

HUSSMANN[®] Excel

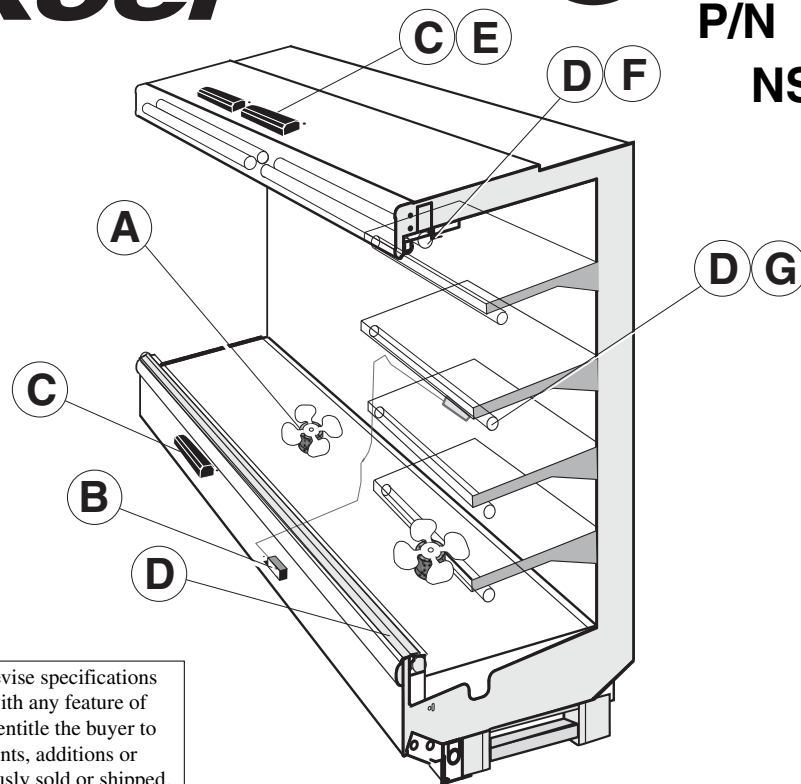


D5NX-LEP

Technical Data Sheet
P/N 0480684_I

NSF[®] Certified

March 2010



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 # |
|-------------------------------|-----------------------------|------------------------------------|---------------|---|---|---------------------------|---------------|
| FAN ASSEMBLIES | | | | THERMOSTATS | | | |
| 4 Ft, 8 Ft & 12 Ft | | | | B. Optional Adjustable Refrigeration Thermostat (2) | | | |
| A. | 12W Standard | Fan Assembly | (1) | LAMPS AND BALLASTS | | | |
| | 0047000 | Fan Motor, Evaporator (MO.4410103) | | C. | Ballast, Electronic | | (3) |
| | 0461805 | Fan Blade (FB.4780446) | | | 0480130 | 2 lamps (BA.4481676) | |
| | 12W Energy Efficient | Fan Assembly | (1) | | 0480131 | 3 lamps (BA.4481654) | |
| | 0477655 | Fan Motor, Evaporator (MO.4410546) | | | 0480132 | 4 lamps (BA.4481677) | |
| | 0461805 | Fan Blade (FB.4780446) | | D. | Fluorescent Lamp | | (4) |
| | | | | | <i>Replace with like fixtures</i> | | |
| 6 Ft Only | | | | LED FIXTURES AND POWER SUPPLY | | | |
| A. | 7W Standard | Fan Assembly | (1) | E. | 0501213 | Power Supply (EP.4481861) | (5) |
| | 0058698 | Fan Motor, Evaporator (MO.4410102) | | F. | | LED Canopy Fixture | (6) |
| | 0142780 | Fan Blade (FB.0142780) | | | <i>Replace with like fixtures — See Page 5.</i> | | |
| | 7W Energy Efficient | Fan Assembly | (1) | G. | | LED Shelf Fixture | (7) |
| | 0477654 | Fan Motor, Evaporator (MO.4410545) | | | <i>Replace with like fixtures — See Page 5.</i> | | |
| | 0142780 | Fan Blade (FB.0142780) | | | | | |

Note: Rev. I adds Btu note (page 3), and EcoShine LED (page 4) and parts (page 5), and revises canopy wiring diagram (page 6). Other changes marked by underline or circle.



