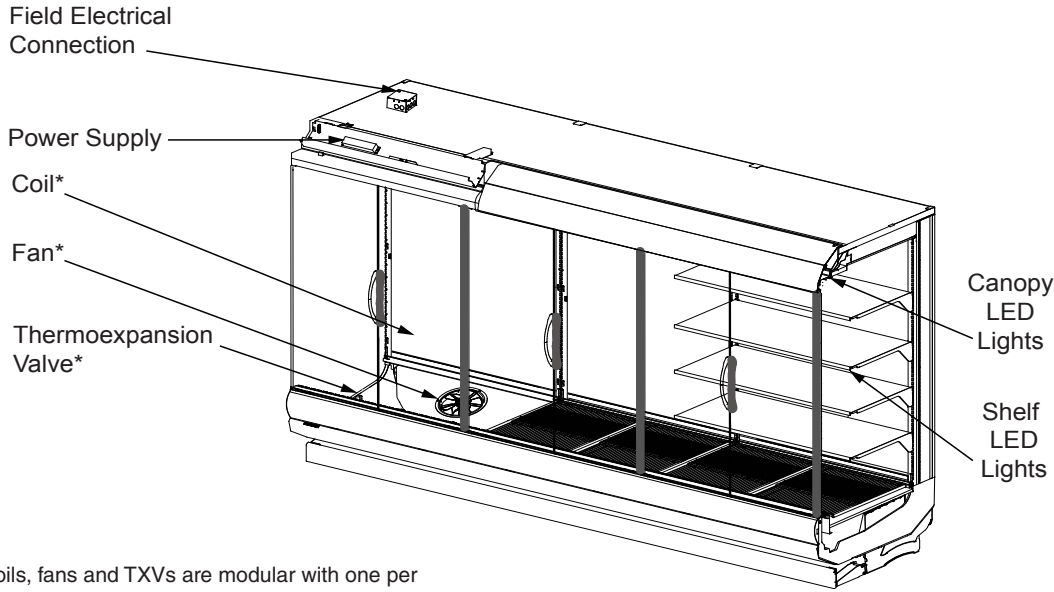


Insight standard field electrical connections are at the top left of the merchandiser



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

Portion of parts removed for clarity.

12 foot merchandiser shown.

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

NSF Certification

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

Performance Data	Page 2	Shelf Options	Page 6
Product Data (AHRI Statistics)	Page 2	Wiring Diagrams	Page 7
Cross Section	Page 3	QR Code for Parts and Product Information	Page 10
Plan View	Page 4	Revision History	Page 10
Electrical Loads	Page 5		
Estimated Shipping Weights	Page 6		

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.

Data sheet-Insight IDD5NL

Insight IDD5NL
Beverage / Dairy /
Delicatessen / Produce

Refrigeration Data ¹

IDD5NL		Optimal Shelf Life					Energy Comparison
Door Option		EcoVision			EcoVision HA	EcoVision HA+	EcoVision
Application		Beverage/ Dairy/Deli/ Produce	Pegs ⁵	Convertible/ Meat	NSF Type 2 Ambient ⁶	Harsh Environment	AHRI 1200 Rating Point ⁷
Unlit Mullions	Discharge Air °F (°C)	37 (2.77)	36 (2.22)	34 (1.11)	34 (1.11)	33 (0.55)	37 (2.77)
	Average Evaporator °F (°C) ^{2,3,4}	34 (1.11)	33 (0.55)	31 (-0.55)	31 (-0.55)	30 (-1.11)	34 (1.11)
	Parallel Btu/hr/ft (Watts/m)	180 (173)	200 (192)	215 (207)	225 (216)	280 (269)	180 (173)
	Conventional Btu/hr/ft (Watts/m)	185 (178)	205 (197)	220 (212)	230 (221)	285 (274)	185 (178)
Lit Mullions	Discharge Air °F (°C)	36 (2.22)	35 (1.66)	33 (0.55)	33 (0.55)	32 (0)	36 (2.22)
	Average Evaporator °F (°C) ^{2,3,4}	33 (0.55)	32 (0)	30 (-1.11)	30 (-1.11)	29 (-1.67)	33 (0.55)
	Parallel Btu/hr/ft (Watts/m)	194 (187)	214 (206)	228 (220)	238 (229)	292 (280)	194 (187)
	Conventional Btu/hr/ft (Watts/m)	200 (192)	220 (212)	235 (226)	245 (236)	300 (288)	200 (192)
Fan Speed	IDD5NL6 (8.25")	1400	1400	1400	1400	1400	1400 ⁷
	IDD5NL4, 8, 12 (8.25")	1400	1400	1400	1400	1400	1400 ⁷

