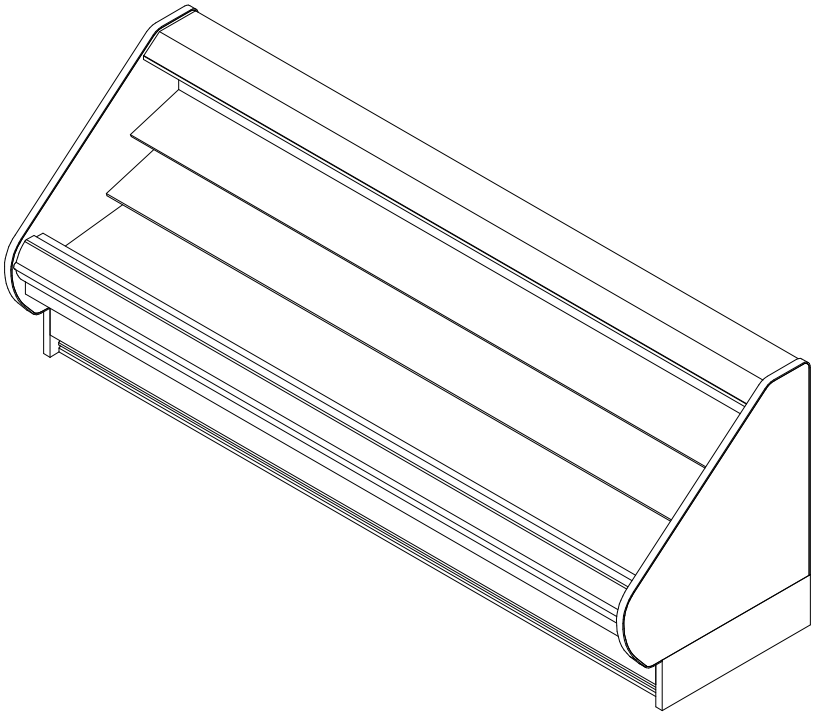
O3UM-NRG

4', 6', 8', 10' & 12' Multi-Deck Merchandiser with Synerg-E™
Bakery/Dairy/Cut Produce/Deli/Meat/Seafood

GENERAL NOTES:
- "---" indicates that the feature is not an option with this case model and/or the data is not available at this time.
- LED lights only.
- Maximum of 2 rows of standard output LED lighted shelves.
- Nose lights are not available.



SHIPPING WEIGHT	
Case	Weight
O3UM-NRG	---

2017 DOE COMPLIANT NSF c UL us COMPONENT

ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

O3UM-NRG

Rev. Date	Rev. #	Rev. Title
02-19-24	8	DATA UPDATE
09-13-22	7	DATA UPDATE

Clearvoyant LED SYSTEM

Hillphoenix a DOVER company

O3UM-NRG

4', 6', 8', 10' & 12' Multi-Deck Merchandiser with Synerg-E™
Bakery/Dairy/Cut Produce/Deli/Meat/Seafood

ELECTRICAL DATA			
Case Length	Fans Per Case	High Efficiency Fans 120 Volts	
		Amps	Watts
4'	1	0.16	11.0
6'	2	0.32	22.0
8'	2	0.32	22.0
10'	3	0.48	33.0
12'	3	0.48	33.0

LIGHTING DATA						
Case Length	Lights Per Row	Light Length	Clearvoyant LED Lighting (Per Light Row)			
			Standard Power (Cornice or Shelf)		High Power (Cornice)	
			120 Volts		120 Volts	
			Amps	Watts	Amps	Watts
4'	1	4'	0.05	5.9	0.12	14.9
6'	2	3'	0.08	9.4	0.20	23.8
8'	2	4'	0.10	11.8	0.25	29.9
10'	3	3'/4'	0.13	15.3	0.32	38.7
12'	3	4'	0.15	17.6	0.37	44.8

GUIDELINES AND CONTROL SETTINGS {DIRECT EXPANSION HFC/CO2}							
Application	Front Sill Height	BTUH/ft		Superheat Set Point @ Bulb (°F)	Evaporator (°F)	Discharge Air (°F)	Discharge Air Velocity (FPM)
		Conventional	Parallel				
Bakery/Dairy/Cut Produce/Deli	All	926	810	6 - 8	28	31	110
Meat/Seafood	Extended	915	800	6 - 8	26	30	110

DEFROST CONTROLS {DIRECT EXPANSION HFC/CO2}		
Defrosts Per Day	Timed-Off Defrost	
	Fail-Safe (Min)	Termination Temp (°F)
6	30	47

NOTES:

