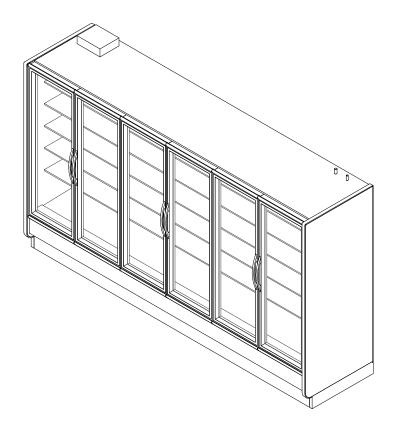


GENERAL NOTES

- · 4-foot case Bi-Swing consist of 2 (24") doors.
- 6-foot case Bi-Swing consist of 3 (24") doors.
- 8-foot cases single swing consist of 3 (32") doors.
- 8-foot case Bi-swing consist of 4 (24") doors.
- 12-foot cases single swing consist of 4 (36") doors.
- 12-foot cases Bi-swing consist of 6 (24") doors.
- Lighting controls occupancy sensors are required. Option 1: OEM Provided: Lighting controls (on/off) are standard unless otherwise specified. Option 2: End User Provided: Light controls should be based on occupancy sensors.



SHIPPING WEIGHT				
Case	Weight			
ONRBH				



ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72-2005 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

Rev. Date Rev. # Rev. Title 9-26-19 7 DATA UPDATE 9-25-19 6 ENDVIEW UPDATE



ONRBH

ELECTRICAL DATA

		High Effic	iency Fans
Case	Fans Per	120	Volt
Length	Case	Amps	Watts
1 Door	1	0.22	26
2 Door	2	0.44	53
3 Door	3	0.66	79
4 Door	4	0.88	106
5 Door	5	1.10	132
6 Door	6	1.32	158
4'	1	0.22	26
6'	2	0.44	53
8'	2	0.44	53
12'	3	0.66	79

LIGHTING DATA

		OP45 OP55			n Swing Only)
Case		120	Volts	120 '	Volts
Length	Door Size	Amps	Watts	Amps	Watts
1 Door	31"	0.18	21.0		
2 Door	30"	0.36	43.1		
3 Door	30"	0.54	65.2		
4 Door	30"	0.73	87.3		
5 Door	30"	0.91	109.4		
6 Door	30"	1.10	131.5		
4'	24"			0.26	31.0
6'	24"			0.52	61.9
8'	24"			0.52	61.9
8'	32"	0.54	65.2		
12'	24"			0.77	92.8
12'	36"	0.73	87.3		

ANTI CONDENSATE DATA

ANTI CONDENCATE DATA						
		101 F	rames	Vista	Frames	
		Un Heated Doors		Un Heated Doors		
		ELMD, E	LMH, 190	Vista	C, 160	
		120	Volts	120	Volts	
Case Length	Door Size	Amps	Watts	Amps	Watts	
1 Door	30"	0.18	22	0.18	22	
2 Door	30"	0.36	43	0.36	43	
3 Door	30"	0.55	66	0.55	66	
4 Door	30"	0.75	90	0.75	90	
5 Door	30"	0.94	113	0.94	113	
6 Door	30"	1.15	138	1.15	138	
4'	24"	0.20	24	0.20	24	
6'	24"	0.39	47	0.39	47	
8'	24"	0.43	52	0.43	52	
8'	32"	0.56	67	0.52	62	
12'	24"	0.68	82	0.68	82	
12'	36"	0.80	96	0.80	96	



COMPONENT ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72-2005 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