Notes:

- 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.
- 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.
- For DX CO₂ applications the average evaporator temperature may be lowered by 5°F but not more than 10°F. An EPR valve should be used if the system suction temperature is below 24°F. A 31°F flash tank temperature with a 24°F evaporator temperature is used when sizing default EEV selections to provide a minimum pressure drop across the valve of approximately 50 psig. For operating conditions that provide a pressure drop across the valve above 65 psig or below 35 psig, the electronic expansion valve size should be determined using the valve vendor sizing program and selected from the pull down list in the Hussmann Product Configurator (HPC).
- For shelves over 18 inches, reduce the evaporator temperature by 1°F and increase the BTU load by 6%.
- Hussmann Peg Shelves for Dairy/Deli applications only.
- Data for operation in NSF Type 2 ambient of 80°F and 55% relative humidity.
- AHRI 1200 Rating Point for energy consumption comparison only.

Defrost Data

	Type 1	Harsh Environment
Frequency (hours between defrost)	24	12
OFFTIME Time (minutes)	40	30
ELECTRIC OR GAS	Not Available	
Defrost Water ⁸	1.0 lb/ft/day (1.5 kg/m)	1.5 lb/ft/day (2.3 kg/m)

⁸ ± 15% based on case configuration and product loading.

Conventional Controls

IDD5NL
Low Pressure Backup Control CI/CO ⁹
26°F / 16°F -3.3°C / -8.9°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

	IDD5NL			
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)	9.6 ft ³ /ft (0.89 m ³ /m)
AHRI Total Display Area ¹² (Sq Ft/Ft)	4.29 ft ² /ft (1.31 m ² /m)
Shelf Area ¹³ (Sq Ft/Ft)	8.10 ft ² /ft (2.47 m ² /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 18-in. shelves

Insight Multideck Merchandiser, EcoVision Doors,
5 Display Levels, Narrow Bottom, Low Height Front

Insight IDD5NL
Beverage / Dairy /
Delicatessen / Produce

DOE 2017
Energy Efficiency
Compliant

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

Shelf complement shown as tested:

Four rows of 18-in. shelves spaced equally between bottom display pan and interior top panel.

Other optional kits (top piping and vent fans) add to the overall case height.

A minimum 1 1/2-in. clearance required to remove raceway cover, 6 1/2-in. for full access. See the Installation manual for instructions.

A minimum distance of 2-in. is required between the discharge honeycomb and any products.

3-in. between back to back cases.