Engineering Plan Views

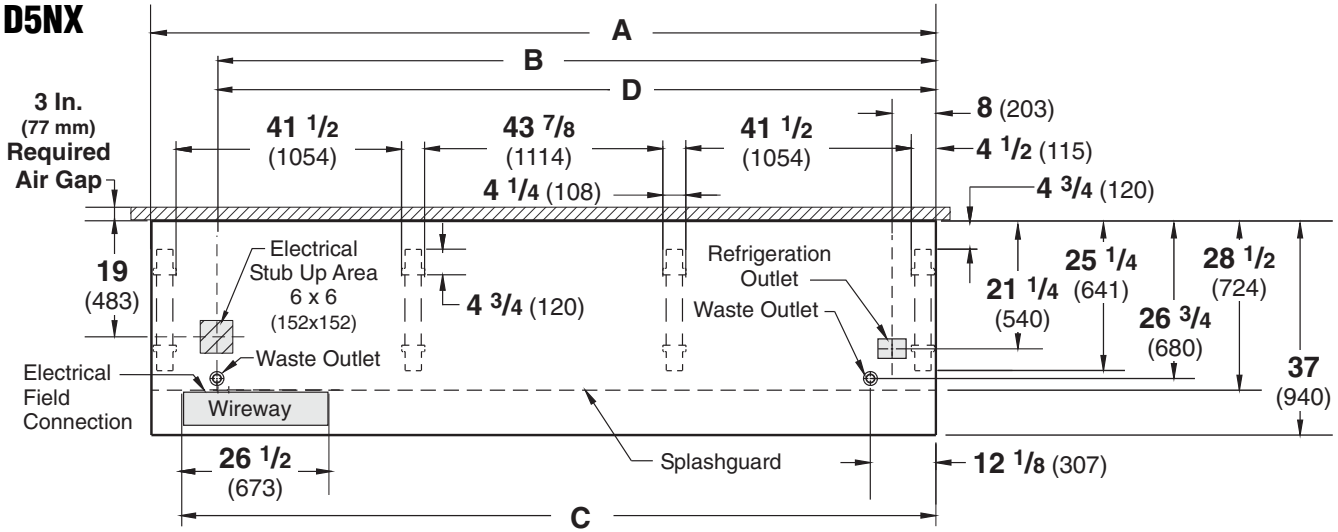
Narrow Dairy & Delicatessen

05-2006

Dimensions shown as in. and (mm).





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

D5NX



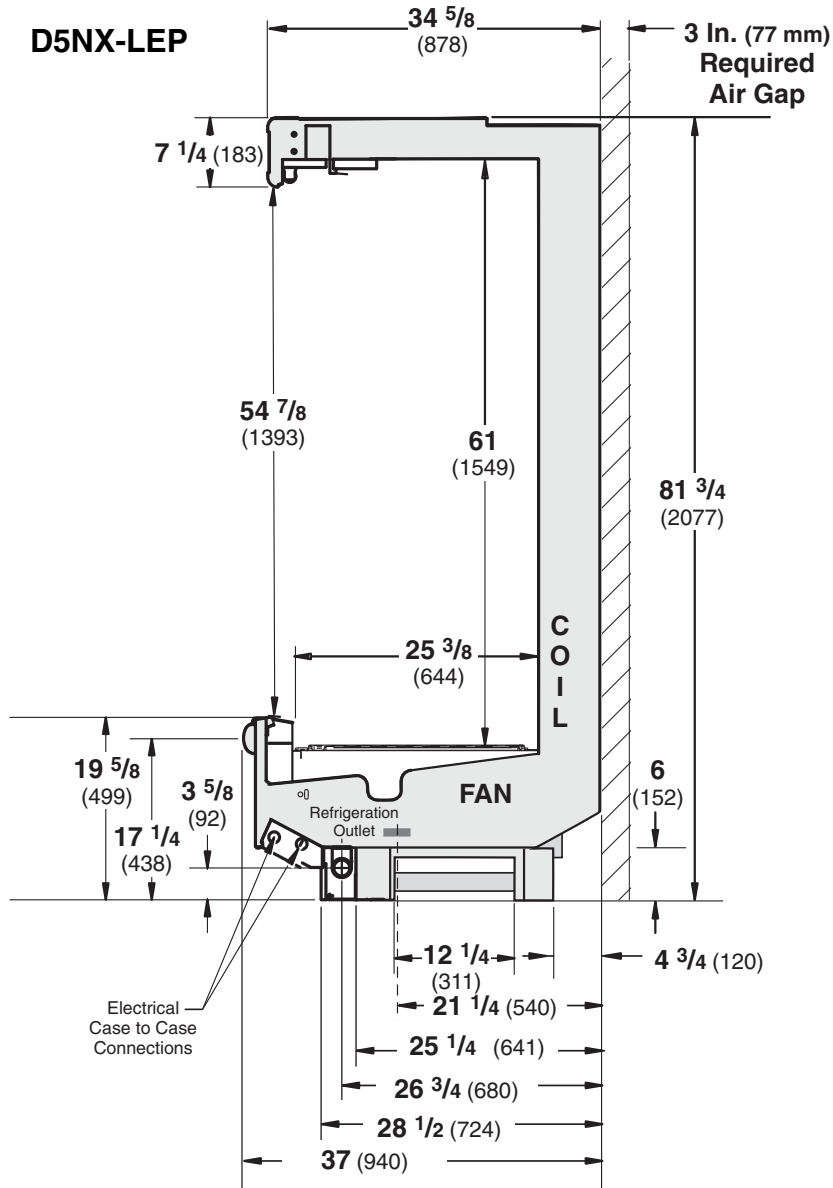
NOTE: Case-to-Case Electrical Connections are made IN FRONT OF SPLASHGUARD.