- Listed BTUH/ft data represent unlighted shelves. For LED lighting, add 9 BTUH/ft per row of lighted shelving.
- BTUH load increases by 132 BTUH/ft when aftermarket merchandising accessories are utilized.
- Listed evaporator temperature represents unlighted shelves. For lighted shelves and/or aftermarket merchandising accessories, reduce the listed evaporator temperature by 2°F.
- Conventional Discharge Air Control – Recommended Settings: Cut-In Temp = Discharge Air + 2°F; Cut-Out Temp = Discharge Air - 2°F.
- Listed discharge air velocity represents the average velocity immediately after defrost completion using a Testo 410i vane anemometer with anemometer air scoop (HP part number P109185M) positioned adjacent to the interior edge of the discharge honeycomb.
- Temperature and defrost settings listed above are recommended start-up settings. Final operational settings may need to be adjusted for the store conditions in which the case operates.
- The recommended evaporator temperatures may need to be adjusted based on system setup, store conditions, etc. The minimum recommended evaporator temperature is 4°F below the listed evaporator temperature.
- Discharge air temperature values represent readings taken within the upper air channel immediately behind/upstream of the honeycomb.
- For optimal defrost performance, it is recommended to close both the liquid line and suction line during defrost. Published defrost data are based upon this configuration. Parameter changes may be required if alternative control methods are used.

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Clearvoyant LED System

Hillphoenix a DOVER company

O3UM-NRG

4', 6', 8', 10' & 12' Multi-Deck Merchandiser with Synerg-E™
Bakery/Dairy/Cut Produce/Deli/Meat/Seafood

SECOND NATURE DATA

Case Model	No. of Coils	Application	Front Sill Height	BTUH/FT		GPM/ft (DR)	Supply Fluid Temp (°F)	Discharge Air Temp (°F)
				Conventional	Parallel			
O3UM-NRG	1	Bulk Produce	Standard	926	810	0.11	20	38
O3UM-NRG	1	Deli/Produce	Standard	926	810	0.23	20	31
O3UM-NRG	1	Meat	3" Extended	915	800	0.28	20	30
O3UM-NRG	1	Bulk Produce	Standard	926	810	0.19	25	38
O3UM-NRG	1	Deli/Produce	Standard	926	810	0.60	25	31
O3UM-NRG	1	Meat	3" Extended	915	800	0.83	25	30

SECOND NATURE DATA

Case Model	No. of Coils	Application	Front Sill Height	Supply Fluid Temp (°F)	No. of Defrost	Timed-Off Defrost		Warm Fluid Defrost	
						Fail-Safe (Min)	Termination Temp (°F)	Fail-Safe (Min)	Termination Temp (°F)
O3UM-NRG	1	Bulk Produce	Standard	20	6	60	47	26	49
O3UM-NRG	1	Deli/Produce	Standard	20	6	60	47	26	49
O3UM-NRG	1	Meat	3" Extended	20	6	60	47	26	49
O3UM-NRG	1	Bulk Produce	Standard	25	6	45	42	26	49
O3UM-NRG	1	Deli/Produce	Standard	25	6	45	42	26	49
O3UM-NRG	1	Meat	3" Extended	25	6	45	42	26	49

NOTES:

- All medium temperature data listed is for 35% by wt. PROPYLENE GLYCOL.
- Inhibited Propylene Glycol solution with water, such as Dowfrost or equivalent. (Dowfrost is a trademark of the Dow Chemical Company).
- Flow rates are determined by ASHRAE test conditions and may need to be adjusted based on store conditions.
- ** Flow rates are per case.

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Bakery/Dairy/Cut Produce/Deli/Meat/Seafood

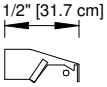
REAR SILL OPTIONS

STANDARD REAR SILL

8 1/2" [21.7 cm]

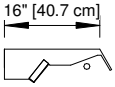
12 1/2" REAR SILL

12 1/2" [31.7 cm]



16" REAR SILL (REAR DISCHARGE)

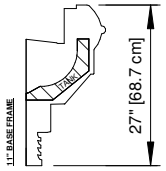
16" [40.7 cm]



FRONT OPTIONS

ORIGIN 2 FRONT

STANDARD FRONT



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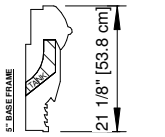

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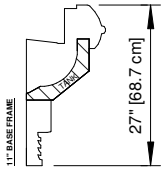

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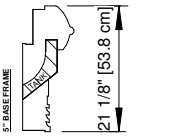
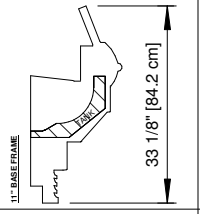


6" THERMOPANE FRONT



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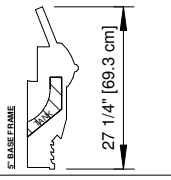