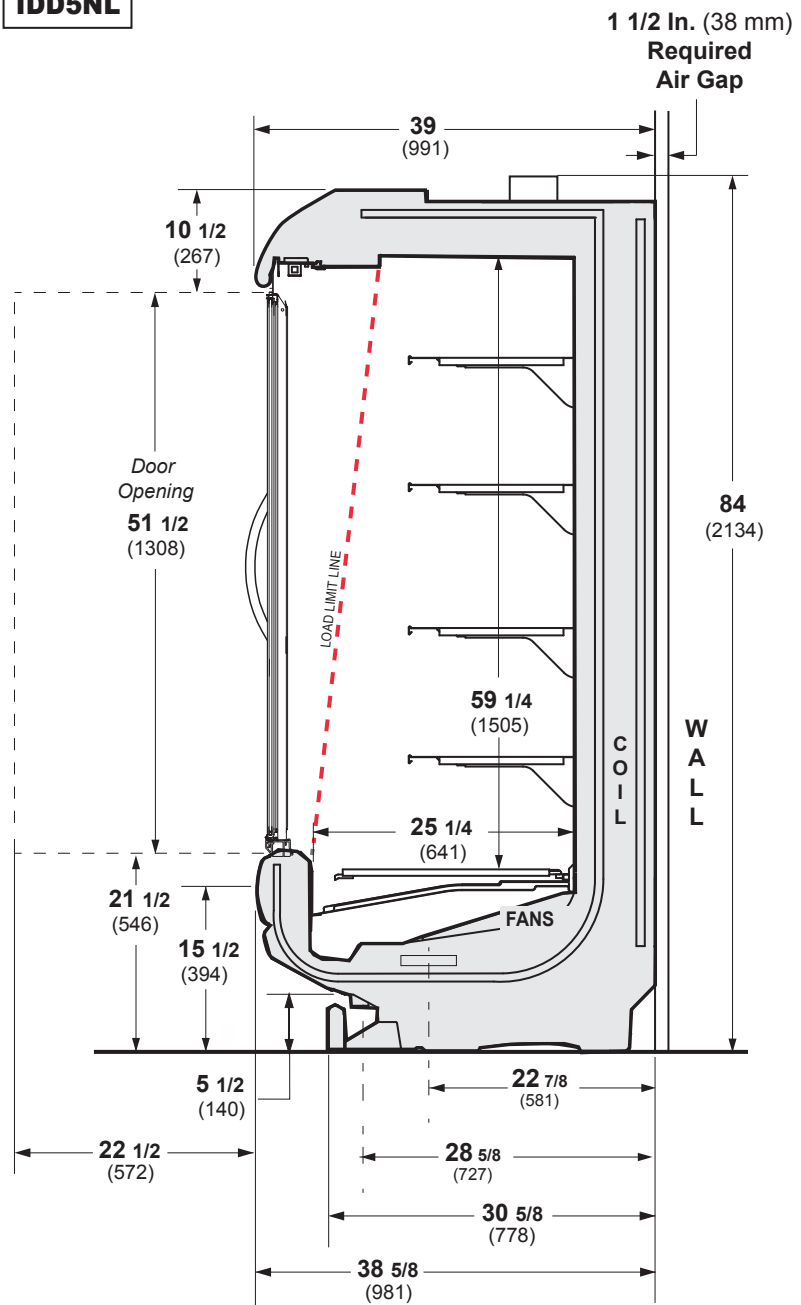
Shown with Ellipse Option Canopy and Bumper.

NSF Certification

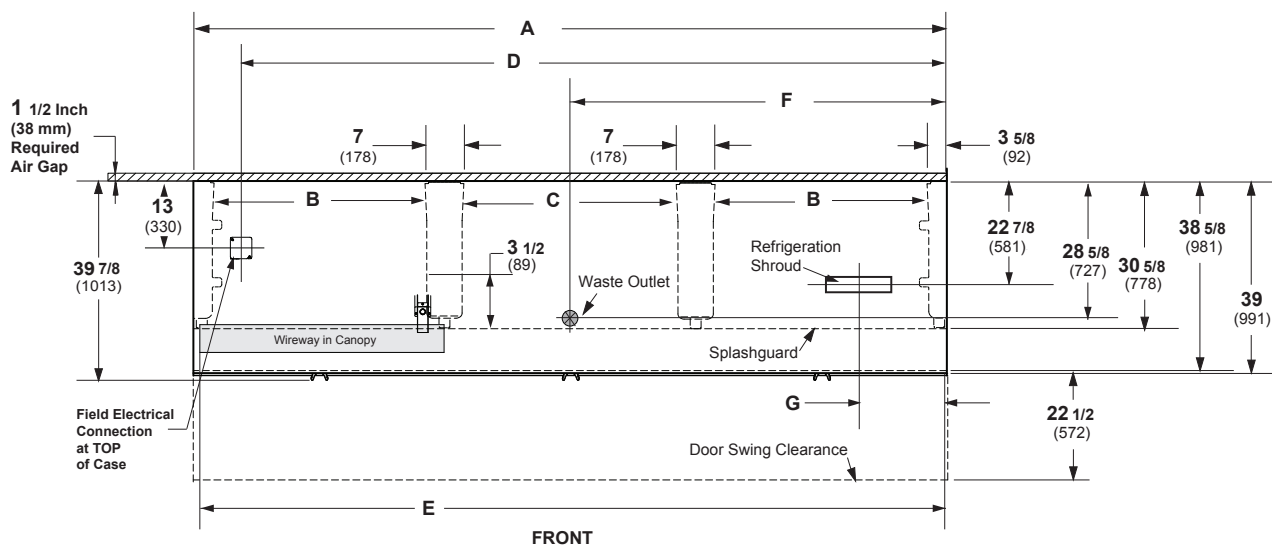
This merchandiser model is manufactured to meet NSF/ANSI (National Sanitation Foundation) Standard #7 requirements for construction, materials and cleanability.

