

#### FAN ASSEMBLIES

8 Ft & 12 Ft

А.	7W Standard	<b>Energy Efficient</b> Fan Assembly (1)
	0477654	Fan Motor, Evaporator
		(MO.4410545)
	0142780	Fan Blade (FB.0142780)

#### THERMOSTATS

B. Optional Adjustable Refrigeration Thermostat(2)

#### HEATERS

С.		Canopy Anti-Sweat Heater	(3)
	0512501	8 ft (HE.4851176)	
	0512503	12 ft (HE.4851178)	

#### LAMPS AND BALLASTS

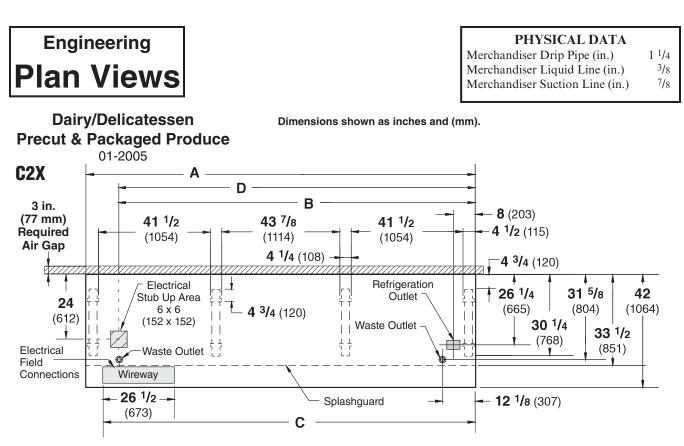
D.	Ballast, Elec	etronic	(4)
	0480130	2 lamps (BA.4481676)	
	0480131	3 lamps (BA.4481654)	
	0480132	4 lamps (BA.4481677)	
Ε.		Fluorescent Lamp	(5)
		Replace with like fixtures	

#### LED FIXTURES AND POWER SUPPLY

F.	0501213	Power Supply (EP.4481861)	(6)
G.		LED Canopy Fixture	(7)
		Replace with like fixtures	
Η.		LED Shelf Fixture	(8)
		Replace with like fixtures	

#### Data sheet-Excel-C2X-XGEP

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



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

FRONT

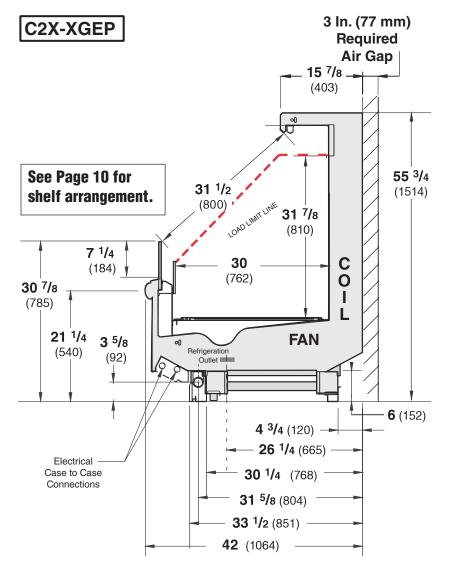
	8 ft	12 ft
General		
(A) Case Length (without ends or partitions)	96 3/8 (2448)	144 1/2 (3670)
(Each end and insulated partition adds $1^{1}$ /2 in. (38 mm) to case line up.)		
Maximum O/S dimension of case back to front		
(includes bumper)	42 (1064)	42 (1064)
Back of case to front of splashguard	33 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)
Distance between edges of external legs and center legs	41 1/2 (1054)	41 1/2 (1054)
Distance between edges of center legs	NA	43 7/8 (1114)
Distance between front legs and splashguard	2 3/4 (70)	2 3/4 (70)
<b>Electrical Service</b> ( <i>Electrical Field Wiring connection point</i> )		
(B) RH End of case to center of stub up area	84 1/4 (2140)	132 3/8 (3363)
Back of case to center of stub up area	24 (612)	24 (612)
Length of electrical wireway Wireway	26 1/2 (673)	26 1/2 (673)
(C) RH End of case to LH end of wireway	90 1/8 (2289)	138 1/4 (3511)
Waste Outlets (One each end)		
(D) RH End of case to the center of LH waste outlet	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)
Back O/S of case to center of waste outlets	31 5/8 (804)	31 5/8 (804)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)
Refrigeration Outlet		
Back of case to center of refrigeration outlet	26 1/4 (665)	26 1/4 (665)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)

#### Multi-deck, 4 Display Levels, Standard front with Glass, 55 In. Back

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.