FRONT

| | 4 ft | 6 ft | 8 ft | 12 ft |
|---|---------------|---------------|---------------|----------------|
| General | | | | |
| (A) Case Length (<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> | 37 (940) | 37 (940) | 37 (940) | 37 (940) |
| Back of case to front of splashguard | 28 1/2 (724) | 28 1/2 (724) | 28 1/2 (724) | 28 1/2 (724) |
| Back of case to O/S edge of front leg | 25 1/4 (641) | 25 1/4 (641) | 25 1/4 (641) | 25 1/4 (641) |
| 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) |
| Electrical Service  (<i>Electrical Field Wiring connection point</i>) | | | | |
| (B) RH End of case to center of stub up area | 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 | 19 (483) | 19 (483) | 19 (483) | 19 (483) |
| Length of electrical wireway  | 26 1/2 (673) | 26 1/2 (673) | 26 1/2 (673) | 26 1/2 (673) |
| (C) RH End of case to LH end of wireway | 42 1/8 (1070) | 66 1/8 (1680) | 90 1/8 (2289) | 138 1/4 (3511) |
| Waste Outlets (<i>One each end</i>)  | | | | |
| (D) RH End of case to the center of LH waste outlet | 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 | 26 3/4 (680) | 26 3/4 (680) | 26 3/4 (680) | 26 3/4 (680) |
| Schedule 40 PVC drip pipe | 1 1/4 (32) | 1 1/4 (32) | 1 1/4 (32) | 1 1/4 (32) |
| Refrigeration Outlet  | | | | |
| Back of case to center of refrigeration outlet | 21 1/4 (540) | 21 1/4 (540) | 21 1/4 (540) | 21 1/4 (540) |
| RH end of case to center of refrigeration outlet | 8 (203) | 8 (203) | 8 (203) | 8 (203) |

Multi-deck, 5 Display Levels, Low Front, Narrow Footprint

Dimensions shown as in. and (mm).



NSF Certification

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

Impact Excel D5NX-LEP
Dairy & Delicatessen

REFRIGERATION DATA

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

| D5NX-LEP | Unlit | Lit |
|--------------------|-------|-----|
| Discharge Air (°F) | 32 | 30 |
| Evaporator (°F) | 28 | 26 |
| Unit Sizing (°F) | 26 | 24 |

Btu/hr/ft² — Unlit Shelves^{‡‡}

| D5NX-LEP | Parallel | Conventional |
|----------|----------|--------------|
| UNLIT | 1390 | 1470 |

[‡] Optional energy efficient motors reduce the refrigeration load by 27 Btu/hr/ft.
^{‡‡} Add 10 Btu/hr/ft per shelf row for LED fixtures.
 Add 20 Btu/hr/ft per shelf row for fluorescent lamps.

DEFROST DATA

| D5NX-LEP | |
|--|-------|
| Frequency Hr | 8 |
| Defrost Water (lb/ft/day) | 10.50 |
| (± 15% based on case configuration and product loading). | |

| OFFTIME | D5NX-LEP |
|----------------|----------|
| Time (Minutes) | 30 |

ELECTRIC OR GAS Not Recommended

CONVENTIONAL CONTROLS

Low Pressure Backup Control

| CI/CO* | D5NX-LEP |
|--------|------------|
| | 19°F / 9°F |

Indoor Unit Only, Pressure Defrost

| Termination* | 48°F |
|--------------|------|
|--------------|------|

*Use a Temperature Pressure Chart to determine PSIG conversions.

| Estimated Charge ** | D5NX-LEP | | |
|---------------------|----------|-------|--------|
| 4 ft | 1.6 lb | 26 oz | 0.7 kg |
| 6 ft | 2.3 lb | 37 oz | 1.0 kg |
| 8 ft | 3.2 lb | 51 oz | 1.5 kg |
| 12 ft | 4.5 lb | 72 oz | 2.0 kg |