Dimensions shown as in. and (mm).

IDD5NL



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)	38 5/8 (981)	38 5/8 (981)	38 5/8 (981)	38 5/8 (981)
Back of case to front of splashguard	30 5/8 (778)	30 5/8 (778)	30 5/8 (778)	30 5/8 (778)
(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	3 1/4 (83)	3 1/4 (83)	3 1/4 (83)	3 1/4 (83)
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 (1165)	45 7/8 (1165)
(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 (3630)
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)	28 5/8 (727)	28 5/8 (727)	28 5/8 (727)	28 5/8 (727)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
Refrigeration Shroud				
(G) Back of case to center of refrigeration shroud	22 7/8 (581)	21 1/8 (537)*	22 7/8 (581)	22 7/8 (581)
End of case to center of refrigeration shroud	9 1/2 (241)	7 5/8 (194)*	9 1/2 (241)	9 1/2 (241)
*6 ft case at a 42° angle parallel to the plenum				

Electrical Data

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

	Amperes				Watts			
	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
Evaporator Fan								
120V 60Hz Energy Efficient	0.25	0.50	0.50	0.75	16	32	32	48
230V 50/60Hz Energy Efficient	0.13	0.26	0.26	0.39	16	32	32	48

Minimum Circuit Ampacity

120V 60Hz Energy Efficient	0.45	0.70	0.70	0.95
230V 50/60Hz Energy Efficient	0.33	0.46	0.46	0.59

Maximum Over Current Protection 120V	20	20	20	20
Maximum Over Current Protection 230V	15	15	15	15

Lighting

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 LED LIGHTING

LED Canopy Lights

1 Row	0.16	0.22	0.31	0.47	19	27	38	57
-------	------	------	------	------	----	----	----	----

Shelf

None

Optional LED Mullion Lights

48-in.	0.22	0.39	0.39	0.56	27	47	47	67
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120V Lighting Circuit Total = Standard Lighting + Total Optional Lighting

230V Lighting Circuit Total = Multiply 120V Lighting Circuit Total by 0.52

FRAME ANTI-CONDENSATE HEATERS

(Only with EcoVision HA+ Door Option)	0.39	0.59	0.64	0.88	46	69	74	103
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Insight IDD5NL
 Beverage / Dairy /
 Delicatessen / Produce

ENDS or PARTITIONS

Each standard end and each insulated partition adds 1 1/2 in. (38 mm) to case line up. Optional view end with end bumper adds 3 3/4 in. (95 mm).

PHYSICAL DATA

Merchandiser Drip Pipe (in.)	1 1/4
Schedule 40 PVC	
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	5/8

ESTIMATED SHIPPING WEIGHT †

Case	4 ft	6 ft	8 ft	12 ft	Solid End (each)
lb (kg)	760 (345)	920 (417)	1110 (504)	1260 (572)	80 (36)

† 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 ¹
- 22-inch ¹
- 24-inch ¹