Dimensions shown as inches and (mm).



#### **NSF** Certification

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

Estimated C	Charge **	C2X-	<b>-XGEP</b>
8 ft	3.2 lb	51 oz	1.5 kg
12 ft	4.5 lb	70 oz	2.0 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 C2X-XGEP

#### Dairy/Delicatessen

Precut & Packaged Produce

#### **REFRIGERATION DATA**

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

C2X-XGEP§ Da	niry/Del	li/Proc	luce Me	eat
	Unlit	LIT	Unlit	LIT
Discharge Air °F	33	31	30	28
Evaporator °F	28	26	25	23
Unit Sizing °F	26	24	23	21

§ 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 Shelves ‡

C2X-XGEP Dair	y/Deli/Produce	Meat			
PARALLEL	701	744			
CONVENTIONAL	734	779			
<sup>‡</sup> Add 10 Btu/hr/ft <i>per shelf row</i> for LED fixtures.					
Add 20 Btu/hr/ft per shelf row for fluorescent lamps.					

#### DEFROST DATA

	C2X-XGEP		
Frequency (hr)	12		
Defrost Water (lb/ft/day)	7		
(±15% based on case configuration and product loading.)			
Offtime	C2X-XGEP		
Time (minutes)	30		

ELECTRIC OR GAS

Not I	Recommended	

#### **CONVENTIONAL CONTROLS**

Low Pressure Backup Control				
C2X-XGEP	Dairy/Deli/Produce	Meat		
CI/CO*	19°F / 9°F	16°F / 6°F		

Indoor Unit Only, Pressure Defrost Termination\* 48°F

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

## Excel C2X-XGEP Dairy/Delicatessen **Precut & Packaged Produce**

#### **Electrical Data**

LICCUR	ai Data		8 ft	12 ft			
Number of Fans—7W			2	3			
			Am	peres	Wa	itts	
			8ft	12 ft	8 ft	12 ft	
Evaporato	or Fan						
120V	50/60Hz Standard Energy	v Efficient	0.38	0.57	28	42	
230V	50/60Hz Standard Energy	v Efficient	0.20	0.30	28	42	
230V	60Hz Export		0.50	0.75	78	117	
230V	50Hz Export		0.56	0.84	84	126	
Minimum	Circuit Ampacity †						
120V	50/60Hz Standard Energy	v Efficient	0.58	0.77			
230V	50/60Hz Standard Energy	/ Efficient	0.40	0.50			
230V	60Hz Export		0.70	0.95			
230V	50Hz Export		0.76	1.04			
Maximun	Over Current Protection 12	0V	20	20			
Maximun	Over Current Protection 23	0V	15	15			
Anti-swea	t Heaters						
120V	50/60Hz Standard		0.20	0.30	24	36	
	Lighting (T-8 Fluorescent)						
1 Row	Canopy		0.51	0.77	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.

#### **Optional Lighting (T-8 Fluorescent)**

Additional 1 Row Canopy	0.51	0.77	59	85
1 Row Rail Light	NA — Glass front does not accept rail light			
3 Rows of Shelves	1.53	2.31	177	255
EcoShine II Canopy 1 Row Canopy — EcoShine II 1 Row Canopy — EcoShine II HO	0.32 0.44	0.48 0.66	38.6 53.0	58.0 79.4
EcoShine II Shelf 2 Rows of Shelves 3 Rows of Shelves	0.33 0.49	0.49 0.74	39.5 59.3	59.3 89.0

120V Fluorescent Lighting Circuit Total = Standard Lighting + Total Optional Lighting + Optional Shelf Lighting 120V LED Lighting Circuit Total = Canopy Lighting + Shelf Lighting

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

<sup>†</sup> MCA does not include Canopy A/S Heaters because heaters are wired separately from fans.

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**

Recommended Usable Cube <sup>1</sup> (Cu Ft/Ft)	3.61 ft <sup>3</sup> /ft (0.34 m <sup>3</sup> /m)
AHRI Total Display Area <sup>2</sup> (Sq Ft/Ft)	3.10 ft²/ft (0.94 m²/m)
Shelf Area <sup>3</sup> (Sq Ft/Ft)	6.36 ft²/ft (1.94 m²/m)

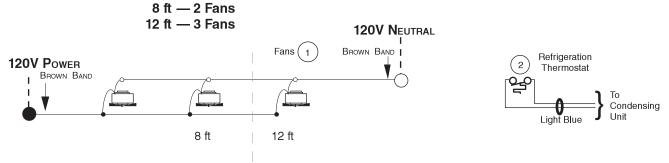
1 AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft<sup>3</sup>/ft [m<sup>3</sup>/m]