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

Impact *Excel* D5NX-LEP

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 |
| Evaporator Fan | | | | | | | | | | |
| 120V | 60Hz | Standard | 0.65 | 1.00 | 1.30 | 1.95 | 50 | 78 | 100 | 150 |
| 120V | 50Hz | Standard | 0.75 | 1.10 | 1.50 | 2.25 | 57 | 84 | 114 | 171 |
| 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 |
| 120V | 60Hz | Energy Efficient | 0.30 | 0.38 | 0.60 | 0.90 | 18 | 28 | 36 | 54 |
| 230V | 60Hz | Energy Efficient | 0.15 | 0.20 | 0.30 | 0.45 | 18 | 28 | 36 | 54 |
| Minimum Circuit Ampacity | | | | | | | | | | |
| 120V | 60Hz | Standard | 0.85 | 1.20 | 1.50 | 2.15 | | | | |
| 120V | 50Hz | Standard | 0.95 | 1.30 | 1.70 | 2.45 | | | | |
| 230V | 60Hz | Export | 0.53 | 0.70 | 0.86 | 1.19 | | | | |
| 230V | 50Hz | Export | 0.58 | 0.76 | 0.96 | 1.34 | | | | |
| 120V | 60Hz | Energy Efficient | 0.50 | 0.58 | 0.80 | 1.10 | | | | |
| 230V | 60Hz | Energy Efficient | 0.35 | 0.40 | 0.50 | 0.65 | | | | |
| Maximum Over Current Protection 120V | | | 20 | 20 | 20 | 20 | | | | |
| Maximum Over Current Protection 230V | | | 15 | 15 | 15 | 15 | | | | |
| Standard Lighting (T-8 Fluorescent) | | | | | | | | | | |
| 1 Row Canopy | | | 0.26 | 0.51 | 0.51 | 0.77 | 30 | 59 | 59 | 85 |
| Optional Lighting (T-8 Fluorescent) | | | | | | | | | | |
| Additional 1 Row Canopy | | | 0.26 | 0.51 | 0.51 | 0.77 | 30 | 59 | 59 | 85 |
| Additional 2 Row Canopy | | | 0.51 | 1.02 | 1.02 | 1.54 | 59 | 118 | 118 | 170 |
| Additional 3 Row Canopy | | | 0.77 | 1.53 | 1.53 | 2.31 | 89 | 177 | 177 | 255 |
| 1 Row Rail Light | | | 0.26 | 0.51 | 0.51 | 0.77 | 30 | 59 | 59 | 85 |
| 1 Row of Shelves | | | 0.26 | 0.51 | 0.51 | 0.77 | 30 | 59 | 59 | 85 |
| 4 Rows of Shelves | | | 1.02 | 2.04 | 2.04 | 3.08 | 118 | 236 | 236 | 340 |
| 5 Rows of Shelves | | | 1.28 | 2.55 | 2.55 | 3.85 | 148 | 295 | 295 | 425 |
| 6 Rows of Shelves | | | 1.53 | 3.06 | 3.06 | 4.62 | 177 | 354 | 354 | 510 |
| EcoShine Multi-deck — Normal CRI—120VAC, 50/60Hz | | | | | | | | | | |
| 2 Row Canopy (Front & Rear) | | | 0.28 | 0.41 | 0.55 | 0.82 | 33 | 49 | 66 | 98 |
| 1 Row of Shelves | | | 0.10 | 0.15 | 0.20 | 0.29 | 12 | 18 | 24 | 35 |
| 4 Rows of Shelves | | | 0.39 | 0.58 | 0.78 | 1.17 | 47 | 70 | 93 | 140 |
| 5 Rows of Shelves | | | 0.48 | 0.73 | 0.97 | 1.45 | 58 | 87 | 116 | 174 |
| 6 Rows of Shelves | | | 0.58 | 0.88 | 1.17 | 1.74 | 70 | 105 | 140 | 209 |
| EcoShine Multi-deck — High CRI —120VAC, 50/60Hz | | | | | | | | | | |
| 2 Row Canopy (Front & Rear) | | | 0.32 | 0.47 | 0.63 | 0.93 | 38 | 56 | 75 | 112 |
| 1 Row of Shelves | | | 0.12 | 0.18 | 0.23 | 0.35 | 14 | 21 | 28 | 42 |
| 4 Rows of Shelves | | | 0.47 | 0.70 | 0.93 | 1.40 | 56 | 84 | 112 | 168 |
| 5 Rows of Shelves | | | 0.58 | 0.88 | 1.17 | 1.75 | 70 | 105 | 140 | 210 |
| 6 Rows of Shelves | | | 0.70 | 1.05 | 1.40 | 2.10 | 84 | 126 | 168 | 252 |
| Always*Bright Multi-deck —120VAC, 50/60Hz | | | | | | | | | | |
| 2 Row Canopy (Front & Rear) | | | 0.38 | 0.55 | 0.71 | 1.08 | 45 | 66 | 85 | 130 |
| 1 Row of Shelves | | | 0.15 | 0.19 | 0.23 | 0.38 | 18 | 23 | 28 | 45 |
| 4 Rows of Shelves | | | 0.47 | 0.68 | 0.93 | 1.40 | 56 | 82 | 112 | 168 |
| 5 Rows of Shelves | | | 0.57 | 0.83 | 1.13 | 1.69 | 68 | 99 | 136 | 203 |
| 6 Rows of Shelves | | | 0.67 | 0.96 | 1.33 | 2.00 | 80 | 115 | 160 | 240 |