Rev. Date	Rev. #	Rev. Title
9-26-19	7	DATA UPDATE
9-25-19	6	ENDVIEW UPDATE



GUIDLINES AND CONTROL DATA

GOIDEINES	AND CON		1	· _				.
	Case	Door	BTUH	Door	Superheat Set Point @ Bulb	Evaporator	Discharge Air	Discharge Air Velocity
Application	Length	Size	Conventional	Parallel	(°F)	(°F)	(°F)	(FPM)
Beverage	1 - 6 Door	30"	635	585	4 - 6	34	40	250
Beverage	4'	24"	505	465	4 - 6	34	40	250
Beverage	6'	24"	505	465	4 - 6	34	40	250
Beverage	8'	24"	505	465	4 - 6	34	40	250
Beverage	8'	32"	675	620	4 - 6	34	40	250
Beverage	12'	24"	505	465	4 - 6	34	40	250
Beverage	12'	36"	760	700	4 - 6	34	36	250
Deli / Dairy	1 - 6 Door	30"	650	595	4 - 6	30	36	250
Deli / Dairy	4'	24"	520	475	4 - 6	30	36	250
Deli / Dairy	6'	24"	520	475	4 - 6	30	36	250
Deli / Dairy	8'	24"	520	475	4 - 6	30	36	250
Deli / Dairy	8'	32"	695	635	4 - 6	30	36	250
Deli / Dairy	12'	24"	520	475	4 - 6	30	36	250
Deli / Dairy	12'	36"	780	715	4 - 6	30	36	250
Meat	1 - 6 Door	30"	725	670	4 - 6	28	34	250
Meat	4'	24"	580	535	4 - 6	28	34	250
Meat	6'	24"	580	535	4 - 6	28	34	250
Meat	8'	24"	580	535	4 - 6	28	34	250
Meat	8'	32"	775	715	4 - 6	28	34	250
Meat	12'	24"	580	535	4 - 6	28	34	250
Meat	12'	36"	870	805	4 - 6	28	34	250

DEFROST CONTROLS

	Timed-Off Defrost					
Defrosts Per	Fail-Safe	Termination Temp				
Day	(Min)	(°F)				
4	30	47				

NOTES

- "---" indicates that this feature is not an option for this case model.
- Data listed is for Optimax Radiant. For other lighting options, please contact your sales representative.
- · Anti-condensate heat values represent a door with no heat.
- · Listed discharge air velocity represents the average velocity at the peak of defrost.
- 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.
- Light wattages above reflect 100% run time. To determine actual daily energy usage at 75°F/55%RH conditions, reduce the light wattage by 42%.



ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72-2005 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

Rev. Date	Rev. #	Rev. Title
9-26-19	7	DATA UPDATE
9-25-19	6	ENDVIEW UPDATE



SECOND NATURE DATA

	No. of			BTUH/C)oor	GPM/ft	Supply Fluid	Discharge Air
Case Model	Coils	Application	Front Sill height	Conventional	Parallel	(DR)	Temp (°F)	Temp (°F)
ONRBH (30" Door)	1	Beverage	Std. Reach In	635	585	0.07	20	36
ONRBH (30" Door)	1	Deli/Dairy	Std. Reach In	650	595	0.10	20	38
ONRBH (30" Door)	1	Meat	Std. Reach In	725	670	0.13	20	34
ONRBH (30" Door)	1	Beverage	Std. Reach In	635	585	0.10	25	36
ONRBH (30" Door)	1	Deli/Dairy	Std. Reach In	650	595	0.15	25	38
ONRBH (30" Door)	1	Meat	Std. Reach In	725	670	0.19	25	34
ONRBH (Per Foot)	1	Beverage	Std. Reach In	253	233	0.03	20	34
ONRBH (Per Foot)	1	Deli/Dairy	Std. Reach In	260	238	0.04	20	34
ONRBH (Per Foot)	1	Meat	Std. Reach In	290	268	0.05	20	34
ONRBH (Per Foot)	1	Beverage	Std. Reach In	253	233	0.04	25	34
ONRBH (Per Foot)	1	Deli/Dairy	Std. Reach In	260	238	0.06	25	34
ONRBH (Per Foot)	1	Meat	Std. Reach In	290	268	0.08	25	34

SECOND NATURE DATA

				Supply		Timed-0	Off Defrost	Warm F	luid Defrost
	No. of			Fluid	No. of	Fail-Safe	Termination	Fail-Safe	Termination
Case Model	Coils	Application	Front Sill height	Temp (°F)	Defrost	(Min)	Temp (°F)	(Min)	Temp (°F)
ONRBH (30" Door)	1	Beverage	Std. Reach In	20	4	60	47	26	49
ONRBH (30" Door)	1	Deli/Dairy	Std. Reach In	20	4	60	47	26	49
ONRBH (30" Door)	1	Meat	Std. Reach In	20	4	60	47	26	49
ONRBH (30" Door)	1	Beverage	Std. Reach In	25	4	45	47	26	49
ONRBH (30" Door)	1	Deli/Dairy	Std. Reach In	25	4	45	47	26	49
ONRBH (30" Door)	1	Meat	Std. Reach In	25	4	45	47	26	49
ONRBH (Per Foot)	1	Beverage	Std. Reach In	20	4	60	47	26	49
ONRBH (Per Foot)	1	Deli/Dairy	Std. Reach In	20	4	60	47	26	49
ONRBH (Per Foot)	1	Meat	Std. Reach In	20	4	60	47	26	49
ONRBH (Per Foot)	1	Beverage	Std. Reach In	25	4	45	47	26	49
ONRBH (Per Foot)	1	Deli/Dairy	Std. Reach In	25	4	45	47	26	49
ONRBH (Per Foot)	1	Meat	Std. Reach In	25	4	45	47	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).