<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]

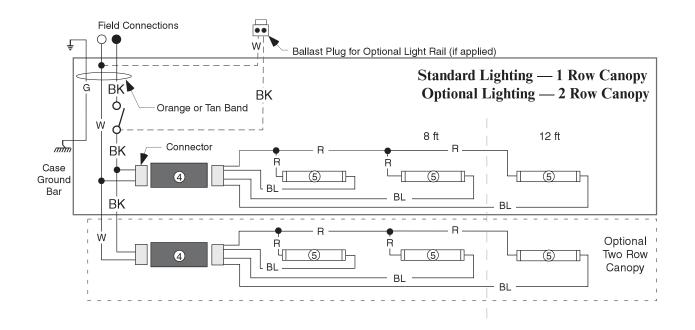
<sup>3</sup> Shelf surface area is composed of bottom deck plus standard shelf complement, as shown in the Hussmann *Product Reference Guide*. The standard shelf complement for this model is (1) row of 12-inch shelf, (1) row of 16-inch shelf and (1) row of 18-in shelf.

ESTIMATED SHIPPING WEIGHT 4				
Case			Solid End	
	8ft	12 ft	(each)	
<b>lb</b> ( <i>kg</i> )	1000 (454)	1200 (544)	75 (34)	
<sup>4</sup> Actual weights will vary according to optional kits included.				

2 & 3 Fans

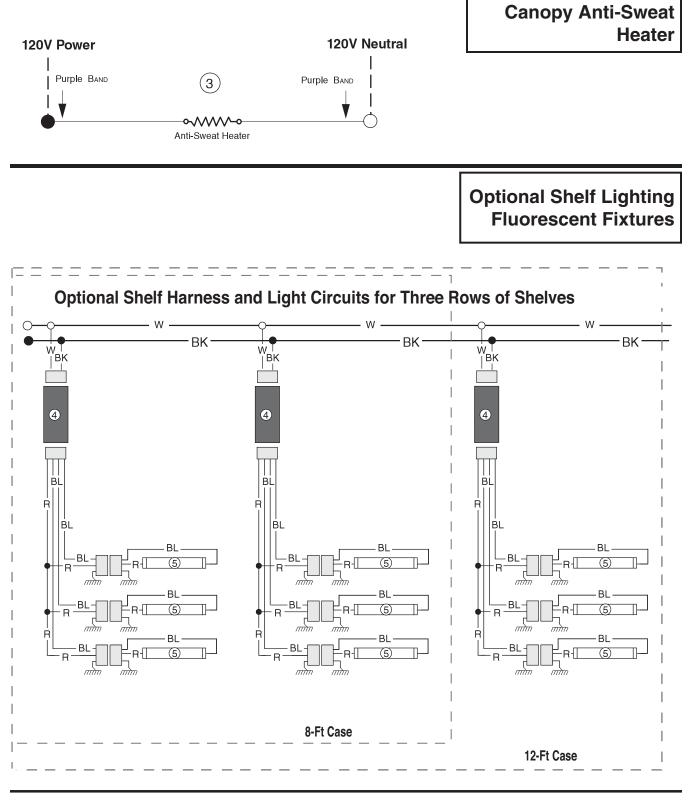


## Canopy Light Circuits — Fluorescent Fixtures



#### 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  $\bigcirc$  = 120V Neutral  $\downarrow$  = FIELD GROUND mm = Case Ground



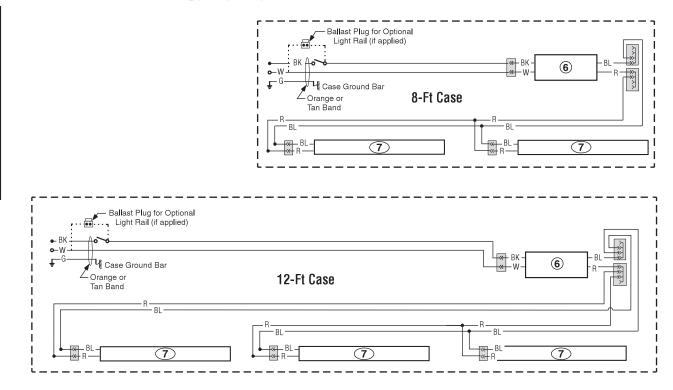
#### WARNING

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 Po	ower 0 = 12	OV NEUTRAL		DUND min	= CASE GROUND