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

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

Product Data

| | |
|--|---|
| Recommended Usable Cube ¹ (Cu Ft/Ft) | 7.10 ft ³ /ft (0.66 m ³ /m) |
| AHRI Total Display Area ² (Sq Ft/Ft) | 4.89 ft ² /ft (1.49 m ² /m) |
| Shelf Area ³ (Sq Ft/Ft) | 7.47 ft ² /ft (2.28 m ² /m) |

- ¹ AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
² Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]
³ 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 16-inch shelves.

| ESTIMATED SHIPPING WEIGHT ⁴ | | | | | |
|---|-----------|------------|------------|------------|-----------|
| Case | | | | | Solid End |
| | 4 ft | 6 ft | 8 ft | 12 ft | (each) |
| lb (kg) | 800 (363) | 1000 (454) | 1200 (544) | 1400 (635) | 100 (45) |

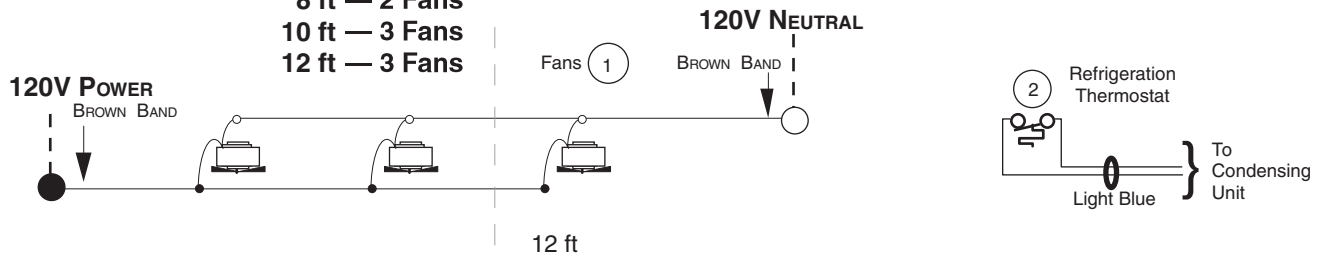
⁴ Actual weights will vary according to optional kits included.

| PARTS LIST (Continued from Page 1) | | | | | | | |
|---|------------------------------------|---------------------------|-------------------|-----|---------|---------------------------------------|--|
| Item | Part # | Description | | | Item | Part # | Description |
| LED FIXTURES AND POWER SUPPLY | | | | | | | |
| E. | 0501213 | Power Supply (EP.4481861) | | | (5) | F. | (CONTINUED) EcoShine LED Canopy Fixture |
| F. | EcoShine LED Canopy Fixture | | | (6) | 4441713 | Rear 36-inch | 2900K HCRI |
| | 4441720 | Front 48-inch | 2900K HCRI | | 4441715 | Rear 36-inch | 3500K HCRI |
| | 4441722 | Front 48-inch | 3500K HCRI | | 4441717 | Rear 36-inch | 3500K |
| | 4441724 | Front 48-inch | 3500K | | 4441719 | Rear 36-inch | 4100K |
| | 4441726 | Front 48-inch | 4100K | | G. | EcoShine LED Shelf Fixture (7) | |
| | 4441721 | Rear 48-inch | 2900K HCRI | | 4441590 | 48-inch | 2900K HCRI |
| | 4441723 | Rear 48-inch | 3500K HCRI | | 4441591 | 48-inch | 3500K HCRI |
| | 4441725 | Rear 48-inch | 3500K | | 4441592 | 48-inch | 3500K |
| | 4441727 | Rear 48-inch | 4100K | | 4441593 | 48-inch | 4100K |
| | 4441712 | Front 36-inch | 2900K HCRI | | 4441586 | 36-inch | 2900K HCRI |
| | 4441714 | Front 36-inch | 3500K HCRI | | 4441587 | 36-inch | 3500K HCRI |
| | 4441716 | Front 36-inch | 3500K | | 4441588 | 36-inch | 3500K |
| | 4441718 | Front 36-inch | 4100K | | 4441589 | 36-inch | 4100K |