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: 8

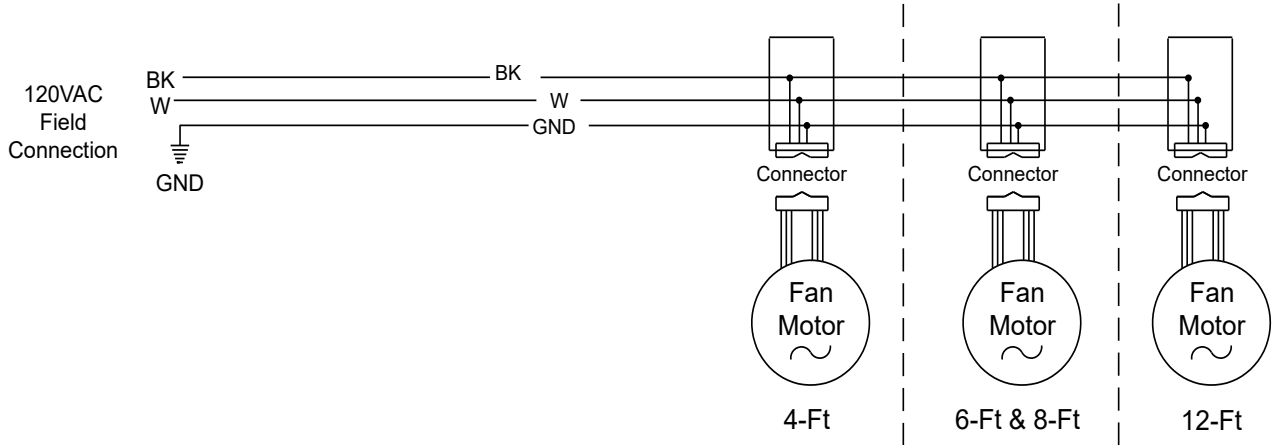
Maximum number of Lighted Shelves: 0

Standard shelf complement for test purposes: (4) rows of 18-in. shelves evenly distributed vertically.

¹ For shelves over 18 inches, reduce the evaporator temperature by 1°F and increase the BTU load by 6%.

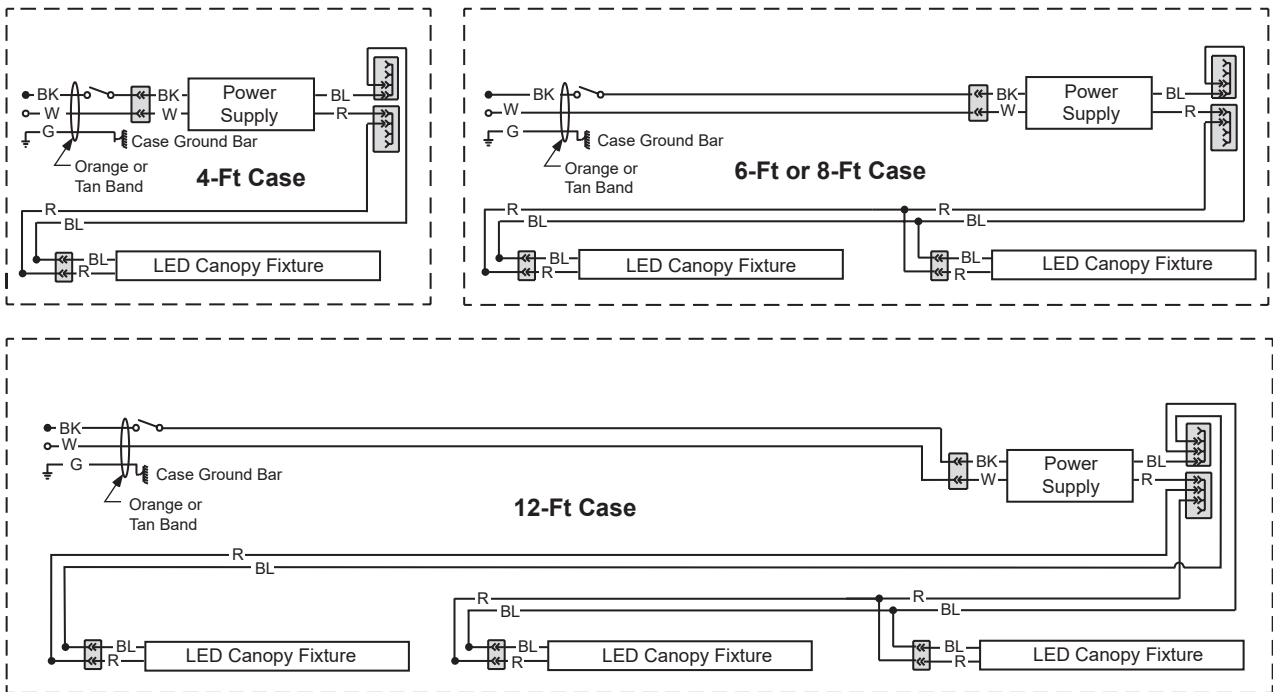
Fan Wiring Offtime Defrost Wiring Diagram