## **Optional Canopy Light Circuits — LED Fixtures**

#### EcoShine II LED Canopy Lighting — 1 Row



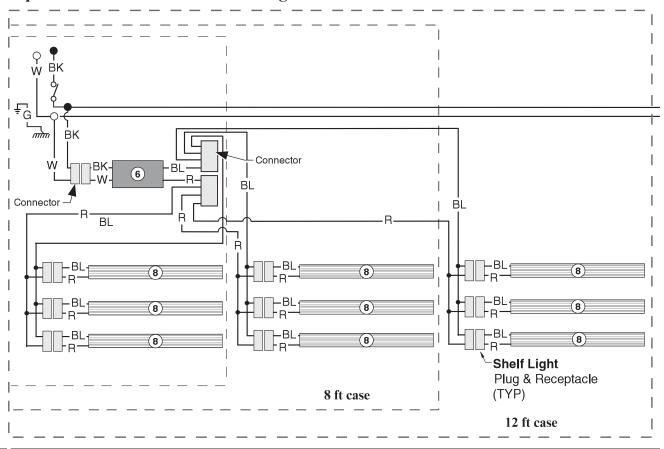
#### WARNING

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  $\bigcirc$  = 120V NEUTRAL  $\frac{1}{2}$  = FIELD GROUND  $\overrightarrow{mm}$  = 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

 $R = Red \qquad G = Green \qquad BL = Blue \qquad BK = Black \qquad W = White$  $= 120V Power \qquad \bigcirc = 120V NEUTRAL \qquad \downarrow = FIELD GROUND \qquad mm = CASE GROUND$ 

## 

Dairy/Delicatessen

Precut & Packaged Produce

### SHELF CONFIGURATION

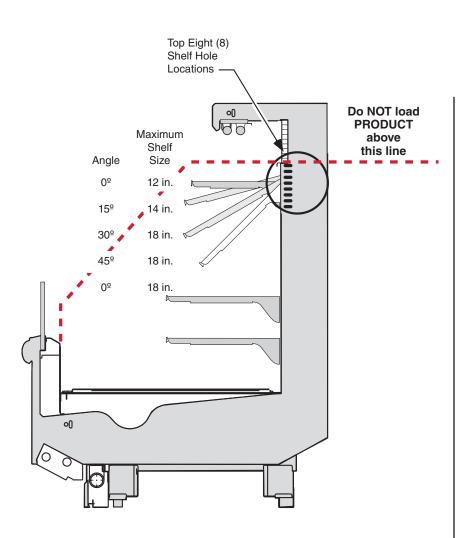
This merchandiser is designed for two or three shelves.

The depth of the shelf used in the top eight (8) shelf hole locations is critical to case performance.

If a shelf is placed in one of the top eight (8) locations it must comply with the angle/depth requirements listed below.

Shelf Angle	Maximum Shelf Depth
0 °	12 in.
15 °	14 in. or less
30 °	18 in. or less
45 °	18 in. or less

**NOTE:** Shelves placed in the lower positions may be up to 18 in. deep when positioned at a 0 ° angle.



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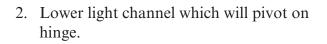
#### Dairy/Delicatessen

Precut & Packaged Produce

The ballast for the canopy and shelf lamps is located behind the canopy on the left-hand end (when facing case) of the merchandiser.

To access the ballast:

1. Remove screws at bottom edge of canopy and rear of light channel.

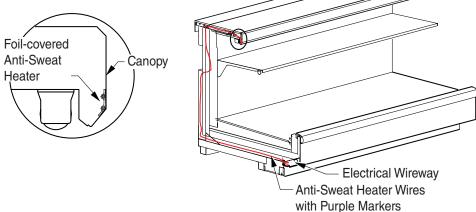


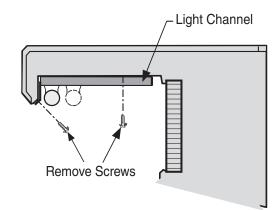
- 3. Service or replace ballasts as required.
- 4. Reassemble items as they were originally installed.

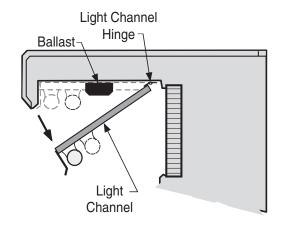
**NOTE**: Rail lamp ballast is located in the electrical raceway.



The canopy anti-sweat heater location is shown below. Connections are in the electrical wireway.







Canopy