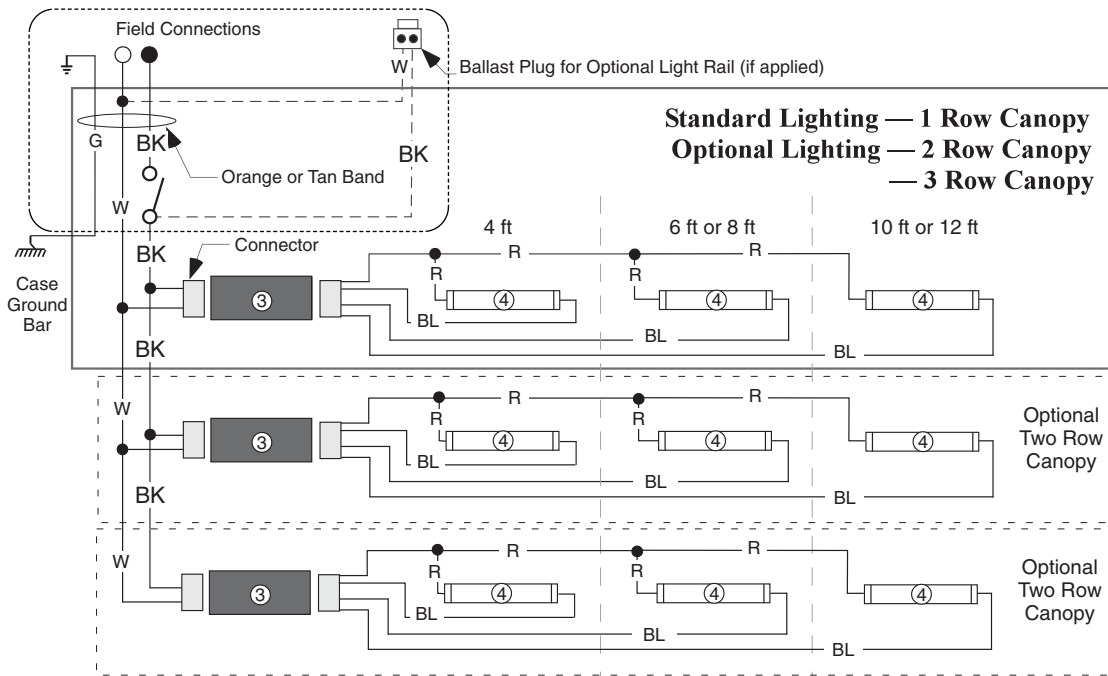
Note: Always*Bright lamps will be replaced with the latest generation of EcoShine lamps.

Fan Wiring Offtime Defrost

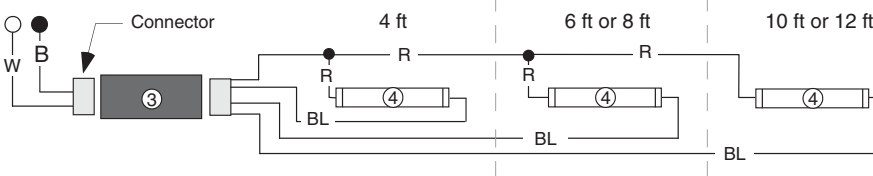
1, 2 & 3 Fans 4 ft — 1 Fan
 6 ft — 2 Fans
 8 ft — 2 Fans
 10 ft — 3 Fans
 12 ft — 3 Fans



Canopy Light Circuits — Fluorescent Fixtures



Optional Lighting — 1 Row Rail



WARNING

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

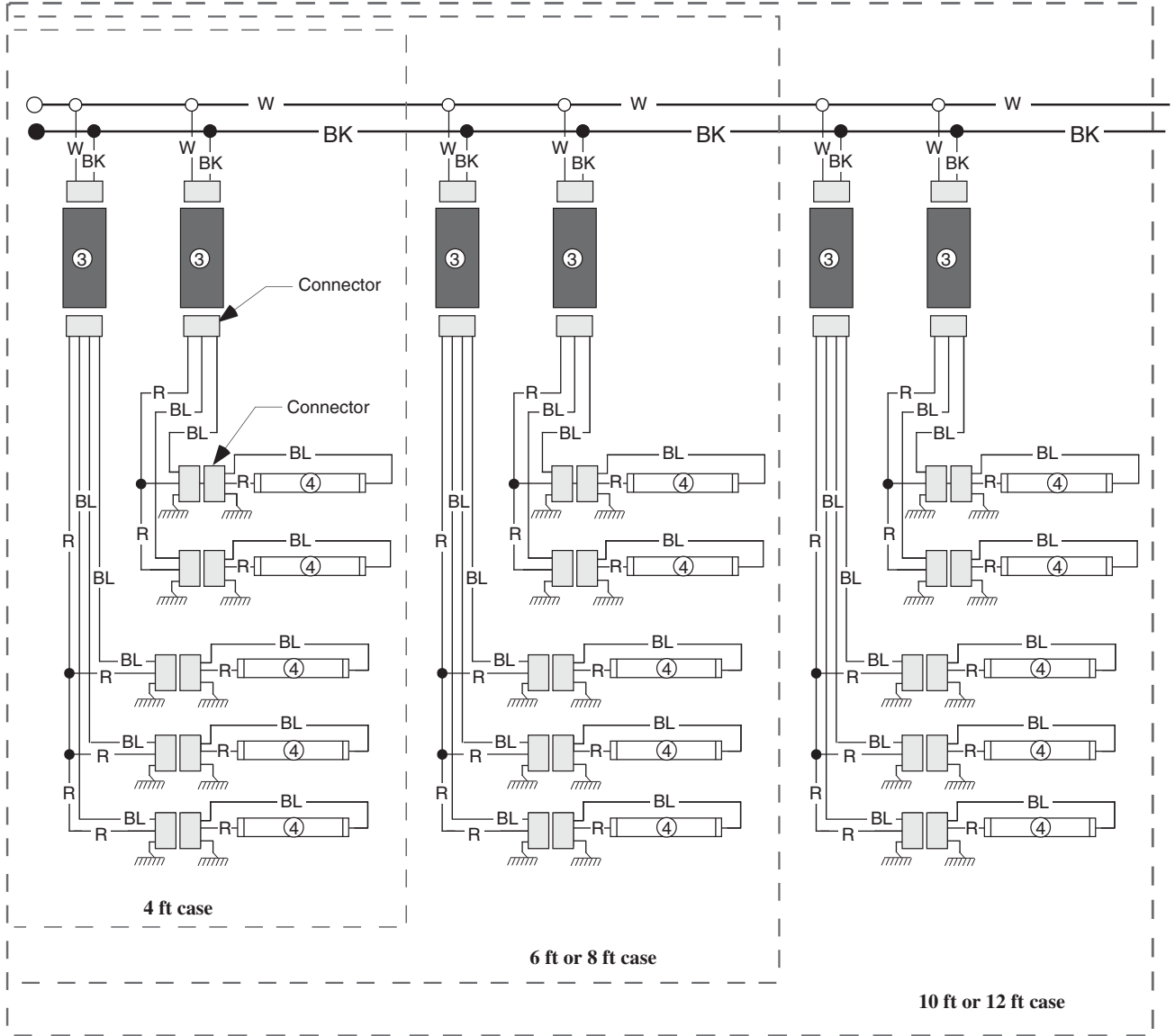
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