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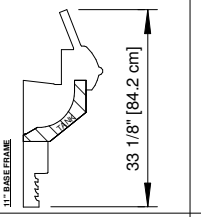

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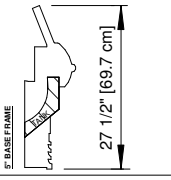
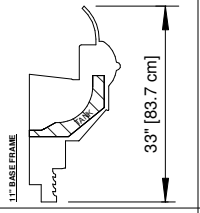


6" PLEXIGLAS FRONT



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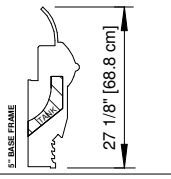

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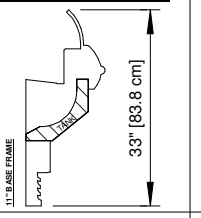

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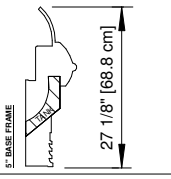
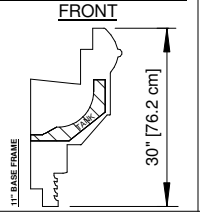


EXTENDED STANDARD FRONT



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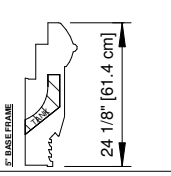

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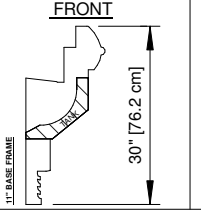

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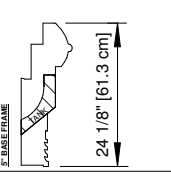
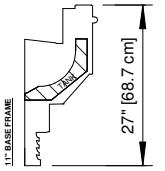


FLAT FRONT FLAT TOP

STANDARD FRONT



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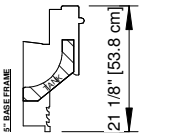
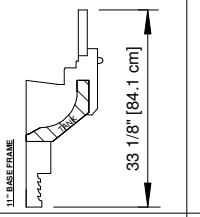


6" THERMOPANE FRONT



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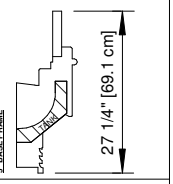
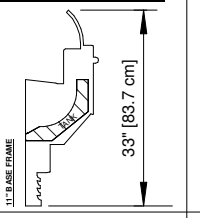


6" PLEXIGLAS FRONT



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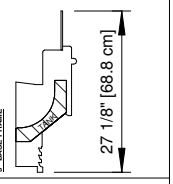

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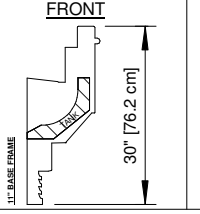

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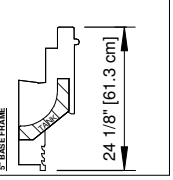
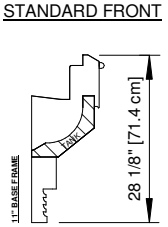


FLAT FRONT ANGLED TOP

STANDARD FRONT



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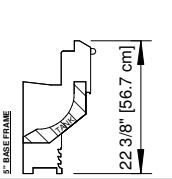

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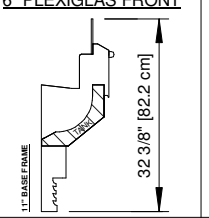

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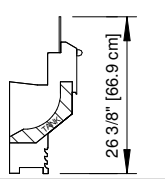
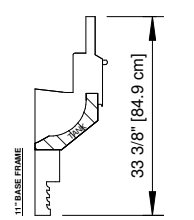


6" THERMOPANE FRONT



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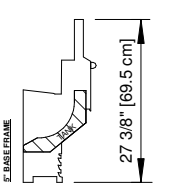
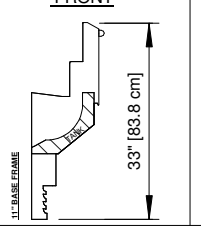


EXTENDED STANDARD FRONT



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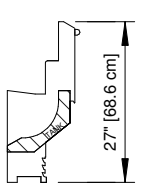

NOTES:

- Front and rear sill height vary with base frame height.
- Extended front sills are required on meat applications to maintain proper product temperature. An extended front has a minimum height of 24" on a 5" base frame, or 30" on an 11" base frame.