Insight IDD5NL
Beverage / Dairy /
Delicatessen / Produce



LED Canopy Light Circuits Wiring Diagram

LED Canopy Lighting — 1 Row



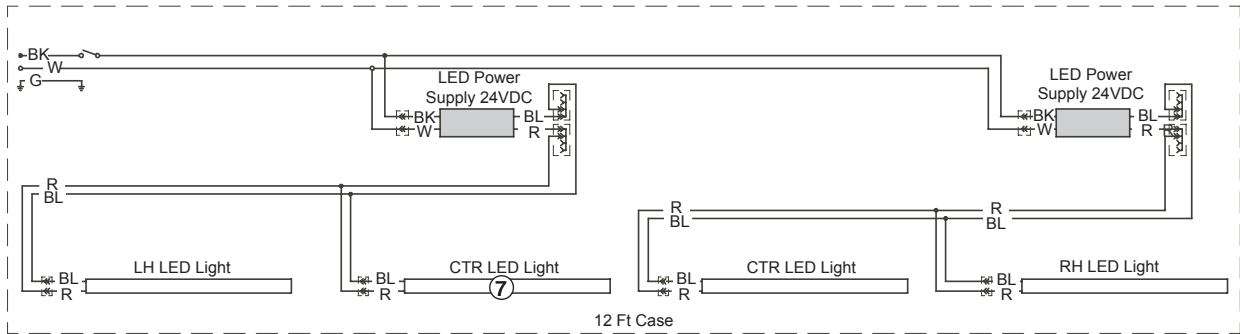
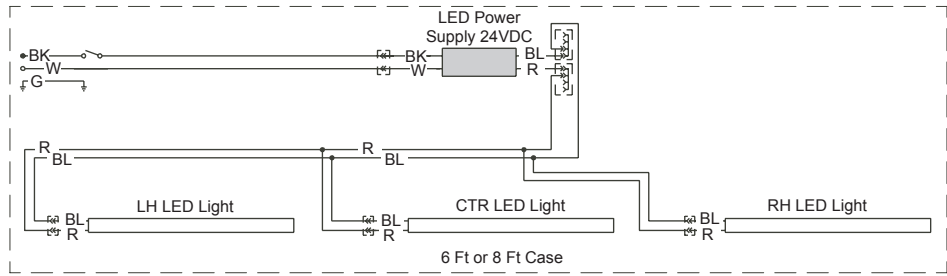
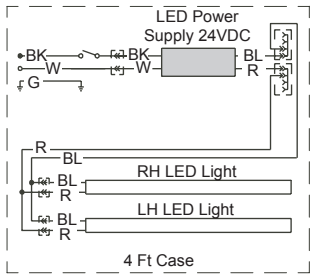
WARNING

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

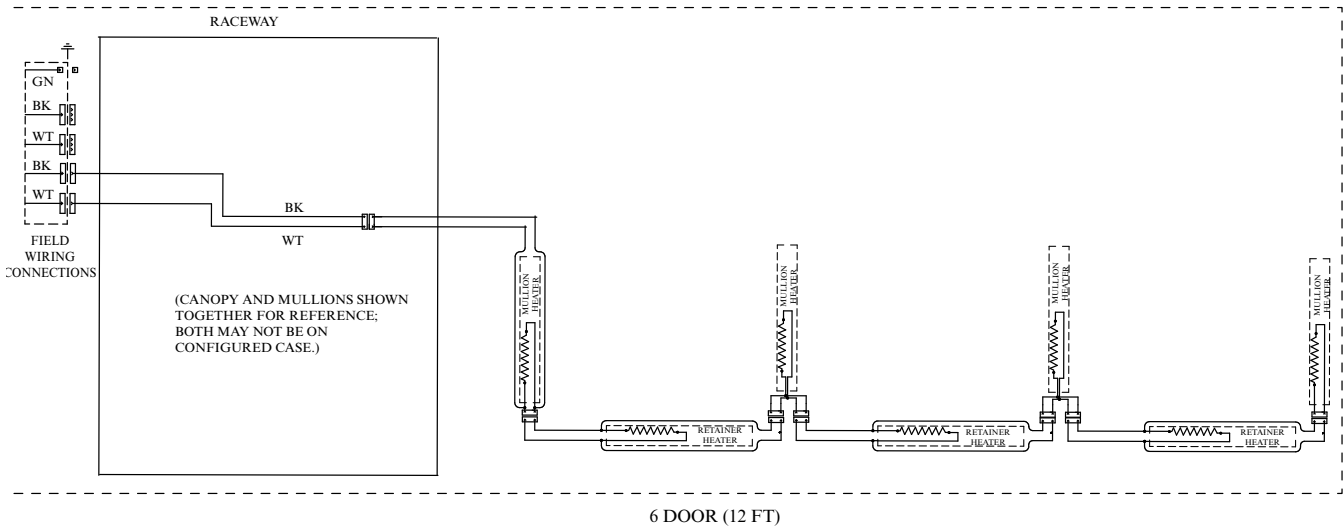
R = Red Y = Yellow G = Green BL = Blue BK = Black W = White
 ● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND mmm = CASE GROUND