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

Optional Shelf Lighting Fluorescent Fixtures

Optional Shelf Harness and Light Circuits for Five Rows of Shelves



WARNING

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

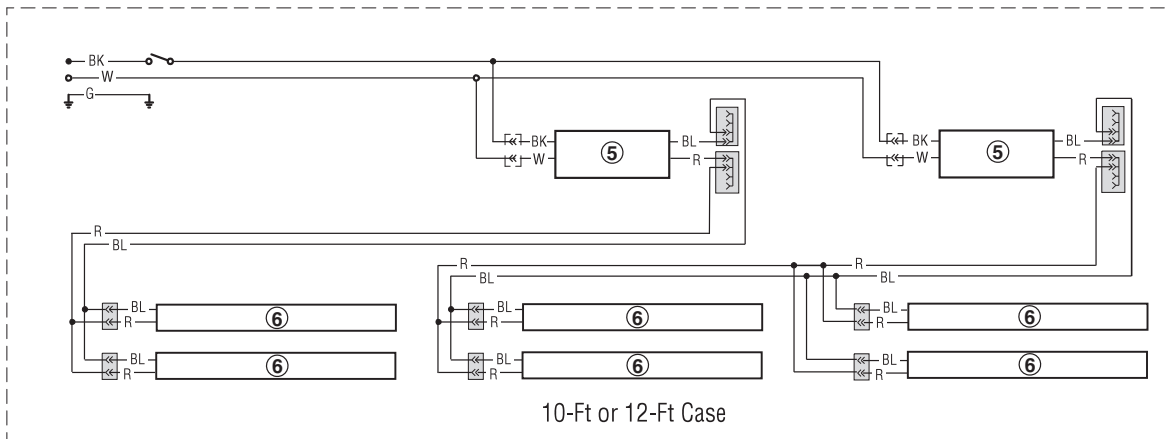
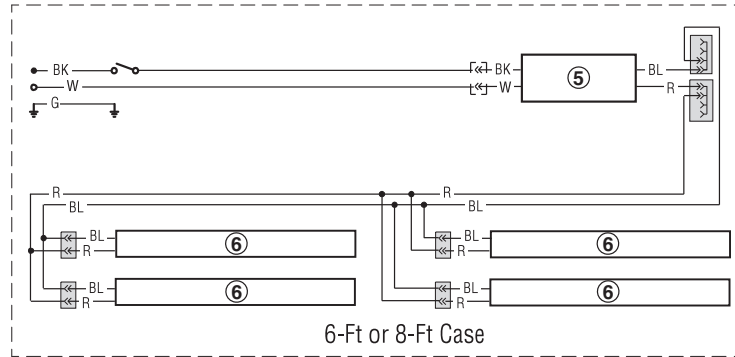
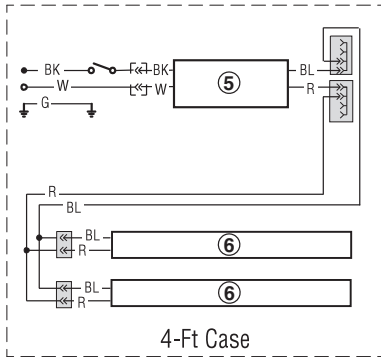
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Optional Canopy Lighting LED Fixtures