2017 DOE COMPLIANT

NSF

c UL us COMPONENT

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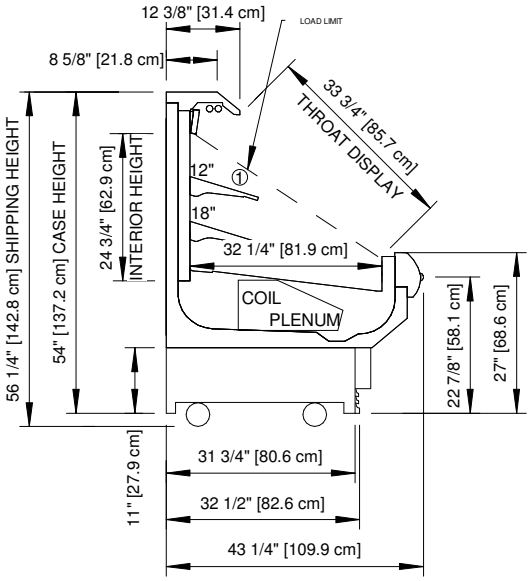
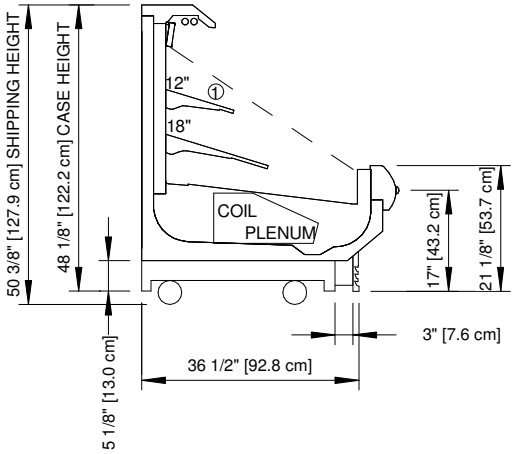
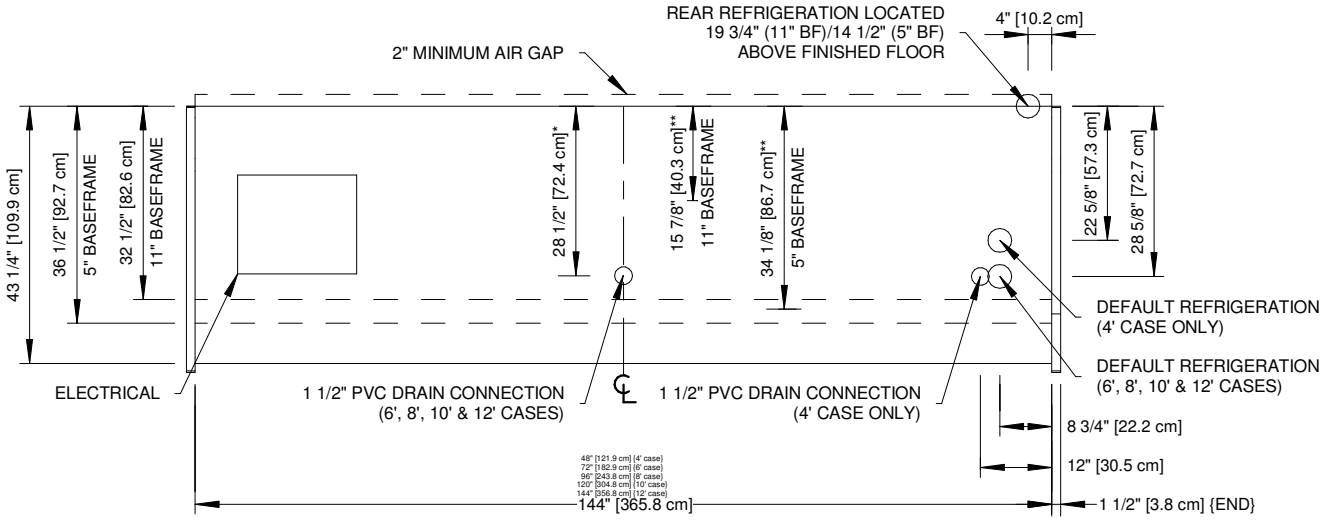
Bakery/Dairy/Cut Produce/Deli/Meat/Seafood



11" BASE FRAME



5" BASE FRAME



NOTES:

* :STUB-UP AREA

** : RECOMMENDED STUP-UP CENTERLINE FOR ELECTRICAL AND HUB DRAINS

① :AVAILABLE SHELF SIZES: 10", 12", 14", 16" & 18"

- Ends add approximately 1" to case height, 1" to the front & 1/2" to the back.
- Product on top shelf should be 3 inches below discharge.

2017 DOE COMPLIANT

NSF

c UL us COMPONENT

ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

O3UM-NRG

Rev. Date	Rev. #	Rev. Title
02-19-24	8	DATA UPDATE
09-13-22	7	DATA UPDATE

Clearvoyant LED SYSTEM

Hillphoenix a DOVER company