Insight IDD5NL
Beverage / Dairy /
Delicatessen / Produce

Mullion LED Lighting
Wiring Diagram



Door Frame Heater
EcoVision HA+ Only
Wiring Diagram



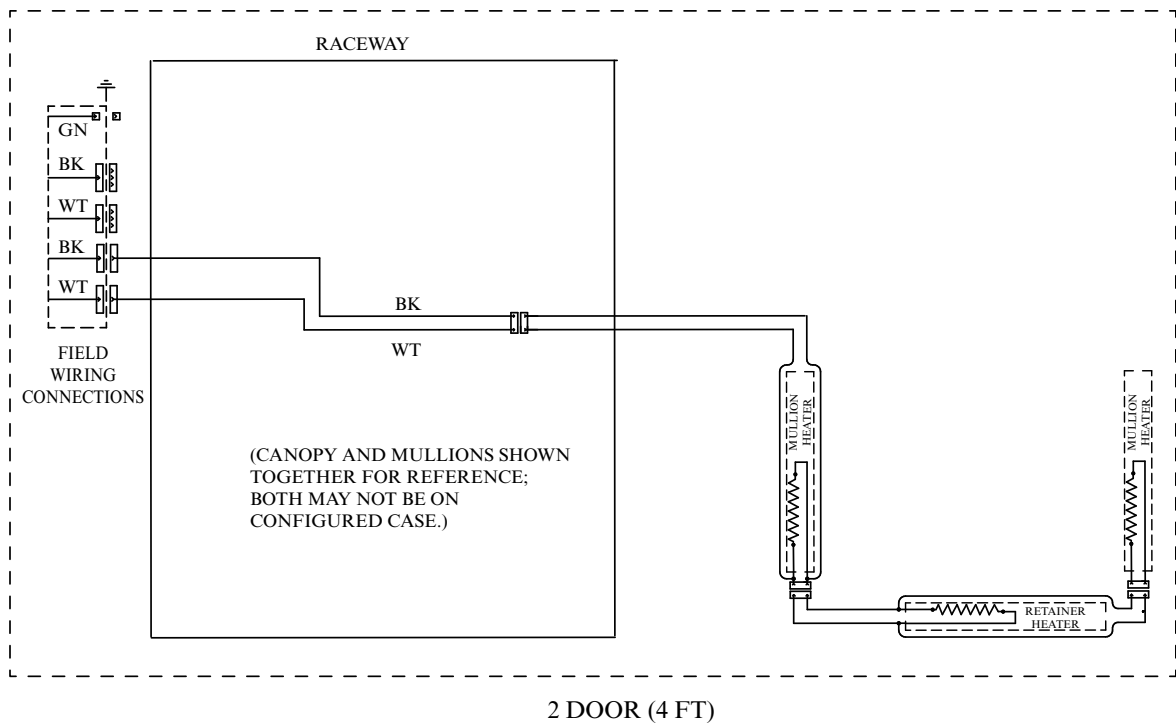
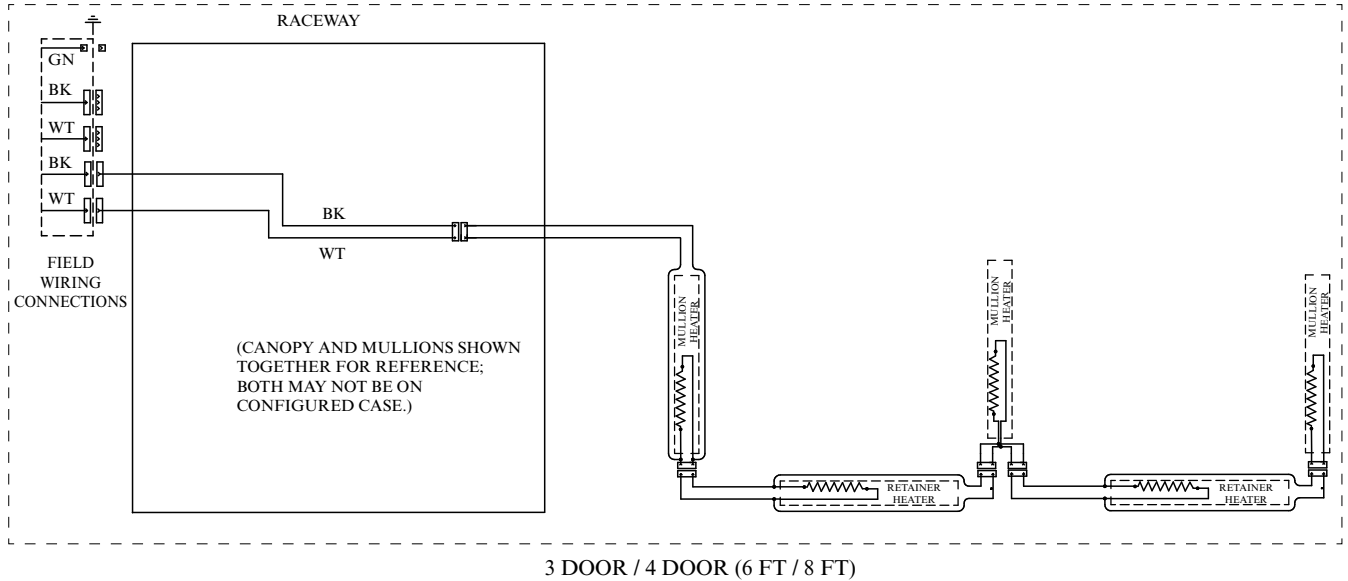
WARNING