Standard LED Canopy Lighting — 2 Row Canopy



WARNING

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

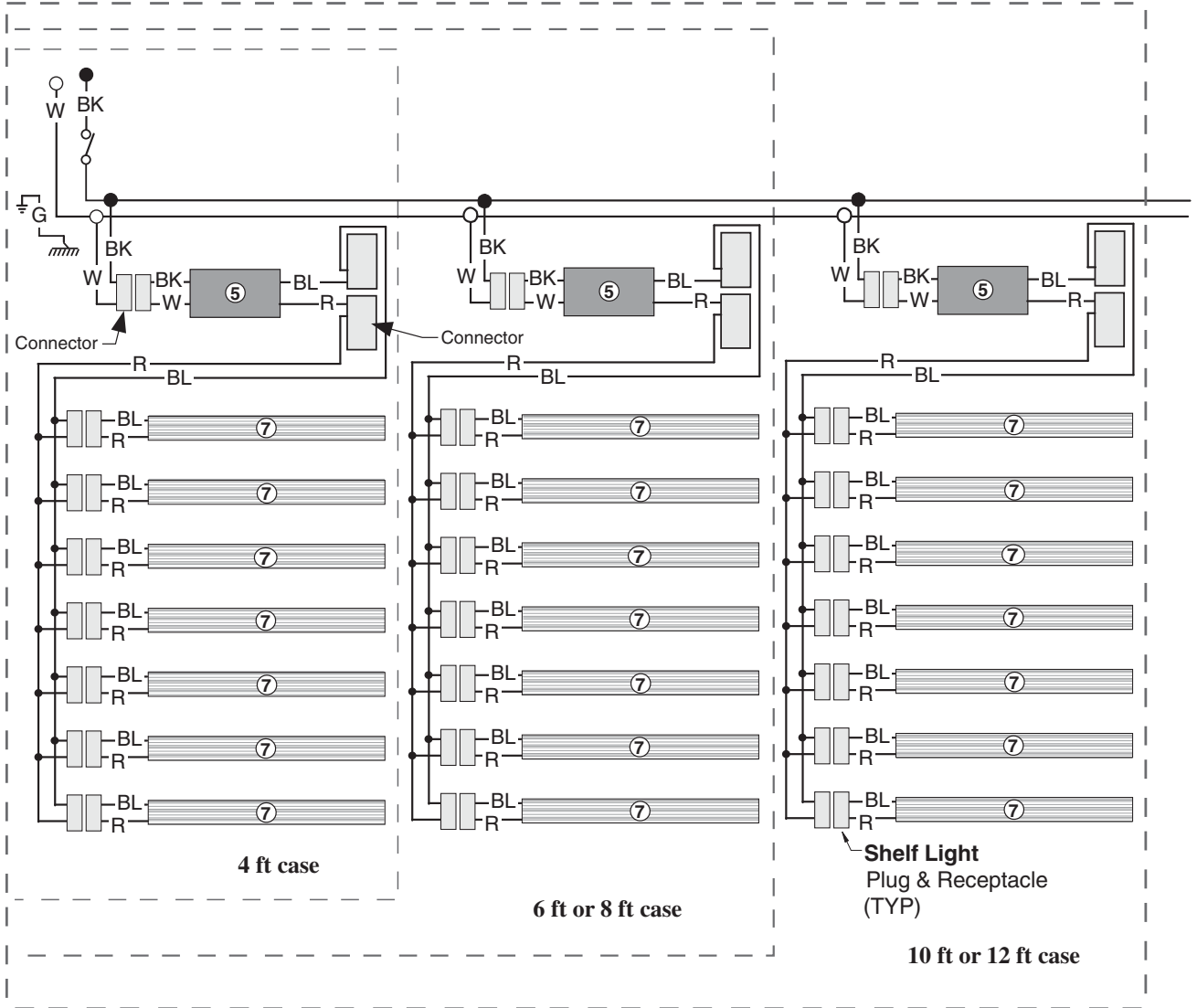
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

● = 120V POWER ○ = 120V NEUTRAL ⚡ = FIELD GROUND $\overline{\text{m}}$ = CASE GROUND

Optional Shelf Lighting LED Fixtures

Optional Shelf Harness and LED Light Circuits for 3, 4, 5, 6 & 7 Rows of Shelves



WARNING

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

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

- | | | | | |
|----------------|------------------|------------------|-----------------|-----------|
| R = Red | G = Green | BL = Blue | BK = Black | W = White |
| ● = 120V POWER | ○ = 120V NEUTRAL | ⏏ = FIELD GROUND | ⏏ = CASE GROUND | |