• Flowrates are determined by ASHRAE test conditions and may need to be adjusted based on store conditions.

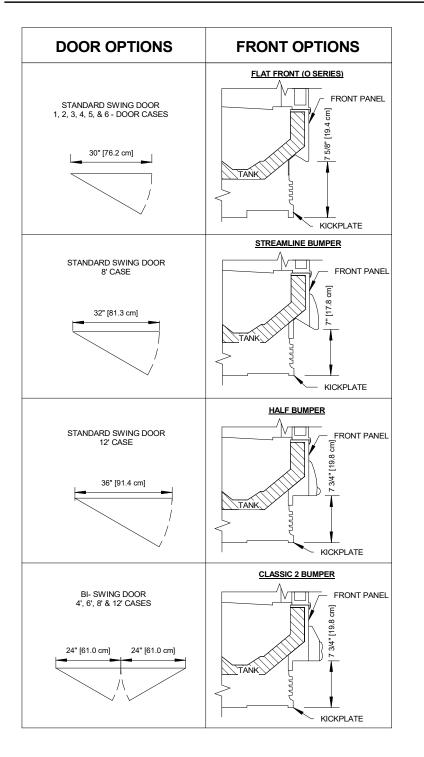
** Flowrates are per case



ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72-2005 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

Rev. Date	Rev. #	Rev. Title
9-26-19	7	DATA UPDATE
9-25-19	6	ENDVIEW UPDATE





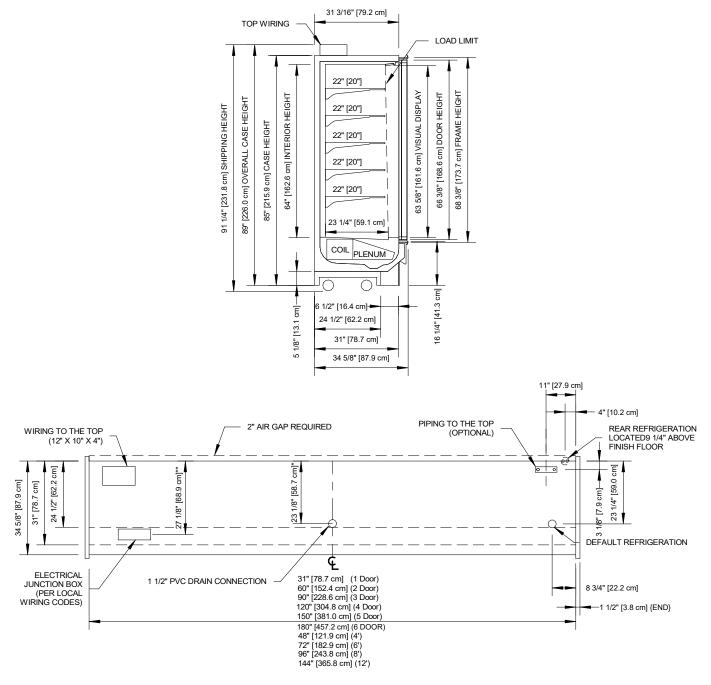


ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72-2005 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

Rev. Date	Rev. #	Rev. Title
9-26-19	7	DATA UPDATE
9-25-19	6	ENDVIEW UPDATE



ONRBH



NOTES

* : STUB-UP AREA.

** : RECOMMENDED STUB-UP CENTERLINE FOR ELECTRICAL AND HUB DRAINS.

- Ends add approximately 1" to case height, 1/2" to the back & 1" to the front.
- Back panels add approximately 1" to the rear of the case.



ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72-2005 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

Rev. Date	Rev. #	Rev. Title
9-26-19	7	DATA UPDATE
9-25-19	6	ENDVIEW UPDATE