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 mmm = CASE GROUND

Door Frame Heater EcoVision HA+ Only Wiring Diagram

Insight **IDD5NL**
Beverage / Dairy /
Delicatessen / Produce



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

Insight **IDD5NL**
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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 LED Mullion 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 0.39 Amps and the MCA is 0.59. 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 mullion lighting [maximum for which case is wired] (0.57 for EcoShine II 48 mullion lights); then add together [0.48 + 0.57 = 1.05 amps for 120V] (for 230V, multiply 1.05 * 0.52 = 0.55).

Line Sizing — Refer to store legend.

Hussmann Line Sizing Charts are engineered for use with Hussmann refrigeration equipment.



Scan the QR code with your mobile device to access additional product information or order parts.

Parts may also be ordered at:

parts.hussmann.com

Call toll free: 1.855.487.7778

Revision History

Revision A: April 2015: Original Issue.

Revision B: July 2015: Fixed incorrect part number.

Revision C: September 2015: Updated cover image and updated performance data on page 2.

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

Revision E: April 2016: Updated cover image, updated application data, added Gross Refrigerated Volume and updated plan view.

Revision F: June 2016: Updated cross section.

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

Revision H: January 2017: Removed EcoShine "Plus" references.

Revision J: April 2017: Updated LED energy values.

Revision K: April 2017: Updated LED energy values.

Revision L: September 2017: Updated notes page.

Revision M: May 2018: Updated lighting information.

Revision N: January 2023. Added CO₂ note, Page 2.

Revision P: August 2023. Updated refrigeration data on page 2 and updated shelf information on page 6. Added note to page 3 about space between honeycomb and product.

Revision R: November 2023: Updated fan and lighting information.